



Kişilerarası Psikoterapi Temelli Grup Psikolojik Danışmanlığının Psikolojik Sağlamlık Üzerindeki Etkisinin İncelenmesi *

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Özet

Bu çalışma, ortalamanın altında dayanıklılık puanına sahip üniversite öğrencilerinde, kişilerarası psikoterapi (KİPT) temelli grup danışmanlığının psikolojik dayanıklılığın belirli yönlerini, yani stres faktörlerinden kurtulmayı ve başa çıkma becerilerini geliştirmedeki etkinliğini değerlendirmeyi amaçlamıştır. İki ayrı uygulamada yarı deneysel ön test-son test kontrol grubu tasarımı kullanılmıştır. İlk müdahalede, 225 öğrenci Kısa Dayanıklılık Ölçeği'ni (BRS) tamamlamış ve ortalamanın altında puan alan 16 öğrenci (8 deney grubu, 8 kontrol grubu) seçilmiştir ($\bar{x} = 15,76$, $SD = 4,79$). İkinci müdahalede, 58 öğrenci taranmış ve ortalamanın altında puan alan 16 öğrenci (8 deney grubu, 8 kontrol grubu) seçilmiştir ($\bar{x} = 16,92$, $SD = 5,02$). Deney grubundaki katılımcılar, her biri 60 dakika süren sekiz haftalık çevrimiçi KPT temelli grup danışmanlığı seansına katılırken, kontrol grupları herhangi bir müdahale almamıştır. Psikolojik dayanıklılık üç zaman noktasında (ön test, son test ve 3 aylık takip) ölçülmüş ve tek yönlü varyans analizi (ANOVA) kullanılarak analiz edilmiştir. Her iki müdahalede de deney grupları, kontrol gruplarına kıyasla ön testten takibe kadar psikolojik dayanıklılıkta istatistiksel ve klinik olarak anlamlı iyileşmeler göstermiştir. 1. müdahalede deney grubu, ön testten takibe kadar anlamlı bir fark göstermiştir ($F = 10,950$, $p = .010$). Kontrol grubu ön testten son teste ve takibe kadar anlamlı farklılıklar göstermiştir ($F = 13,488$, $p = .001$). 2. Müdahalede, deney grubu ön testten takibe kadar anlamlı bir fark göstermiştir ($F = 10,806$, $p = .001$). Kontrol grubunda anlamlı bir fark gözlenmemiştir ($F = 5,822$, $p = .014$). Kişilerarası Psikoterapi (IPT) temelli grup danışmanlığı, düşük dirençli üniversite öğrencileri arasında iyileşmeyi ve uyumlu başa çıkmayı etkili bir şekilde desteklemektedir. Küçük örneklem boyutu ve çevrimiçi format sınırlamaları getirirse de, bulgular IPT'nin daha geniş ve daha çeşitli öğrenci popülasyonlarında daha fazla araştırılmayı hak ettiğini göstermektedir.

Başvuru Tarihi

3 Nisan 2026

Onay Tarihi

18 Haziran 2026

Anahtar Kelimeler:

Kişilerarası Psikoterapi,
Psikolojik Sağlamlık,
İyi Oluş.

Makale Türü:

Araştırma Makalesi.

Önerilen Atf:

Batmaz, A. & Çelik, E. (2026). Kişilerarası psikoterapi temelli grup psikolojik danışmanlığının psikolojik sağlamlık üzerindeki etkisinin incelenmesi. *Siirt Sosyal Araştırmalar Dergisi*, 5(2), 1-16.
<https://doi.org/10.5281/zenodo.21157804>

* Bu çalışma, ilk yazarın Sakarya Üniversitesi Eğitim Bilimleri Enstitüsü'nde tamamladığı doktora tezinden türetilmiştir.

