

Effect of Hope-Focused Intervention Based on the Creative Art Approach on the University Students' Levels of Hope

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Abstract

The aim of this study was to examine the effect of hope-focused intervention based on the creative art approach on the level of hope of university students. The exploratory sequential design, among mixed patterns, was used in this study. In this experimental study, the random assignment Solomon 4-group design was used. The participants (n = 60) consisted of university students enrolled in an educational program at a public university in western Turkey. The Dispositional Hope Scale, Interview Forms, and Personal Information Forms were used as data collection tools. The hope-focused intervention based on the creative art approach was conducted with experimental groups for 6 weeks, once a week for 90 min. In order to determine the effect of the intervention, the quantitative data obtained were analyzed by two-way ANOVA and the t-test. Qualitative data were obtained by semi-structured interviews and analyzed via content analysis. The results of the analyses showed that hope-focused intervention based on the creative art approach had a significant positive effect on the participants' hope levels, regardless of the pre-test and post-test sensitivity.

Keywords: Creative, Art, Hope, Intervention, University Students

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INTRODUCTION

Nowadays, the path from a dependent child to an independent adult that individuals follow is so long and complicated when compared to any time in history (Arnett 2014). This change in course of life has brought a new development period. Arnett (2000) defined the period of human life covering the ages of 18 and 25 as “emerging adulthood” in industrialized societies. Individuals living through this period experience simultaneous changes in many dimensions of their lives (Schulenberg, Bryant, & O'Malley, 2004). Young people at this stage of life face many stressors, such as leaving their home for education or careers, and adapting to new situations. The transition from adolescence to adulthood can be a difficult developmental task for many young people, because the developmental stages of human life present some special difficulties and demands for inducing successful functioning and well-being (Steca et al., 2009). The emerging adulthood period is also considered to provide many opportunities for developing identities on love, career, and worldviews (Arnett 2000). During this period, individuals begin to develop qualities, skills and self-efficacy that will be used for initiating mature and stable relationships, and assuming more adult roles and responsibilities (Wood et al., 2018, p.123-143). One of the most important predictors of beliefs of self-efficacy is hope (Feldman & Kubota, 2015). Hope plays a very important role in the lives of individuals experiencing emerging adulthood, which is full of opportunities (Dwivedi & Rastogi, 2017). Hope also helps young people to make regular assessments of their current and future selves and set goals (Wood et al., 2018).

Many definitions have been made about the concept of hope in the literature. A group of scientists defined hope as the perception that one's goals can be achieved (Melges & Bowlby, 1969; Frank, 1975). On the other hand, Snyder's (1995) theory of hope is the most accepted theory in the field to date. According to the theory of hope, hope signifies the perceptions of individuals regarding their capacities. This theory consists of three components, which are: clearly conceptualizing goals, developing specific strategies to achieve these goals (thinking about ways to accomplish this), and gaining and maintaining motivation to use these strategies (Snyder et al. 1991; Snyder 2000, Snyder 2002). The theory of hope involves the beliefs of a person that they know how to achieve their goals and them having the motivation to utilize these ways they believe in to achieve these goals (Snyder et al. 2005, p.257–276). In other words, hope encompasses both the will to pursue certain goals, and the way or ways to achieve these goals effectively. In addition to having belief that they can succeed, the individual has beliefs that they have the means to act upon these beliefs successfully (Snyder, 1995). The results of the research conducted on the subject of hope indicated that individuals with a high level of hope have a high level of life satisfaction (Bailey et al., 2007; Cole, 2008; Hutz et al., 2014; Dwivedi and Rastogi, 2017), well-being (Tsukasa and Snyder, 2005), self-efficacy (Snyder, 2002), motivation (Snyder et al., 1998), quality of life (Miller, 2007), and self-esteem (Cotter et al., 2018; Mashiach-Eizenberg, et al., 2013), and that they have a lower level of depression (Schrank et al., 2014) and psychiatric symptoms (Waynor et al., 2012). At the same time, a high level of hope leads to a decrease in stress responses and leads to more effective emotional recovery of individuals (Ong et al., 2006). Taking all of these research results into consideration, it is thought that it is important and necessary to carry out hope-focused interventions.

As a result of the moderation analysis of Speridakos and Weis's (2011) meta-analysis of research on hope-focused interventions, it was shown that hope intervention programs aimed at students or employed adults have a higher degree of effect when compared to intervention programs employed by hospitals and clinics, and for other at-risk populations. In this meta-analysis study, it was reported that hope-focused interventions for students may be effective in increasing hope. In addition to hope-focused interventions conducted with individuals in emerging adulthood period being effective in raising the level of hope of students (Feldman & Dreher, 2011), it was seen that these interventions are also effective in pain tolerance (Berg & Dig., 2008), and improving academic compliance, academic achievement, and self-efficacy levels (Davidson & Dig., 2012; Tian et al., 2018). The intervention techniques used in these studies consisted of creating goals, talking about strategies and motivations used to achieve these goals, listing to these goals, creating a working paper that reflects positive self-talk, mapping goals, imagination, and muscle relaxation, psychoeducation on components of hope, telling one's personal story (Berg et al., 2008; Davidson et al., 2012; Feldman &

Dreher, 2011; Tian et al., 2018). In addition, the common point of these studies was that they were conducted in the form of short-term and group studies. On the other hand, it was seen that creative art practices, which are among approaches that are effective in increasing hope (Bishop & Willis, 2014; Fairchild & McFerran, 2019; Larsen et al., 2018), were included in these group studies.

According to the American Art Therapy Association (2022), the creative art approach integrated with psychological counseling helps to increase the psychosocial well-being of clients. It was also determined that psychological counseling practices based on the creative art approach leads to various positive psychological changes in individuals, such as hope, flow, positive emotions, etc. (Forgeard & Eichner, 2014, p. 137–154; Wilkinson & Chilton, 2013). Creative and expressive art, integrated with psychological counseling, encourages the client to ascend speech-based counseling and deepen counselling further (Bishop & Willis, 2014; Fairchild & McFerran, 2019). In the research conducted by Bishop and Willis (2014), it was aimed to help young individuals to gain insight about what they hope for in the future and the role of hope in their lives using poems, which are used in the techniques used in creative and expressive art. As a result of the research, young people expressed that hope was important for them and that reading poetry themselves out loud was an effective technique. In addition, it was observed that the participants' use of metaphors, such as the smell, taste, and emotion that hope evokes in them, makes hope turn into a more tangible concept (Bishop & Willis, 2014). Larsen et al. (2018) determined that it is also important to focus on the positive aspects of people's lives instead of focusing on the negative aspects, and that it would be more beneficial to use hope-focused work together with interventions based on art.

The aim of this study was to examine the effect of hope-focused intervention based on the creative art approach on the level of hope of university students. The hypotheses of this study created for this purpose are presented below:

1. When the pre-test effect is examined, it will be seen that the difference between the Dispositional Hope Scale (DHS) total post-test score averages of the university students in experimental groups 1 and 2 and the DHS total post-test score averages of the university students in control groups 1 and 2, who participated in the hope-focused intervention based on the creative art approach, will be statistically significant. This difference will be in favor of experimental groups 1 and 2.
2. When the pre-test effect is examined, it will be seen that the difference between the Actuating Thinking Scale (ATS) total post-test score averages of the university students in experimental groups 1 and 2 and ATS total post-test score averages of the university students in control groups 1 and 2, who participated in the hope-focused intervention based on the creative art approach, will be statistically significant. This difference will be in favor of experimental groups 1 and 2.
3. When the pre-test effect is examined, it will be seen that the difference between the Alternative Ways Thinking Scale (AWTS) total post-test score averages of the university students in experimental groups 1 and 2 and the AWTS total post-test score averages of the university students in control groups 1 and 2, who participated in the hope-focused intervention based on the creative art approach, will be statistically significant. This difference will be in favor of experimental groups 1 and 2.