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*Examining the Effect of Interpersonal Psychotherapy-Based Group Counseling on Psychological Resilience **

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Abstract

This study aimed to evaluate the effectiveness of interpersonal psychotherapy (IPT)-based group counseling in improving specific aspects of psychological resilience, namely stress relief and coping skills, in university students with below-average resilience scores. A quasi-experimental pretest-posttest control-group design was used for two separate interventions. In the first intervention, 225 students completed the Brief Resilience Scale (BRS), and 16 students with below-average scores (8 in the experimental group, 8 in the control group) were selected ($\bar{x} = 15.76$, $SD = 4.79$). In the second intervention, 58 students were screened, and 16 with below-average scores (8 in the experimental group, 8 in the control group) were selected ($\bar{x} = 16.92$, $SD = 5.02$). Participants in the experimental group attended eight weeks of online IPT-based group counseling sessions, each lasting 60 minutes, while the control group received no intervention. Psychological resilience was measured at three time points (pre-test, post-test, and 3-month follow-up) and analyzed using one-way analysis of variance (ANOVA). In both interventions, the experimental groups showed statistically and clinically significant improvements in psychological resilience from pre-test to follow-up compared to the control groups. In intervention 1, the experimental group showed a significant difference from pre-test to follow-up ($F = 10.950$, $p = .010$). The control group showed significant differences from pre-test to post-test and follow-up ($F = 13.488$, $p = .001$). In intervention 2, the experimental group showed a significant difference from pre-test to follow-up ($F = 10.806$, $p = .001$). No significant difference was observed in the control group ($F = 5.822$, $p = .014$). Interpersonal Psychotherapy (IPT)-based group counseling effectively supports recovery and adaptive coping among university students with low resilience. Despite the limitations imposed by the small sample size and online format, the findings suggest that IPT warrants further research across broader, more diverse student populations.

Submitted
3 April 2026

Accepted
18 June 2026

Keywords:
*Interpersonal
Psychotherapy,
Psychological Resilience,
Well-Being.*

Article type:
Research Article.

Suggested Citation:

Batmaz, A. & Çelik, E. (2026). Examining the effect of interpersonal psychotherapy-based group counseling on psychological resilience. *Siirt Journal of Social Research*, 5(2), 1-16.
<https://doi.org/10.5281/zenodo.21157804>

* This study is derived from the first author's doctoral thesis, completed at the Institute of Educational Sciences, Sakarya University.

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INTRODUCTION

Adverse events in the health, economic, and social fields may negatively affect the mental health of some individuals across various demographic and socioeconomic groups. Economic crises, increased unemployment rates, and financial insecurity may increase stress and anxiety levels in individuals (Mucci et al., 2016). Similarly, crises in the field of health, pandemics, and problems in accessing health services can seriously threaten individuals' mental health (Johnson & Johnson, 2019). In such situations, individuals' psychological resiliences can be negatively affected. When psychological resilience is low, it appears as a mental health problem that needs to be improved, as the daily lives of individuals are negatively affected. Psychological resilience is generally accepted as an antecedent of mental health. That is, individuals having high levels of psychological resilience can help them maintain their mental health and be more resilient to stress, trauma, or other adverse life events (Rutter, 2012). In this context, psychological resilience draws attention as an essential concept that expresses individuals' ability to cope with trauma and stress in their lives (Masten, 2014; Reivich & Shatté, 2002). Psychological resilience is an important concept that expresses the ability of individuals to cope with trauma and stress in their lives. This concept refers to a person's ability to remain psychologically resilient in the face of adverse events (Reivich & Shatté, 2002). In addition, Masten (2014) defines psychological resilience as the ability to resist and overcome adverse conditions. Especially in stressful or traumatic situations, individuals with psychological resilience can effectively use various coping strategies to alleviate adverse effects (Bonanno, 2004).

Interpersonal Psychotherapy (IPT), which emphasizes overcoming stressful experiences and the nature of interpersonal relationships, has gained popularity in recent years. Research on interpersonal psychotherapy covers topics such as major depressive disorder, bipolar disorder, eating disorders, anxiety disorders, dysthymic disorder, PTSD, alcohol addiction, and personality disorders. In experimental studies examining whether the short-term version of IPT is effective for major depression, it has proven effective both as an emergency and a long-term intervention (Brakemeier & Frase, 2012; Van Hees et al., 2013). In a separate study, it was shown that interpersonal psychotherapy had similar effectiveness compared to cognitive behavioral therapy in clients diagnosed with major depressive disorder in a community-supported psychiatric outpatient clinic, and both therapeutic approaches were effective in reducing depression symptoms (Ekeblad et al., 2016). In addition, IPT interventions have been proven to be more effective than SSRI drug treatment (Frank et al., 2011). As can be seen, IPT has been proven to be effective in short-term and long-term intervention styles in the treatment of depression, to achieve similar results with cognitive therapy interventions, and to be more effective than drug treatment. In this context, psychological resilience is believed to play a crucial role in coping with adverse events across the health, economic, and social spheres, as well as in resolving interpersonal relationship problems.

The IPT theory emphasizes the resolution of psychological disorders and conflicts arising from interpersonal relationships. IPT argues that psychological disorders arise and become permanent as a result of the individual experiencing problems in interpersonal relationships and not having interpersonal support networks (Hızlı Sayar & Omay, 2019). Instead of focusing on unconscious processes, the counselor draws attention to clients' surroundings and relationships. Unlike other therapies in interpersonal psychotherapy, the counselor strives to help clients see their major depression or other distressing symptoms as a treatable medical illness that is not the client's fault (Grote et al., 2009). Interpersonal psychotherapy focuses on recent or ongoing events rather than distant past experiences (Hızlı Sayar & Omay, 2019).

Interpersonal Psychotherapy and Resilience

Individuals with psychological resilience tend to be more resilient in the face of various life challenges, ultimately enhancing their overall quality of life. It is stated that psychological resilience enables individuals to maintain emotional, cognitive, and behavioral flexibility, thereby reducing their vulnerability to adverse life events and traumatic experiences (Bonanno, 2004; Rutter, 2012). Individuals with high levels of psychological resilience can recover quickly and continue their lives even after a significant loss or trauma (Masten, 2014). Therefore, preventive and intervention studies that increase individuals' psychological resilience are critical in protecting mental health. Examining how therapy methods can support psychological resilience is essential in this context. Many psychological counseling theories (e.g., cognitive-behavioral therapy, psychoanalytic therapy, emotionally focused therapy, solution-focused therapy, behavioral therapy, and holistic therapy) are used in the literature to detect symptoms arising from events that harm mental health in advance and to protect mental health. However, over the last thirty years, especially in clinical studies (Lipsitz & Markowitz, 2013; Markowitz & Weissman, 2004), the interpersonal psychotherapy approach has also gained prominence.

The survey conducted by Bateman (2012) has proven that IPT has a healing effect on interpersonal functioning, emotion regulation, self-confidence, identity problems, and crisis management in individuals with borderline personality disorder (Bateman, 2012; Markowitz et al., 2007). In a different study, IPT has shown promising results in reducing both depression symptoms and alcohol use in women, and significant improvements in depression symptoms and alcohol use have been observed during the treatment period (Gamble et al., 2013). It has also been proven that IPT has the potential to reduce chronic depression (dysthymia) symptoms and increase functionality (Markowitz, 2003). IPT is effective for chronic depression as well as major depression. In addition to significant and chronic depression, IPT has been proven to be effective in reducing PTSD symptoms and increasing treatment response rates (Althobaiti et al., 2020). In addition, Markowitz (2024) supports the effectiveness of IPT as a non-trauma-focused PTSD treatment and emphasizes that it should be included in PTSD treatment guidelines. Therefore, it is expected that positive effects on psychological resilience will be observed with interpersonal psychotherapy, which addresses awareness of interpersonal relationships and the strengthening of social support networks.

Study Hypotheses

- H1: Regardless of the change between the measurements, is there a significant difference between the repeated measurements of the experimental and control groups?
- H2: Regardless of which group (experimental and control) the subjects are in, is there a significant difference between the repeated measurements (as a single group)?
- H3: Do the changes observed in the repeated measurements of the subjects' psychological resilience variables differ significantly between the experimental and control groups?

METHOD

This research was designed using a pre-test-post-test control group design, one of the actual experimental model types. In this design, the first factor shows the independent treatment groups (experiment-control), and the second factor shows three repeated measurements (pre-test-post-follow-up test) related to the dependent variable (Büyüköztürk, 2008). The independent variable in the research is interpersonal psychotherapy-based group psychological counseling, and the dependent variable is participants' psychological resilience levels. IPT interventions were applied to two groups

(comparison and control) to assess generalizability and repeatability, strengthen methodological rigor (by verifying that the results are not random and show a consistent pattern), and improve the intervention. Since the study used two groups, a separate pilot study was not conducted. The sessions were conducted online due to the decision to continue education and training remotely (online) due to the negative impact of the earthquake disaster that occurred in our country and affected 11 provinces. The research model is shown in Table 1. Table 1 shows that the effectiveness of group counseling based on IPT was assessed in a study with two groups, each receiving a different intervention at different times: intervention 1 and intervention 2. In both interventions, BRS was applied to determine the pre-test scores of the experiment and control groups. Then, the experimental groups received IPT-based counseling, while no procedure was applied to the control groups. The IPT booklet was later given to the control groups for their information. Immediately after IPT-based group counseling, BRS was administered to the experimental and control groups to determine their post-test scores. Three months after the post-tests, BRS was administered again to the experiment and control groups that participated in both interventions to obtain follow-up measurements.