METHOD

Research Model

The research was modeled with an exploratory sequential design that is among the mixed methods, in which the qualitative and quantitative methods are used together. Since the problem of the study was more oriented towards quantitative values, quantitative data were collected and analyzed in the first stage of the study. Then, in order to support the data obtained, to obtain specific results and a

deeper explanation, the qualitative data were collected and analyzed in the second stage of the study (Creswell & Plano Clark, 2017, p. 77). The findings obtained from quantitative and qualitative data were interpreted through correlation.

The Solomon 4-group design, among the true experimental models, was selected for the evaluation of the effectiveness of the hope-focused intervention based on the creative art approach developed for university students that was included in the quantitative dimension of this study (Table 1).

Table 1. Solomon 4-Group Design.

Groups	Pre-test	Process	Post-test
Experimental 1	DHS	Hope-focused intervention based on creative art approach	DHS
Control 1	DHS	X	DHS
Experimental 2	X	Hope-focused intervention based on creative art approach	DHS
Control 2	X	X	DHS

The reason why the Solomon 4-group design was selected was the possibility to define the pre-test interaction. Defining the pre-test interaction allows for controlling the effect of the pre-test application on the participants. Therefore, it is a technique with high internal validity (Heppner et al., 2007, p.155-157). The independent variable of the research was hope-focused intervention based on the creative art approach. The dependent variables of the research were the levels of dispositional hope, pathways thinking, and agency thinking. The Solomon 4-group design used to evaluate the effectiveness of the intervention is presented in Table 1, where it can be seen that there were 2 experimental groups and 2 control groups in the study. The DHS was applied to experimental group 1 and control group 1 before the intervention. No measurement tools were applied to experimental group 2 and control group 2 prior to the intervention. Then, hope-focused intervention based on the creative approach was applied to the experimental groups. After the intervention, the DHS was applied to all of the groups.

For the qualitative dimension of the research, a case study was conducted. Case studies conducted to determine the results related to a specific purpose are studies conducted on cases such as individuals, institutions, groups, or environments, which can be used in tandem with quantitative or qualitative methods (Yıldırım & Şimşek, 2011, p.77). Qualitative data were collected as part of the research in order to support the quantitative data obtained with the experimental design, and to provide more in-depth information and holistically evaluate the perceptions formed throughout the study. For this purpose, semi-structured interviews were conducted with 9 participants in the experimental groups who voluntarily agreed to be interviewed. The data obtained were then analyzed via content analysis.

Participants

The participants of this study consisted of university students who were attending Dokuz Eylül University, Buca Faculty of Education in the 2021–2022 academic year. The study was conducted with a total of 60 students, 15 (3 males, 12 females) in experimental group 1 ($\bar{x} = 21.2$, $SD = 1.2$), 15 (4 males, 11 females) in control group 1 ($\bar{x} = 20.9$, $SD = 1.09$), 15 (4 males, 11 females) in experimental group 2 ($\bar{x} = 20.4$, $SD = 1.18$), and 15 (4 males, 11 females) in control group 2 ($\bar{x} = 20.6$, $SD = 1.05$).

Data Collection Tools:

Personal Information Form

This form was developed by the researcher for the purpose of obtaining information about the age and gender of the participants and the purpose of their participation in the study.

Dispositional Hope Scale

The DHS, developed by Snyder et al. in 1991 to measure the dispositional hope levels of individuals over the age of 15, consists of 12 items. There are 2 sub-dimensions of the scale, namely actuating thinking and alternative ways thinking. The scale consists of 4 items for both sub-dimensions with statements that aim to measure these sub-dimensions, as well as 4 filler items. The score range of the 8-point Likert-type scale ranges from a maximum score of 64 points to a minimum score of 8 points. The internal reliability coefficient of the scale was determined to be between 0.71 to 0.76 for the actuating thinking sub-dimension, between 0.63 to 0.80 for the alternative ways thinking sub-dimension and between 0.74 to 0.84 for the entirety of the scale. In the reliability study conducted using the test-retest method, the reliability coefficients were determined to be 0.85 for an interval of 3 weeks, 0.73 for an interval of 8 weeks, and 0.76 for an interval of 10 weeks. In the exploratory factor analysis, it was seen that 61% of the total variance was explained and the items were collected in two factors. As a result of confirmatory factor analysis, fit index values were found as GFI = .96, AGFI = .92, RMR = .08, NNFI = .94, RFI = .90, CFI = .96 and RMSEA = .077. The psychometric properties of the Turkish adaptation of the scale, adapted by Bacanlı and Tarhan (2015), were deemed acceptable and it was concluded that the scale was a usable tool for measuring the level of people's hope.

Semi-Structured Interview Form

The semi-structured interview form was prepared by the researcher. The opinions of 3 field experts were taken related to the prepared form. The final form of the document was prepared in accordance with the opinions of 3 experts. The questions included in the form are as follows:

- 1) Has the hope-focused intervention based on the creative art approach been effective in increasing your hope? If so, how?
- 2) What are the factors that affect you when you evaluate the whole process? Can you elaborate?"

Process

Prior to the initiation of this study, ethical permission was obtained from the Dokuz Eylül University Ethics Committee (Protocol number: 10042736-659; Approval date: 01/03/2020, Decision number: 17) to conduct the study. Later, it was announced that a hope-focused intervention study based on the creative art approach would be conducted across the faculty by Dokuz Eylül University, Buca Faculty of Education, Guidance and Psychological Counseling Department and Fine Arts Education Department, during the 2021–2022 academic year. Then, applications from students who wanted to participate in this study were taken for a 1-week period. After this period, there were 65 applicants in total.

Applicants for the study were contacted for a preliminary interview. A total of 60 individuals attended the preliminary meetings. In the preliminary interviews, personal information forms were obtained. In addition, information about whether the participants had any previous psychological diagnoses, had undergone psychological treatment, and their reason for application were obtained. It was determined that none of the applicants had a psychological diagnosis and none had received psychological treatment. Then, information about the purpose, scope, and duration of the study, group rules, and the method to be applied were given to the applicants and their written consent was obtained. Finally, the applicants who attended the preliminary interviews were randomly assigned to the experimental and control groups via a draw, while making sure that there was an equal number of male and female members in both the experimental and control groups.

Before the beginning of the experimental process, the DHS was applied to the students in experimental group 1 and control group 1 as a pre-test. Then, a total of 6 group sessions were held with the experimental groups, 1 day a week, for 90 min of hope-focused intervention based on the

creative art approach. In the meantime, no work was conducted with the control groups. After the completion of these sessions with the experimental groups, the DHS was applied to all of the groups as a post-test.

All of the group sessions were conducted by the lead author who completed their psychodrama training at the Abdülkadir Özbek Psychodrama Institute and is an expert psychodramatist, who participated in art therapy workshops. Additionally, the configuration and execution of all of the sessions were supervised. It was thought that the participants would not expect favoritism or extra scores from the researcher, since the researcher did not teach any of the courses that the participants attended and thus, this would not affect the experimental process results or the internal validity of the experimental study. Additionally, it was thought that factors such as a new physical environment would not affect the outcome of the experimental process due to the fact that the experimental process was executed in the school environment that the students were studying in.