Summary of the IPT Group Program

This 8-session group formation program trains university students to realise the problems they experience in their interpersonal relationships, develop coping skills, and increase their psychological resilience. In the first session, group members meet, a safe environment is established, and the program's general frameworks are introduced. In the second session, the residues in their relationships are addressed, and problem areas are determined through experiential sharing. In the third session, role reversal technology is used to consider others' experiences. In the fourth recording, the time intervals of personal development and changes in interpersonal relationships are addressed and recorded. In the fifth recording, the mapping of social support systems is discussed, focusing on ways to access help. In the sixth recording, individual solutions can be used in a group environment by working on problem-solving steps. In the seventh recording, grief and loss stress are processed, and the sharing of emotional parts is supported. In the eighth and last session, the topics discussed are presented safely, and information is provided on the management and monitoring of the group process.

Study Group

An experimental study was conducted to test the effectiveness of group psychological counseling based on IPT. The participants in Intervention-1 were determined by administering a BRS pre-test to 225 students at XXX (blind for review) University. Students who scored below the average (BRS: $\bar{x} = 15.76$, $SD = 4.79$) on the scales were selected voluntarily using simple random sampling. For Intervention-1, IPT was conducted with 16 students (8 in the experimental group and 8 in the control group). The participants in Intervention 2 were selected by administering the BRS pre-test to 58 students from different universities. Students who scored below the average (BRS: $\bar{x} = 16.92$, $SD = 5.02$) on the scales were selected voluntarily using simple random sampling. For Intervention 2, IPT was conducted with 16 students (8 in the experimental group and 8 in the control group). According to the IPT procedure, before starting the group sessions, individual interviews were conducted to create the interpersonal summary (a technique that systematically evaluates the essential people in the client's life and the relationships with these people) and circles (a model used to understand the client's interpersonal behaviors and the motivations underlying these behaviors) of the experimental groups.

The day and time of the group intervention were determined based on the participants' class hours and to be online. Two groups were randomly formed. A total of 16 people participated in the intervention: 1 experimental group (8; 7 girls, 1 boy) and 1 control group (8; 5 girls, 3 boys). The

mean age of the participants was 21.87 (SD = 1.78). A total of 16 people participated in the intervention: 2 experimental groups (8; 7 girls, 1 boy) and 1 control group (8; 5 girls, 3 boys). The mean age of the participants was 22.62 (SD = 2.24). Demographic information and BRS pre-test scores of the students who participated in Intervention -1 and Intervention -2 are shown in Table 1.

Table 1: Mean and Standard Deviation Scores of the Experimental and Control Groups

Intervention	Group	Pre-test		Post-test		Follow-up test	
		Mean	SS	Mean	SS	Mean	SS
Intervention 1	Experiment	13.37	2.61	17.00	1.51	17.37	1.18
	Control	14.50	0.92	18.62	2.50	18.37	1.30
Intervention 2	Experiment	13.12	4.58	17.25	2.65	18.62	4.17
	Control	13.25	3.91	14.00	1.85	16.62	2.87

The Mann-Whitney U test was used to analyze whether there was a statistically significant difference between the experimental and control groups of students who participated in Intervention 1 and Intervention 2 and received pre-test scores from the BRS. After the analysis, it was determined that there was no significant difference in the pre-test scores between the experimental and control groups for Interventions 1 and 2 ($p > 0.05$).

Measure

Brief Resilience Scale (BRS)

It was developed by Smith et al. (2008) to assess individuals' psychological resilience. An increase in the score on the scale indicates that psychological resilience also increases. The scale is one-dimensional. The factor structure of the original scale was examined with four samples within the scope of validity, and the results for each sample revealed a single-factor structure that explained 55-67% of the variance. Cronbach's alpha values for the four samples ranged between .80 and .91. The test-retest reliability coefficient ranged between .62 and .69.

The scale adapted to Turkish by Doğan (2015) is a 5-point Likert-type scale comprising 6 items. The scale's 'I strongly disagree' option is 1 point, and the 'I agree' option is 5 points. A high score obtained from the scale indicates high psychological resilience. The scale consists of a single dimension. Items 2, 4, and 6 are scored reversely. In the validity study of the adapted scale, the Kaiser-Meyer-Olkin (KMO) value for the exploratory factor analysis was .85, and Bartlett's Test of Sphericity χ^2 value was 594.955 ($p < .001$). The scale has a single-factor structure, accounting for 54% of the total variance. The factor loadings of the scale items vary between .63 and .79. Goodness of fit indices within the scope of confirmatory factor analysis were calculated as CMIN/df = 1.83, NFI = 0.99, NNFI = 0.99, CFI = 0.99, IFI = 0.99, RFI = 0.97, GFI = 0.99, AGFI = 0.96, RMSEA = 0.05, SRMR = 0.03. In the reliability study of the adapted scale, Cronbach's alpha was 0.83. Corrected item-total correlations ranged from .49 to .66. The findings indicated that the scale is a valid and reliable measurement tool in Turkish culture.

Group Psychological Counseling Based on IPT

The research is an experimental study with a pre-test-post-test control group to examine the effect of interpersonal psychotherapy on psychological resilience. For this purpose, eight sessions of interpersonal psychotherapy, each lasting 60-70 minutes, were applied to the experimental group once a week. Detailed information on the intervention's purpose and the activities performed during the sessions is provided below. The group aims to help students become more psychologically resilient

through interpersonal psychotherapy sessions. This intervention is a standard program designed by Hızlı Sayar and Omay (2019) and Weissman and Markowitz (2002). IPT interventions have been shown to positively affect many mental health problems (Durmaz, 2015; O'Hara et al., 2000; Stuart et al., 2023).

Data Analysis

A Mann-Whitney U Test was performed to determine whether there was a statistically significant difference in the pre-test scores of the experimental and control group students from BRS before the groups started KIPT. After the experiment, a one-way repeated-measures analysis of variance (ANOVA) was used to determine whether there was a significant difference between the averages of consecutive measurements. In this context, the assumptions of the analysis of variance for repeated measures were first considered in the analysis of the study's data.

RESULTS

The intra-group change in the effectiveness of the experimental procedures (Intervention 1 and Intervention 2) on psychological resilience was tested using a one-way repeated-measures ANOVA. The one-way analysis of variance for repeated measures must have typical distributional characteristics, and the Sphericity assumption must be met (Can, 2017).

Before conducting the repeated-measures ANOVA on the resilience scores across the three measurement times (pre-test, post-test, and follow-up), Mauchly's test of sphericity was used to assess whether the assumption of sphericity was violated. This test assesses whether the variances of the differences between all possible pairs of within-subject conditions are equal. As a result of the examinations, it was found that the psychological resilience data for Interventions 1 and 2 met the assumptions of the one-way analysis of variance. The results of the sphericity test for both the experimental and control groups in Intervention 1 and Intervention 2 are summarized in Table 2.

Table 2: *Mauchly's Test of Sphericity Results for Resilience*

Intervention	Groups	Variable	Mauchly's W	p
Intervention -1	Experimental	Pretest-posttest-follow-up	.190	.007
	Control	Pretest-posttest-follow-up	.430	.079
Intervention -2	Experimental	Pretest-posttest-follow-up	.790	.493
	Control	Pretest-posttest-follow-up	.808	.528

As presented in Table 4, for Intervention 1, the sphericity assumption was violated for the experimental group ($W = .190$, $p = .007$), indicating that a correction method (such as Greenhouse-Geisser) should be applied when reporting the main ANOVA effects. However, the assumption was met for the control group ($W = .430$, $p = .079$). For Intervention 2, the assumption of sphericity was met for both the experimental group ($W = .790$, $p = .493$) and the control group ($W = .808$, $p = .528$), as all p-values were greater than .05.

To examine time-based changes within the experimental and control groups of the implemented intervention programs (pre-test, post-test, and follow-up measurements) at a more specific level, One-Way Repeated Measures ANOVA analyses were performed separately for each intervention. The within-group change analyses for the first intervention program (Intervention 1) are presented in Table 3, and the analyses for the second intervention program (Intervention 2) are presented in Table 4.