A semi-structured interview was conducted as part of the qualitative data collection process 1 week after the group sessions were completed. These interviews were conducted with 21 participants who were in the experimental groups and volunteered to participate in the interviews.

Validity and Reliability of the Study

In order to increase the reliability of the study, these semi-structured interviews were conducted by other researchers who were involved in the study, but did not take part in the intervention study. Some necessary measures were taken regarding the validity and reliability of the data obtained from the semi-structured interviews of the study. The first internal validity measure was preparing interview questions after the related literature was searched through (Bishop & Willis, 2014; Fairchild & McFerran, 2019). Another internal validity measure was receiving expert opinion on the prepared questions. Providing a detailed description of the data obtained from the interviews and including direct quotations in the study were taken as external validity measures. In addition, it was observed that the research results were compatible with theories and concepts contained in the relevant literature.

The conduct of this study by four studies, the collection and analysis of data are evaluated within the scope of the reliability of the research. In the analysis process, the answers of the participants were first read by four researchers, common points were found in the answers and separate codes were created. Finally, certain themes and sub-themes were created based on the codes determined by all three researchers, and the data were interpreted. The answers given by the students to the interview questions were presented through direct quotations. In direct quotations, information about the students is given by abbreviated as “K” to show the participant number.

Application of Hope-Focused Intervention Through Creative Art

The aim of this study was to examine the effect of hope-focused intervention through creative art on the level of hope of university students. For this purpose, a total of 6 sessions of 90 min were conducted for 2 experimental groups, once a week. The same intervention was applied to both experimental groups. Both active and passive exercises of creative art practices were included in each session.

In the first session: Group members were met with and information was given about the group rules, and the process and purpose of the intervention program. Afterwards, a consent form stating that they voluntarily participated in the study and that the ethical rules were written was filled in and then the session was finalized.

In the second session: In this session, 10 pictures with the theme of hope, selected by the expert, who holds the title of associate professor in the field of art history and one of the researchers of this study, were shown to the participants in two minutes. These pictures are respectively; Jean-

Auguste-Dominique Ingres (1842) - Faith, John William Waterhouse (1896) - Pandora, John Everett Millais (1856) - The Blind Girl, Lawrence Alma Tadema (1909) - Hopeful, Thomas Cole (1842) - The Journey of Life: Youth, Caspar David Friedrich (1818) - The Woman Before the Rising Sun, Henri Fantin Latour (1888) - Roses and Lilies, Claude Monet (1873) - A Field of Poppy, Pierre Auguste Renoir (1881) - Lunch on the Cruise, Henri Matisse (1910) - Dance. Then, they were asked to share the words with the group and the projections of these in the participants' own lives and their life goals were shared. Next, the group members were asked to choose the pictures that evoked the most hope among these pictures. Afterwards, the feelings associated with the picture they chose were shared. Then, they were asked to write a quatrain consisting of the words they wrote about the pictures by dividing into small groups of 3 people. The quatrains they wrote were shared with the experimental group, giving feedback about the verses, and then the session was finalized.

In the third session: Music pieces that evoke hope were requested from two faculty members from Dokuz Eylül University, Buca Education Faculty, Department of Music Education. The selected 5 pieces of music (Eleni Karaindrou (1988) - By the sea, Al Di Meola (1977) - Mediterranean Sundance, Jetro Tall (1969) - Bouree, The Dave Brubeck Quartet (1959) - Take Five) were played to the participants for two and a half minute. The selected music tracks were chosen with attention to them not having lyrics and being largely unknown. The participants were asked which musical work or works influenced them the most among the musical works they listened to, considering their life goals, ways to achieve these goals, and sources of motivation, and they were asked to write words about the music they chose. They were then asked to read the words to the experimental group. Then, participants were divided into 5 small groups of 3 and asked to write stories containing the words they wrote. The stories they wrote were shared with the experimental group, feedback was given about the verses, and then the session was finalized.

In the fourth session: The Participants were asked to move freely in the area where the group gathered and to think about the movie and movie character that impressed them the most. Afterwards, they were asked to share the movies and movie characters they chose with the group. Then, they were divided into groups and asked to play the role of the character they chose and act like them. Then, these roles were asked to communicate with each other and to act by thinking about how the movie character would act, what they would say to them in order to reach their current goals in life, and how they would act in the face of obstacles that would arise in reaching these goals. Afterwards, they were asked to identify the common themes occurring within the group and to create body sculptures related to these themes. Finally, the session was ended after receiving feedback about what the sculptures mean to them and their common thoughts.

In the fifth session: The group members were asked to paint a picture of hope, taking into account their purpose in life, ways to achieve those goals, and sources of motivation. They were instructed that the important thing in their painting was to reflect themselves and they were not professional artists, and they should paint as they feel. This study took approximately 35 minutes. After painting, each group member was asked to share with the group what the pictures meant, paying attention to their choice of colors and symbols, and what these colors and symbols meant to them. Afterwards, they were allowed to take pictures of the pictures they had made and to take their pictures with them. The session was ended after the common thoughts and feedback of the participants were received.

In the sixth session: The participants were asked to evaluate the whole group process. Good wishes were made after the group members' evaluations and feedback. Afterwards, the group process was finalized by the post-test application.

Data Analysis

Herein, the pre-test and final test scores of the totality of the DHS, and its sub-dimensions, the ATS and AWTS, were distributed normally, and the group variances were similar. With these results, it was decided that parametric tests could be applied in the study. The 2-way ANOVA technique was

used to examine the interaction of the final test score averages of the groups, which is the first analysis step of the Solomon experimental design. Then, whether the differences between the final test score averages of the pre-tested experimental group 1 and control group 1, and the non-pre-tested experimental group 2 and control group 2 were significant or not was examined via t-test. The data were analyzed using IBM SPSS Statistics for Windows 23.0 (IBM Corp., Armonk, NY, USA) and statistical significance was accepted as $p < 0.05$.

The second stage of the research was the process of collecting the qualitative data. Two open-ended questions were asked to the group members in a semi-structured interview 1 week after the end of the experimental procedure conducted with the experimental group. The interviews lasted an average of 15 min. Each of the questions was prepared to be main themes. In the analysis process, first, the data recorded on the voice recorder were deciphered. Then, the codes were determined by finding the common points across the answers given to the questions by the participants. Finally, based on the common codes determined by the researcher, the main themes were established and the data were interpreted. The real names of the participants were not used in the analysis or presentation of the data. The answers of the participants to the interview questions were given in the form of direct quotations. Information on the direct quotations was encoded with the letter “K” to indicate the names and numbers of the participants.

FINDINGS

Quantitative Findings

The descriptive statistics of the experimental and control groups and the normality test are presented in Table 2.

Table 2. DHS, ATS, and AWTS Mean Scores of the Experimental and Control Groups, Standard Deviation Values, and Normality Test.

	n	Kolmogorov -Smirnov test			Shapiro-Wilk test				
		M	SD	Statistic	df	p	Statistic	df	p
Experimental 1 DHS Pre-test	15	38.8	6.2	0.112	15	0.20	0.97	15	0.90
Control 1 DHS Pre-test	15	37.6	5.2	0.187	15	0.16	0.88	15	0.06
Experimental 1 DHS Post-test	15	53.2	5.3	0.16	15	0.20	0.92	15	0.22
Control 1 DHS Post-test	15	37.4	4.7	0.12	15	0.20	0.96	15	0.80
Experimental 2 DHS Post-test	15	53.3	4.6	0.17	15	0.20	0.94	15	0.46
Control 2 DHS Post-test	15	37.8	4.7	0.14	15	0.20	0.91	15	0.11
Experimental 1 ATS Pre-test	15	19.4	3.4	0.12	15	0.20	0.95	15	0.61
Control 1 ATS Pre-test	15	19.4	3.4	0.13	15	0.20	0.958	15	0.64
Experimental 1 ATS Post-test	15	27.1	2.6	0.13	15	0.20	0.95	15	0.61
Control 1 ATS Post-test	15	19.7	2.8	0.12	15	0.20	0.95	15	0.52
Experimental 2 ATS Post-test	15	26.7	3.1	0.14	15	0.20	0.94	15	0.44
Control 2 ATS Post-test	15	20.2	3.1	0.22	15	0.07	0.94	15	0.48
Experimental 1 AWTS Pre-test	15	19.4	3.2	0.16	15	0.20	0.95	15	0.58
Control 1 AWTS Pre-test	15	18.2	2.7	0.13	15	0.20	0.95	15	0.63
Experimental 1 AWTS Post-test	15	26.1	3.4	0.20	15	0.10	0.89	15	0.07
Control 1 AWTS Post-test	15	17.7	2.5	0.15	15	0.20	0.89	15	0.09
Experimental 2 AWTS Post-test	15	25.4	2.6	0.16	15	0.20	0.92	15	0.22
Control 2 AWTS Post-test	15	17.6	2.8	0.21	15	0.06	0.92	15	0.21

As can be seen in Table 2, the DHS pre-test average was 38.8 (SD = 6.2), the DHS post-test average was 53.2 (SD = 5.3), the ATS pre-test average was 19.4 (SD = 3.4), the ATS post-test average was 27.6 (SD = 2.6), the AWTS pre-test average was 19.4 (SD = 3.2), and the AWTS post-test average was 26.1 (SD = 3.4) for experimental group 1. The DHS pre-test average was 37.6 (SD = 5.2), the DHS post-test average 37.4 (SD = 4.7), the ATS pre-test average was 19.4 (SD = 3.4), the ATS post-test average was 19.7 (SD = 2.8), the AWTS pre-test average was 18.2 (SD = 2.7), and the AWTS post-test average was 17.7 (SD = 2.5) for control group 1. The DHS post-test average was 53.3 (SD = 4.6), the ATS post-test average was 26.7 (SD = 3.1), and the AWTS post-test average was 25.4

(SD = 2.6) for experimental group 2. The DHS post-test average was 37.8 (SD = 4.7), the ATS post-test average was 20.2 (SD = 3.1), and the AWTS post-test average was 17.6 (SD = 2.8) for control group 2.

The data obtained in this study were examined using the Kolmogorov-Smirnov and Shapiro-Wilk tests to determine whether the data met the prerequisite of normality in order to be able to perform 2-way ANOVA for the post-test comparison of the groups, which is the first step of the Solomon model. As shown in Table 2, the DHS pre-test scores ($p > 0.05$), ATS pre-test scores ($p > 0.05$), AWTS pre-test scores ($p > 0.05$), DHS post-test total scores ($p > 0.05$), ATS post-test scores ($p > 0.05$) and AWTS post-test scores ($p > 0.05$) of the experimental and control groups were determined to be distributed normally.

The homogeneity of the variances of the pre-test and post-test scores of the groups, which is the second prerequisite of 2-way ANOVA, were examined via the Levene test. The values obtained as a result of the DHS pre-test ($F = 0.9, p > 0.05$), DHS post-test ($F = 0.4, p > 0.05$), ATS pre-test ($F = 0.0, p > 0.05$), ATS post-test ($F = 0.2, p > 0.05$), AWTS pre-test ($F = 0.1, p > 0.05$) and AWTS post-test ($F = 1.9, p > 0.05$) showed that the variances were homogeneous. Given that the necessary prerequisites were met, 2-way ANOVA was conducted between groups to determine whether the expressionist hope-focused intervention had any effect on the DHS total scores and scores of its subscales, ATS, and AWTS. The findings obtained are presented in Table 3.

Table 3. Results of the 2-way Intergroup ANOVA on the Total Score of Dispositional Hope.

Scale	Source of Variance	Sum of Squares	df	Mean of Squares	F	p	η^2
DHS	Process	2066.309	3	688.770	34.689	0.00	0.658
	Pre-test	248.289	1	248.289	12.505	0.01	0.188
	Process × Pre-test	0.293	1	0.293	0.15	0.904	0.00
	Error	1072.214	54	21.526			
	Total	12886.00	60	19.856			
ATS	Process	336.070	3	112.023	13.523	0.00	0.429
	Pre-test	14.528	1	14.528	1.754	0.00	0.031
	Process × Pre-test	23.352	1	23.352	0.931	0.99	0.04
	Error	447.320	54	8.284			
	Total	34156.00	60				
AWTS	Process	594.933	3	198.311	34.099	0.00	0.655
	Pre-test	152.197	1	152.197	26.170	0.00	0.326
	Process × Pre-test	0.854	1	0.854	0.147	0.703	0.003
	Error	314.047	54	5.816			
	Total	29788.00	60				

As suggested by Braver and Braver (1988), it is necessary to examine the main effect of pre-test and the interaction of the pre-test and the process first. Accordingly, as can be seen from Table 3, the interaction between the pre-test and process also did not differ significantly in the DHS score averages ($F_{(1,54)} = 0.15; p = 0.904$). The interaction between the pre-test and process also did not differ significantly in the ATS score averages ($F_{(1,54)} = 0.931; p = 0.99$). The interaction between pre-test and process did not differ significantly in the AWTS score averages ($F_{(1,54)} = 0.147; p = 0.703$). According to these results, it was seen that there was no pre-test sensitivity of the DHS, ATS, or AWTS.

On the other hand, it was seen that the main effect of the process did show a significant difference in the DHS ($F_{(3,54)} = 34.689; p = 0.00$), ATS ($F_{(3,54)} = 13.523; p = 0.00$), and AWTS ($F_{(3,54)} = 34.099; p = 0.003$) mean scores. The mean scores of the participants in the experimental groups were higher than the mean scores of the subjects in the control groups.

For the second step of the analysis in the Solomon 4-group design, the independent group t-test was applied to experimental group 1 and control group 1, which were pre-tested, and experimental group 2 and control group 2, which were not pre-tested. Then, the independent group t-test was applied to experimental group 1, which was pre-tested, and experimental group 2, which was not pre-

tested, and to control group 1, which was pre-tested, and control group 2, which was not pre-tested. The findings obtained are presented in Table 4.

Table 4. T-Test Results for the Independent Measurements of the Post-Test Scores of the Experimental and Control Groups.