Table 3: *One-Way ANOVA Results of BRS Scores Across Measures for Intervention 1*

Group	Source of Variance	Sum of Squares	sd	Mean Squares	F	P	Significant Differences
Experiment	Inter-subjects	7.944	7	1.135	10.950	.010	Follow-up test → Pre-test
	Measurement	78.083	1.105	70.677			
	Error	49.917	7.734	6.455			
Control	Inter-subjects	5.778	7	0.825	13.488	.001	Post-test → Pre-test Follow-up test → Pre-test
	Measurement	85.583	2	42.792			
	Error	44.417	14	3.173			

When the One-Way Repeated Measures ANOVA results in Table 3 are examined, it is determined that the BRS scores of the participants in the experimental group differed statistically significantly across measurement times, $F(1.11,7.73)=10.95$, $p=.010$. According to the multiple-comparison (Post-Hoc) results, this significant difference was attributed to the follow-up test scores being higher than the pre-test scores. On the other hand, a statistically significant change in the BRS scores of the control group, which did not receive any intervention, was also observed over time, $F(2,14)=13.49$, $p=.001$. It was observed that this significant difference in the control group was due to both the post-test and follow-up test scores being higher than the pre-test scores.

Table 4: *One-Way ANOVA Results of BRS Scores Across Measures for Intervention 2*

Group	Source of Variance	Sum of Squares	sd	Mean Squares	F	P	Significant Differences
Experiment	Inter-subjects	77.778	7	11.111	10.806	.001	Follow-up test → Pre-test
	Measurement	131.083	2	65.542			
	Error	84.917	14	6.065			
Control	Inter-subjects	42.986	7	6.141	5.822	.014	No difference
	Measurement	50.250	2	25.125			
	Error	60.417	14	4.315			

When the One-Way Repeated Measures ANOVA results presented in Table 4 are examined, it is determined that the mean BRS scores of the experimental group in the second intervention program (Intervention 2) differed statistically significantly across measurement times, $F(2,14)=10.81$, $p=.001$. Multiple-comparison (Post Hoc) analyses revealed that this significant difference stemmed from the fact that the follow-up test scores of the experimental group were higher than their pre-test scores. In contrast, no statistically significant difference in the control group's mean BRS scores over time during the second intervention was found, $F(2,14)=5.82$, $p=.014$ (Post-Hoc analysis: No difference). These findings show that the second intervention program directly affects the experimental group, increasing psychological resilience and making this increase permanent, independent of the natural processes in the control group.

This finding shows that the mean psychological resilience pre-test score of the students in the IPT intervention group increased at the follow-up test, 3 months after the end of the intervention; that is, the intervention's positive effect persisted over time. On the other hand, the difference in pretest-

posttest-follow-up test measurements in the control group was not significant. The distribution of the pretest-posttest-monitoring test scores of the experimental and control groups of Intervention 1 and Intervention 2 is shown in Figure 1.

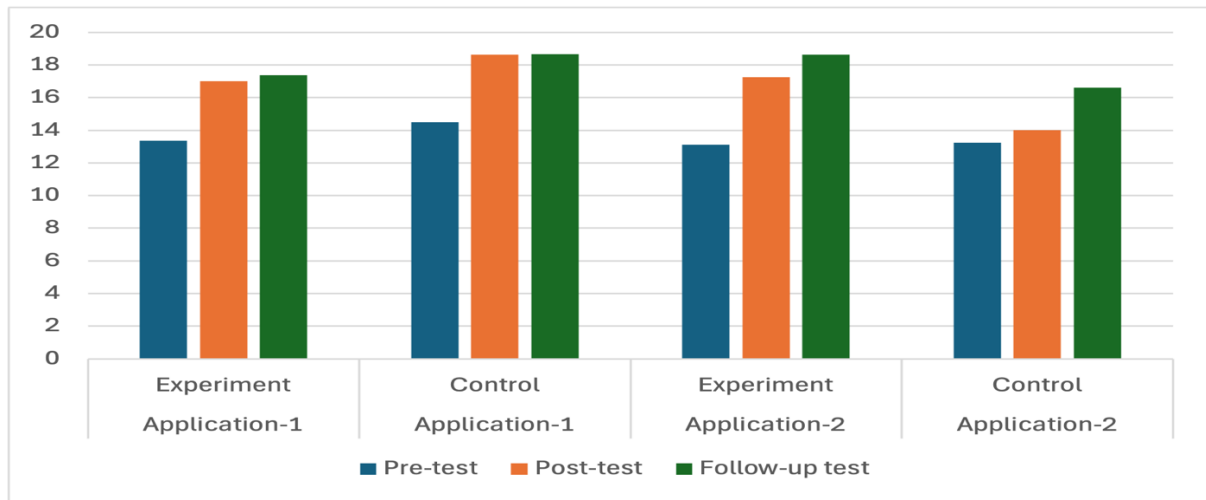


Figure 1: Change in BRS Score Averages of the Experiment and Control Groups over Time