Scale	Group	n	t	df	p	Mean Difference
DHS Post-Test	Experimental 1- Control 1	30	8.53	28	0.00	15.8
	Experimental 2-Control 2	30	9.10	28	0.00	15.3
	Experimental 1-Experiment 2	30	-0.73	28	0.95	0.13
	Control 1-Control 2	30	-0.231	28	0.81	-0.40
ATS Post-Test	Experimental 1- Control 1	30	7.33	28	0.00	7.33
	Experimental 2-Control 2	30	5.70	28	0.00	6.53
	Experimental 1- Experimental 2	30	0.31	28	0.75	0.33
	Control 1-Control 2	30	-0.42	28	0.67	-0.46
AWTS Post-Test	Experimental 1- Control 1	30	7.59	28	0.00	8.44
	Experimental 2-Control 2	30	7.71	28	0.00	7.33
	Experimental 1-Experimental 2	30	0.65	28	0.51	0.71
	Control 1-Control 2	30	0.64	28	0.94	0.66

As can be seen in Table 4, the total post-test scores of experimental group 1 and control group 1, in which the DHS pre-test was applied, showed a significant difference ($t_{(28)} = 8.533$, $p = 0.00$). At the same time, the total post-test scores of experimental group 2 and control group 2, which were not pre-tested, also showed a significant difference ($t_{(28)} = 9.101$, $p = 0.00$). However, the total DHS post-test scores of experimental group 1, which was pre-tested, and experimental group 2, which was not pre-tested ($t_{(28)} = -0.73$, $p = 0.952$), and the total DHS post-test scores of control group 1, which was pre-tested, and control group 2, which was not pre-tested ($t_{(28)} = -0.231$, $p = -0.819$), did not show any significant difference. The ATS post-test scores of experimental group 1 and control group 1, in which the DHS pre-test was applied, showed a significant difference ($t_{(28)} = 7.33$, $p = 0.00$). The ATS post-test scores of experimental group 2 and control group 2, which were not pre-tested, also showed a significant difference ($t_{(28)} = 5.706$, $p = 0.00$). However, the ATS post-test scores of experimental group 1, which was pre-tested, and experimental group 2, which was not pre-tested ($t_{(28)} = -0.315$, $p = 0.755$), and the ATS post-test scores of control group 1, which was pre-tested, and control group 2, which was not pre-tested ($t_{(28)} = -0.428$, $p = 0.672$), did not show any significant difference. The AWTS post-test scores of experimental group 1 and control group 1, in which the DHS pre-test was applied, showed a significant difference ($t_{(28)} = 7.591$, $p = 0.00$). The AWTS post-test scores of experimental group 2 and control group 2, which were not pre-tested, also showed a significant difference ($t_{(28)} = 7.716$, $p = 0.00$). However, the AWTS post-test scores of experimental group 1, which was pre-tested, and experimental group 2, which was not pre-tested ($t_{(28)} = -0.657$, $p = 0.516$), and the AWTS post-test scores of control group 1, which was pre-tested, and control group 2, which was not pre-tested ($t_{(28)} = -0.647$, $p = 0.947$), did not show any significant difference. These findings indicated that the hope-focused intervention based on the creative art approach was effective.

Qualitative Findings

The first question in the interview form is “Has the hope-focused intervention based on creative art approach been effective in increasing your hope? If so, how?” It was determined that the work was effective in increasing the hopes of the participants under 2 main themes: career and personal development. The code under the career theme was determined to be a clarification of goals ($f = 20$). The codes under the personal development theme were determined to be self-efficacy ($f = 9$), perseverance ($f = 8$), awareness ($f = 6$), and gratitude ($f = 4$). The opinions of some of the participants on this topic are presented below.

K1: “The work was instrumental in creating my academic career plans. Before this work, I didn't have a clear idea of what I wanted. I wanted to pursue an academic career, but my faith about whether it would happen was decreasing from time to time. With this work, I realized that what I

really wanted was an academic career. I also realized that I needed to work more systematically and planned. My self-confidence has increased. The work helped me to better understand that I should not be defeated by setbacks, that everyone can face difficulties in life”.

The code under the career theme was determined to be the clarification of goals. This result of the research supported Snyder's (1994) theory of hope. According to Davidson et al. (2012), hope is a form of cognition oriented towards goals.

K4: *“I attended this work so that I could go somewhere on my own. Before this work, I couldn't go anywhere alone. The work helped me form beliefs that I could do what I set out to do. It also showed me that I was not as weak as I thought I was, but strong. Now I can go anywhere on my own without the need for others”.*

Another code under the theme of personal development is perseverance. Perseverance is recognized as one of the character strengths (Peterson, & Seligman, 2004, p.229-249). Hope and perseverance are connected with each other and support each other (Hugman, & Pawar, 2021).

K7: *“The pandemic period had distracted me from school. I had no idea about what to do or how to improve myself. Since this work was an out-of-class activity, it helped me to attend school with more pleasure, to understand what I wanted and to choose my field. In addition, it helped me form the belief that I can develop more by working tirelessly and knowing the value of what I have, regardless of the conditions of the country I live in or my own condition”.*

Another code under the theme of personal development is awareness. The results of the study conducted by Larsen et al. (2015) showed that during sessions of hope-focused group work, the participants reported moments of a change in perspective or experiencing newfound awareness of their strengths, and that these moments were generally enlightening and had a positive, hopeful effect on thoughts of their personal resources or the difficulties they faced.

K3: *“With this work, I realized that what I really wanted was a more peaceful, serene, and calm life. I realized that I put the daily hassle of life and the needs of others before my own needs and that I needed to do more for myself, that the biggest obstacle on the way to doing what I wanted was me, and that I should work on myself”.*

Another code under the theme of personal development of the research is gratitude. There is a positive relationship between hope and gratitude (Feng, & Yin, 2021; Kardaş et al., 2019, Witvliet et al., 2019). Gratitude is a positive assessment of what is already present in the lives of individuals, and hope is a positive expectation of future results (Scioli et al., 2011).

The second question in the interview form is “What are the factors that affect you when you evaluate the whole process? Can you elaborate?” It was determined that the intervention was effective under 2 main themes: artistic activities and group work. Codes under the artistic activities theme were determined to be interpreting images (f = 15), listening to music (f = 8), writing stories and poetry (f = 7), acting as movie characters (f = 6), painting (f = 5), and creating body sculptures (f = 4). Codes under the group work theme were determined to be sharing feelings and thoughts (f = 20) and having common feelings (f = 16). The opinions of some of the participants on this topic are presented below.

K5: *“In the second session, selecting images made it possible to ask myself questions about my own life, what I expect, what I want and what my goal is. In addition, the music exercise enhanced my positive emotions, which calmed me down and made me think about what path I should take and that I should step up by working on myself. Sharing these feelings within the group, writing verses and stories together, and seeing that we shared common feelings also affected me”.*

K2: *“The movie I chose and acting as a character in that movie had a great effect on me. The character in the movie was also moving through obstacles in their life. Getting in his place and*

thinking about what they would tell me right then and hearing their words in my head really had an effect on me. In addition, seeing the characters that other people in the group had chosen was also like a preview of these people for me. The idea that most of us chose the characters we wanted to be and taking on their strengths to move through life without stopping like them felt very good. Creating body sculptures of the common themes we chose also made the process tangible by showing me that we had common feelings”.

Codes under the artistic activities theme were determined to be interpreting images, listening to music, writing stories and poetry, acting as movie characters, painting, and creating body sculptures. In a 4-hour musical workshop conducted by Fairchild and McFerran (2019), with young people who were domestic violence victims and homeless, the methods of musical warm-up exercises, sharing a song that was meaningful to the participants, drawing exercises based on the inspiration participants gained from earlier exercises, collaborative song writing focusing on the relationship with music were used.

K9: *“The painting we created in the last session had a deep effect on me. It made my goal in life, the path I have taken to achieve this goal, and my sources of motivation clear and concrete. Sharing my thoughts and feelings with the group and hearing about their thoughts and feelings influenced me and increased my self-awareness”.*

K8: *“Working together with other people in the group, writing poems and stories together, creating body sculptures, having common feelings despite our differences, and expressing them without judgment or criticism and sharing the same feelings were very effective in my process”.*

Codes under the group work theme were determined to be sharing feelings and thoughts and having common feelings. According to Yalom (2002, p. 21–22), one of the therapeutic factors of group psychological counseling is instilling hope in the group members. According to Larsen et al. (2018), the participants can reconnect with their pre-existing sense of hope and gain awareness through the communication they have established with other group members and sharing.

DISCUSSION

The aim of this study was to examine the effect of hope-focused intervention based on the creative art approach on the level of hope of university students. The research results showed that there was an increase in the total DHS, ATS, and AWTS scores, which are sub-dimensions of dispositional hope, of the participants who took part in the hope-focused intervention based on the creative art approach.

As part of the second stage of the research, the collection and processing of qualitative data, semi-structured interviews were carried out with the students. The first question in the interview form was: "Has the hope-focused intervention based on the creative art approach been effective in increasing your hope? If so, how?" As a result of the content analysis conducted for the answers to this question, it was determined that the intervention was effective in increasing the hopes of the participants under 2 main themes: career and personal development.

The code under the career theme was determined to be the clarification of goals. This result of the research supported Snyder's (1994) theory of hope. According to Davidson et al. (2012), hope is a form of cognition oriented towards goals. According to the theory of hope, high hope is also associated with setting more specific goals (Snyder et al., 1997; Snyder, 2002). While students with high levels of hope can clearly conceptualize their goals, students with low levels of hope have more uncertainty and contradictions about their goals (Snyder, 1994). The results of a study by Chevans et al. (2019), conducted with university students, showed that individuals with a high level of hope are more likely to engage in behaviors aimed at setting successful goals than those with a lower level of hope. In addition, it is anticipated that university students with a high level of hope may be more successful in achieving their goals (Feldman et al., 2009). College years can pose various difficulties,

and setting a goal in these years can help students to cope with difficulties (Pfund et al., 2020). Thus, it is thought that hope-focused work aimed at university youth may help young people to set goals for themselves.

The codes under the personal development theme were determined to be self-efficacy, perseverance, awareness, and gratitude. Similar to hope, self-efficacy is oriented towards the future and plays an important role in goal-oriented behavior (Gallagher et al., 2019). Self-efficacy includes perceptions that one can perform certain behaviors that are necessary to achieve a desired result (Bandura, 1982a). The results of hope-focused intervention studies conducted with university students have shown that the self-efficacy levels of students, as well as their academic achievement and score averages, increase with an increasing level of hope. (Davidson et al., 2012; Tian et al., 2018). Advancing the personal resources of university students, such as self-efficacy, to help them attune themselves with their new roles and their expectations, can also help them develop skills of hopeful thinking (Shade, 2006).

Another code under the theme of personal development is perseverance. Perseverance is recognized as one of the character strengths (Peterson, & Seligman, 2004, p.229-249). Hope and perseverance are connected with each other and support each other (Hugman, & Pawar, 2021). People with a high level of hope are more determined in the process of achieving their desired goals (Snyder, 2002). Perseverance is also keeping the expectation that the future will be better through our own efforts by depending on hope. The hope that determined individuals have is not about luck, but about being able to stand up again after falling down (Duckworth, 2019, p.195). In this study, it was thought that the participants developed feelings of perseverance along with hope that would help them to achieve their goals and overcome the obstacles in the way of these goals.

Another code under the theme of personal development is awareness. The results of the study conducted by Larsen et al. (2015) showed that during sessions of hope-focused group work, the participants reported moments of a change in perspective or experiencing newfound awareness of their strengths, and that these moments were generally enlightening and had a positive, hopeful effect on thoughts of their personal resources or the difficulties they faced. In addition, awareness helps individuals to identify their goals and define obstacles in the way of achieving these goals. Awareness is a predictor of identifying obstacles in the way of a goal. With an increase in awareness, goal-oriented effort (Cowden & Meyer-Weitz, 2016), problem solving strategies (Burwell & Shirk, 2007), and showing better performance to achieve goals also increase (Donovan et al., 2015). Based on all of these research results, it is thought that the relationship between hope and awareness obtained in this study is creating goals that are components of hope and defining obstacles on this way and realizing one's own potential to overcome these obstacles.

Another code under the theme of personal development of the research is gratitude. There is a positive relationship between hope and gratitude (Feng, & Yin, 2021; Kardaş et al., 2019, Witvliet et al., 2019). Gratitude is a positive assessment of what is already present in the lives of individuals, and hope is a positive expectation of future results (Scioli et al., 2011). McCullough et al. (2002) argued that people with gratitude and hope enjoy their lives and look at the past positively, pursue their goals for a meaningful future, and that the inner social orientation of gratitude contributes to forming hope. Witvliet et al. (2019) argued that individuals who are grateful for their past can also have their hopes for the future improved.

The second question in the interview form is “What are the factors that affect you when you evaluate the whole process? Can you elaborate? It was determined that the intervention work was effective under 2 main themes: artistic activities and group work.

Codes under the artistic activities theme were determined to be interpreting images, listening to music, writing stories and poetry, acting as movie characters, painting, and creating body sculptures. In a 4-hour musical workshop conducted by Fairchild and McFerran (2019), with young people who were domestic violence victims and homeless, the methods of musical warm-up exercises, sharing a

song that was meaningful to the participants, drawing exercises based on the inspiration participants gained from earlier exercises, collaborative song writing focusing on the relationship with music were used. As a result of the study, 2 themes emerged. These themes were using music as an escape and that music increases hope. In another group study conducted by Larsen et al. (2018), stories were told through collage work representing hope in each of the 3 sessions. As a result of the study, it was determined that the participants' feelings of hope increased and their chronic pain decreased. In another study conducted by Bishop and Willis (2014), the researchers used poems, which is one of the techniques among creative and expressive art. As a result of the research, the young people expressed that hope is important for them and that reading poetry themselves out loud was an effective technique. In addition, it was observed that the participants' use of metaphors, such as the smell, taste, and emotion that hope evokes in, them made hope turn into a more tangible concept (Bishop & Willis, 2014). In light of the results obtained from all of these studies and the current research, it can be said that hope-focused studies based on the creative art approach are effective. In addition, it is rarely effective to only tell clients to think positively (Wilkinson & Kitzinger, 2000). Clinton and Wilkinson (2009) state that art therapy is effective in focusing on the positive and restoring the mood, as well as expressing themselves through art. Using creative approaches instead can be much more effective.

Codes under the group work theme were determined to be sharing feelings and thoughts and having common feelings. According to Yalom (2002, p. 21–22), one of the therapeutic factors of group psychological counseling is instilling hope in the group members. According to Larsen et al. (2018), the participants can reconnect with their pre-existing sense of hope and gain awareness through the communication they have established with other group members and sharing. During group sessions, people share their thoughts and feelings out loud, while also discovering their strengths, by having the opportunity to compare themselves with others (Larsen et al., 2018). In another study conducted by Larsen et al. (2015), the participants reported that their experiences of "integrity with the group" increased the sense of hope within the group. The same research also showed that the acceptance of group members by other group members during sessions and the fact that they feel comfortable and safe strengthen the sense of hope. The results of this research, that doing collaborative artistic activities, expressing their feelings and thoughts freely, listening to each other without judgment, and seeing from the perspectives of others helps to increase the hopes of group members, was in agreement with the findings of other studies (Larsen et al., 2015; Larsen et al., 2018).

Based on the results obtained from this research, it is suggested that hope-focused intervention based on creative art exercises should be applied to individuals from different age groups. In addition, this research was conducted with young people who did not have a mental health disorder or a chronic condition. Considering the positive results obtained from hope-focused research with individuals experiencing health problems (Scheinberg, 2012; Larsen et al., 2015; Larsen et al., 2018; Chan et al., 2019), it is suggested that hope-focused intervention based on creative art exercises should be applied to more individuals experiencing different health problems. It is also thought that integrating programs that will be applied in hope-focused interventions with artistic activities will increase the effectiveness of the program. In addition, it is suggested that the relationships between other concepts related to hope (clarification of goals, self-efficacy, perseverance, awareness, and gratitude) obtained from the qualitative findings of this study should be investigated with quantitative measurements and compared.