DISCUSSION

As a result of the research, it was observed that the psychological resilience levels of university students in the Experimental Group-1, who received Group IPT, increased. When the literature was examined, it was concluded that experimental psychoeducation or psychotherapy interventions related to psychological resilience were effective in the experimental group (Akar, 2018; Koçhan, 2021; Özkan, 2021). Akar (2018) found that the psychological resilience program he developed in his doctoral thesis effectively increased high school students' psychological resilience. Koçhan (2021) found that a psychological resilience psychoeducation program increased adolescents' psychological resilience. Özkan (2021), on the other hand, concluded in his doctoral study, which included experimental, control, and placebo groups, that the psychological resilience-focused psychoeducation program increased the psychological resilience levels of adults in the experimental group compared to the control and placebo groups. Similarly, Group IPT was found to positively affect psychological resilience, suggesting it confers various benefits.

Some of the positive results that have emerged from the research include the finding that Group IPT created a positive group dynamic among participants. Group members may have shown empathy for one another and shared similar experiences. This supportive environment may have helped participants develop strong, positive relationships and increase their psychological resilience. It may also have encouraged participants to interact with one another. This interaction allowed group members to learn from one another and gain different perspectives. This process may have helped the participants increase their psychological resilience and experience personal growth. While the members received support to cope with the difficulties they faced, they may also have learned strategies to strengthen their psychological resilience.

According to the research results, the difference between the pre-test and follow-up test score averages from the psychological resilience scale for Group IPT applied to the experimental groups Intervention -1 and Intervention -2 is significant. No significant difference was found between the pre-test and post-test score averages. Similarly, no significant difference was found between the post-test and follow-up test score averages. There are some reasons why this difference did not occur. First of

all, when the definition of psychological resilience is considered, it is stated that psychological resilience is the ability to bounce back from complex life events and misfortunes (Ledezma, 2014), the capacity to cope with events as well as difficulties and to take responsibility and recover (Luthans, 2002), to reach the previous level of well-being after experiencing a negative situation (Bonanno, 2004) and the ability to maintain well-being skills even under stress (Çelik et al., 2023; Werner, 1995). In other words, the effect of the psychological counselor on the experimental group was evident three months after the post-test. The reason for this, as the definition of psychological resilience suggests, is that the individual recovers from the negative situations they have experienced and will experience over time. Their mental health improves, indicating that group counseling is beneficial. The fact that the difference between the group members' pre-test and post-test score averages is not significant may also be related to this. Therefore, the members' reactions to adverse events and their ability to overcome them change over time. In group therapy, interactions among members in social relationships and the group's healing skills can increase members' psychological resilience. A study on this subject revealed that social relationships are a protective factor for psychological resilience (Fuller-Iglesias et al., 2008). A separate study found a significant effect of increased social support on psychological resilience (Yıldırım & Tanrıverdi, 2021). Another study using a Turkish sample found that social support from family, friends, and others increases psychological resilience (Malkoç & Yalçın, 2015).

Given the significant difference between the pre-test and follow-up scores, it can be concluded that Group IPT has a long-term effect on psychological resilience. Significant differences between pre-test and follow-up tests may indicate that the effects of the therapy process persist not only in the short term but also in the long term. This may indicate that Group IPT can permanently increase participants' psychological resilience. Similarly, the effect of Group IPT on psychological resilience can be evaluated throughout the course of therapy. The differences between pre-test and follow-up tests may increase or decrease as therapy progresses. This may indicate that therapy sessions not only increase participants' psychological resilience but also how this increase develops over time. The effect of Group IPT on psychological resilience may be related to the content and continuity of the therapy process. For example, specific components or group dynamics in the therapy process may be necessary to increase participants' psychological resilience. In addition, regular and continuous implementation of therapy sessions may be a critical factor in maintaining the effect. It is also possible to assess how the effects of group IPT on resilience are related to interindividual differences. Differences between pre-test and follow-up tests may indicate how the therapy meets individual needs and characteristics, and how effects vary across individuals.