Limitations and Future Research

Not performing follow-up measurement after the experimental study was among the limitations of this study. Follow-up tests can also be performed to determine whether the effectiveness continues in future studies. Another limitation of this study was that no work was conducted with the control group. Comparing the effectiveness of hope-focused intervention based on different psychological counseling approaches would provide more information on the subject.

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REFERENCES

- Arnett, J. J. (2014). Presidential address: The emergence of emerging adulthood: A personal history. *Emerging Adulthood*, 2(3), 155-162. <https://doi.org/10.1177/216769681454109>.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>.
- Bailey, T. C., Eng, W., Frisch, M. B., & Snyder, C. R. (2007). Hope and optimism as related to life satisfaction. *The Journal of Positive Psychology*, 2(3), 168–175. <https://doi.org/10.1080/17439760701409546>.
- Berg, C. J., C.R. Snyder, C. R., Hamilton, N. (2008) The effectiveness of a hope intervention in coping with cold pressor pain. *Journal of Health Psychology*. 13(6) 804–809. <https://doi.org/10.1177/1359105308093864>.
- Bishop, E.C. & Willis, K.F. (2014). “Hope is that fiery feeling”: Using poetry as data to explore the meanings of hope for young people, *Forum: Qualitative social research*, 15(1). <https://doi.org/10.17169/fqs-15.1.2013>
- Braver, M. W., & S. L. Braver. (1988). Statistical treatment of the solomon four-group design: A meta-analytic approach. *Psychological Bulletin* 104 (1), 150–154.
- Burwell, R. A., & Shirk, S. R. (2007). Subtypes of rumination in adolescence: Associations between brooding, reflection, depressive symptoms, and coping. *Journal of Clinical Child & Adolescent Psychology*, 36, 56-65. <https://doi.org/10.1080/15374410709336568>.
- Chan, K., Wong, F. K. Y., & Lee, P. H. (2019). A brief hope intervention to increase hope level and improve well-being in rehabilitating cancer patients: A feasibility test. *SAGE Open Nursing*, 5, 1–13. <https://doi.org/10.1177/2377960819844381>.
- Cheavens, J.S., Heiy, J., E., Feldman, D., B., Benitez, C & Rand, K., L (2019) Hope, goals, and pathways: Further validating the hope scale with observer ratings, *The Journal of Positive Psychology*, 14(4), 452-462. <https://doi.org/10.1080/17439760.2018.1484937>.
- Chilton, A., & Wilkinson, B. (2009). Positive art therapy: Envisioning the intersection of art therapy and positive psychology. *Australia and New Zealand Journal of Art Therapy*, 4(1), 27–35. <https://doi.org/10.1080/07421656.2013.757513>.
- Cole, B. P. (2008). *Correlations between trait and academic measure of hope and the inventory on learning climate and student well-being*. [Unpublished master’s thesis], Kansas University.

- Cotter, V. T., Gonzalez, E. W., Fisher, K., & Richard, K. C. (2018). Influence of hope, social support, and self-esteem in early stage dementia. *Dementia*, 17(2), 214-224. <https://doi.org/10.1177/1471301217741744>.
- Cowden, R. G., & Meyer-Weitz, A. (2016). Self-reflection and self-insight predict resilience and stress in competitive tennis. *Social Behavior and Personality: An International Journal*, 44, 1133-1149. <https://doi.org/10.2224/sbp.2016.44.7.1133>.
- Creswell, J. W., & Plano-Clark, V. L. (2017). *Designing and conducting mixed methods Research* (3rd ed), (pp. 77). SAGE.
- Davidson, O. B., Feldman, D. B., & Margalit, M. (2012). A focused intervention for 1st-year college students: Promoting hope, Sense of coherence, and self-efficacy. *The Journal of Psychology*, 146, 333-352. <http://doi.org/10.1080/00223980.2011.634862>.
- Donovan, S. J., Güss, C. D., & Naslund, D. (2015). Improving dynamic decision making through training and self-reflection. *Judgment and Decision Making*, 10, 284-295. <http://journal.sjdm.org/14/14411/jdm14411.pdf>.
- Duckworth, A. (2019). *Azim*. (Ö. Taner, trans.), (pp.195). Pegasus Publisher.
- Dwivedi, A. & Rastogi, R. (2017). Future time perspective, hope and life satisfaction: A study on emerging adulthood. *Jindal Journal of Business Research* 5(1), 17-25. <https://doi.org/10.1177/2278682116673790>.
- Fairchild, R., & McFerran, K.S. (2019). "Music is everything": Using collaborative group songwriting as an arts-based method with children experiencing homelessness and family violence, *Nordic Journal of Music Therapy*, 28(2), 88-107. <https://doi.org/10.1080/08098131.2018.1509106>.
- Feldman, D.B., & Dreher, D.E. (2012). Can hope be changed in 90 minutes? Testing the efficacy of a single-session goal-pursuit intervention for college students. *Journal of Happiness Studies*.13, 745-759. <https://doi.org/10.1007/s10902-011-9292-4>.
- Feldman, D. B., & Kubota, M. (2015). Hope, self-efficacy, optimism, and academic achievement: Distinguishing constructs and levels of specificity in predicting college grade-point average. *Learning and Individual Differences*, 37, 210-216. <https://doi.org/10.1016/j.lindif.2014.11.022>.
- Feng, L., & Yin, R. (2021). Social support and hope mediate the relationship between gratitude and depression among front-line medical staff during the pandemic of COVID-19. *Frontiers in Psychology*. 12, 623873. <https://doi.org/10.3389/fpsyg.2021.623873>.
- Forgeard, M. J. C., & Eichner, K. V. (2014). Creativity as a target and tool for positive interventions. In A. C. Parks & S. M. Schueller (Eds.), *The Wiley Blackwell handbook of positive psychological interventions* (pp. 137-154). Wiley Blackwell. <https://doi.org/10.1002/9781118315927.ch7>
- Frank, J.D. (1975). The faith that heals. *Johns Hopkins Medical Journal*, 137, 127-131.
- Heppner, P. P., Wampold, B. E. & Kivlighan, D. M. (2007). *Research design in counseling. (Research, Statistics, & Program Evaluation)* (pp.155-157). (3. edition). Brooks Cole.
- Hutz, C. S., Midgett, A., Pacico, J. C., Bastianello, M. R., & Zanon, C. (2014). The relationship of hope, optimism, self-esteem, subjective well-being, and personality in Brazilians and Americans. *Psychology*, 5(6), 514-522. <https://doi.org/10.4236/psych.2014.56061>

- Gallagher, M. W., Long, L.J., & Phillips, C.A. (2019). Hope, optimism, self-efficacy, and posttraumatic stress disorder: A meta-analytic review of the protective effects of positive expectancies. *Journal of Clinical Psychology* 1–27. <https://doi.org/10.1002/jclp.22882>.
- Larsen, D. J., Stege, R., King, R., & Egeli, N. (2018). The hope collage activity: an arts-based group intervention for people with chronic pain. *British Journal of Guidance & Counselling*, 46(6), 722–737. <https://doi.org/10.1080/03069885.2018.1453046>.
- Larsen, D. J., King, R. L., Stege, R., & Egeli, N. A. (2015). Hope in a strengths-based group activity for individuals with chronic pain. *Counselling Psychology Quarterly*, 28(2), 175–199. <https://doi.org/10.1080/09515070.2015.1007444>.
- Mashiach-Eizenberg, M., Hasson-Ohayon, I., Yanos, P. T., Lysaker, P. H., & Roe, D. (2013). Internalized stigma and quality of life among persons with severe mental illness: The mediating roles of self-esteem and hope. *Psychiatry Research*, 208 (1), 15-20. <https://doi.org/10.1016/j.psychres.2013.03.013>.
- McCullough, M. E., Emmons, R., & Tsang, J. A. (2002). The grateful disposition: a conceptual and empirical topography. *Journal of Personality and Social Psychology*. 82(1), 112–127. <https://doi.org/10.1037//0022-3514.82.1.112>.
- Melges, R., & Bowlby, J. (1969). Types of hopelessness in psychopathological processes. *Archives of General Psychiatry*, 20, 690–699. <https://doi.org/10.1001/archpsyc.1969.01740180074007>.
- Miller, J. F. (2007). Hope: A construct central to nursing. *Nursing Forum*, 42 (1), 12-19. <https://doi.org/10.1111/j.1744-6198.2007.00061.x>.
- Ong, A. D., Edwards, L. M., & Bergeman, C. S. (2006). Hope as a source of resilience in later adulthood. *Personality and Individual Differences*, 41(7), 1263-1273 <https://doi.org/10.1016/j.paid.2006.03.028>
- Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. (pp.229-249). Oxford University Press
- Pfund, G. N., Bono, T. J., & Hill, P. L. (2020). A higher goal during higher education: The power of purpose in life during university. *Translational Issues in Psychological Science*, 6(2), 97–106. <https://doi.org/10.1037/tps0000231>
- Scheinberg, P. (2012). *Exploring hope and quality of life: A proposal for a group art therapy hope intervention for individuals diagnosed with lupus*. [Unpublished doctoral dissertation], Eastern Virginia Medical School.
- Schulenberg, J, Bryant, A., & O'Malley, P. (2004). Taking hold of some kind of life: How developmental tasks relate to trajectories of well-being during the transition to adulthood. *Development and Psychopathology*, 16(4), 1119-1140. <https://doi.org/10.1017/S0954579404040167>.
- Schrank, B., Amering, M., Hay, A. G., Weber, M., & Sibitz, I. (2014). Insight, positive and negative symptoms, hope, depression and self-stigma: A comprehensive model of mutual influences in schizophrenia spectrum disorders. *Epidemiology & Psychiatric Sciences*, 23(3), 271-27. <https://doi.org/10.1017/S2045796013000322>.
- Scioli, A., Ricci, M., Nyugen, T., & Scioli, E. R. (2011). Hope: its nature and measurement. *Psychology of Religion and Spirituality*, 3(2), 78-97. <https://doi.org/10.1037/a0020903>.

- Shade, P. (2006). Educating hopes. *Studies in Philosophy and Education*, 25(3), 191–225. <https://doi.org/10.1007/s11217-005-1251-2>.
- Snyder, C.R., Harris, C., Anderson, J.R., Holeran, S.A., Irving, L.M., Sigmon, S.T, Yoshinobu, L., Gibb, J, Langelle, C., & Harney, P. (1991). The will and the ways: Development and validation of an individual differences measure of hope. *Journal of Personality and Social Psychology*, 60(4), 570–585.
- Snyder, C.R. (1995). Conceptualizing, measuring, and nurturing hope. *Journal of Counseling & Development*, 73(3), 355–360. <https://doi.org/10.1002/j.1556-6676.1995.tb01764.x>
- Snyder, C. R., Hoza B., Pelham, W.E., Rapoff, M., Ware, L., Danovsky, M., Highberger, L., Rubinstein, H., & Stahl, K. J. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22(3), 399–421. <https://doi.org/10.1093/jpepsy/22.3.399>.
- Snyder, C. R., LaPointe, A. B., Crowson, J. J., Jr., & Early, S. (1998). Preferences of high- and low-hope people for self-referential input. *Cognition and Emotion*, 12(6), 807–823. <https://doi.org/10.1080/026999398379448>
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13(4), 249–275.
- Snyder, C. R., Rand, K. L., & Sigmon, D. R. (2005). Hope theory: A member of the positive psychology family. In C. R. Snyder, & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 257–276). NY: Oxford University Press.
- Steca, P., Caprara, G.V., Tramontano, C., Vecchio, G.M., & Roth, E. (2009). Young adults 'life satisfaction: The role of self-regulatory efficacy beliefs in managing affects and relationships across time and across cultures. *Journal of Social and Clinical Psychology*, 28(7), 824–861. <https://doi.org/10.1521/jscp.2009.28.7.824>
- Tarhan, S., & Bacanlı, H. (2015). Adaptation of dispositional hope scale into Turkish: Validity and reliability study. *J. Happiness Well Being* 3, 1–14.
- Tian, M., Yan, S., & Wang, N. (2018). Evaluating the effectiveness of Snyder's theory-based group hope therapy to improve self-efficacy of university students in finance. *Neuro Quantology*, 16(6), 118–124. <https://doi.org/10.14704/nq.2018.16.6.1314>.
- Tsukasa K., & Snyder C. R. (2005). The relationship between hope and subjective well-being: Reliability and validity of the dispositional hope scale, Japanese version. *Japanese Journal of Psychology*, 76 (3), 227–234. <https://doi.org/10.4992/jjpsy.76.227>
- Waynor, W. R., Gao, N., Dolce, J. N., Haytas, L. A., & Reilly, A. (2012). The relationship between hope and symptoms. *Psychiatric Rehabilitation Journal*, 35(4), 345–348. <https://doi.org/10.2975/35.4.2012.345.348>.
- Weis, R., & Speridakos, E. C. (2011). A meta-analysis of hope enhancement strategies in clinical and community settings. *Psychology of Well-Being*, 1(5), 1–16. <https://doi.org/10.1186/2211-1522-1-5>.
- Wilkinson, R. A., & Chilton, G. (2013). Positive art therapy: Linking positive psychology to art therapy theory, practice, and research. *Art Therapy*, 30(1), 4–11. <https://doi.org/10.1080/07421656.2013.757513>

- Wilkinson, S., & Kitzinger, C. (2000). Thinking differently about thinking positive: A discursive approach to cancer patients'talk. *Social Science & Medicine*, 50(6), 797–811. [https://doi.org/10.1016/S0277-9536\(99\)00337-8](https://doi.org/10.1016/S0277-9536(99)00337-8).
- Witvliet, C., Richie, F., Luna, L., & Tongeren, D. (2019). Gratitude predicts hope and happiness: a two–study assessment of traits and states. *Journal of Positive Psychology*. 14 (3), 271–282. <https://doi.org/10.1080/17439760.2018.1424924>.
- Wood, D., Crapnell, T., Lau, L., Bennett, A., Lotstein, D., Ferris, M., & Kuo, A. (2018). Emerging adulthood as a critical stage in the life course. In N. Halfon, C. Forrest, R. Lerner, & E. Faustman (Eds.), *Handbook of Life Course Health Development* (pp. 123-143). Springer. https://doi.org/10.1007/978-3-319-47143-3_7.
- Yalom, I. (2002). *The theory and practice of group psychotherapy* (A. Tangör & Ö. Karaçam, trans.), (pp.21-22). Kabalıcı Publisher.
- Yıldırım, A., & Şimşek, H. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. (pp. 77) Seçkin Publisher.