Although no intervention was applied to the control group in Intervention-1, the difference between the mean scores from the pre-test-post-test and pre-test-follow-up tests of the psychological resilience scale was significant. This situation may have been caused by variables that the researcher could not notice or control during the planning and implementation phases of the research. Because this study could not be conducted in a laboratory environment, the control group could not control the life events and new learning they experienced during the research process. For example, the significant effect of psychological resilience on the control group's ability to solve personal problems in Intervention 1, despite low pre-test scores, paved the way for low post-test scores. The increase in post-test and follow-up test scores may be due to positive developments in solving the control group's problems during the research process. In studies on this subject, it has been observed that university students with high problem-solving skills also exhibit high levels of psychological resilience (Arslan & Balkıs, 2016; Carmeli et al., 2021; Coşkun et al., 2014; Pınar et al., 2018). Therefore, the findings

of the studies may be another reason for the difference between the control group's pre-test-post-test and pre-test-follow-up score averages from the psychological resilience scale. However, when the pre-test was applied to the control group, an earthquake disaster affecting ten provinces occurred in our country. The adverse effects of earthquakes, floods, and large fires on individuals are known (Bland et al., 1996; Geng et al., 2018; Ionescu et al., 2021; Mason et al., 2010; Mavi & Tuti, 2023; Wang & Liu, 2012). One of the negative psychological states experienced by individuals after an earthquake is post-traumatic stress disorder. When the adverse effects of post-traumatic stress disorder on psychological resilience are investigated, many studies are encountered (Düşünceli & Koç, 2020; Mealer et al., 2017; Meng et al., 2018; Thompson et al., 2018; Wingo et al., 2017; Xi et al., 2020). Therefore, one reason the pre-test mean scores of the control group were lower than those of the post-test and follow-up tests may be the nationwide trauma from the earthquake. Another reason the control group's pre-test scores for psychological resilience were low is that the pre-test was administered during the exam period. It is thought that students' psychological resilience during exam stress was negatively affected.

However, the post-test was administered to the control group during the summer period. It is well known that the summer period has positive effects on individuals' mental health (Morgan et al., 2019). It is also seen that mentally healthy individuals are psychologically strong (Foster et al., 2019; Gao et al., 2017; Kaya & Demir, 2017; Ungar & Theron, 2020). In addition, when the follow-up test was administered ($X=18.37$), results were close to the post-test scores (18.62). When these results are examined, it is noted that the closeness of the control group's post-test and follow-up test scores reflects the members' absolute psychological resilience levels, unaffected by any positive or negative factors. It is thought that factors beyond the group leader's control (exam period, earthquake, summer period) led to the psychological resilience scores of the control group increasing, even without group psychological counseling.

One of the most significant limitations of this study is the relatively small sample size ($n=8$ per group, $N=16$ total) in both intervention applications. Small sample sizes can limit the power of statistical analyses and increase the probability of Type II error (Cohen, 2013). Indeed, this is reflected in the fact that although the overall ANOVA test was significant in the control group of the second intervention program, no specific differences between time points were detected in the pairwise comparisons (Post-Hoc). In addition, limiting the sample to a narrow group of university students restricts the generalizability of the positive effects of KPT-based group counseling on psychological resilience to broader populations. Therefore, future studies testing the effectiveness of the intervention program with larger sample sizes and participants with diverse sociodemographic characteristics will both increase statistical power and enhance the generalizability of the findings.

Author Contributions: H.B.: Conceptualization, Methodology, Software, Investigation, Formal analysis, and Writing – original draft, Validation, Resources, Data curation, E.Ç.: Writing – review & editing, and Supervision. Both authors have read and agreed to the published version of the manuscript.

Funding: The authors have not received any financial support for the research, authorship, and/or publication of this article.

Conflict of Interest: There is no conflict of interest for any of the authors in this article.

Data Availability: Data is available upon request.

Ethical Approval and Participation Permission: Ethical permission for this research was obtained from the Sakarya University Committee on Educational Research and Publication Ethics with

decision number 04 at its meeting dated 15.03.2023 and numbered 17. Informed voluntary consent was obtained from all participants in the research.

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