



Investigation of the Effects of Art Therapy on Self-Compassion, Mood and Cognitive Functioning Levels in the Elderly

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Özet

Bu çalışmanın amacı, yaşlı bireylerde sanat terapisi uygulamalarının öz anlayış, pozitif Negative Affect durum ve bilişsel işlev düzeylerine etkisinin incelenmesidir. Araştırmada, Pre-test-Post-test kontrol gruplu yarı deneysel desen kullanılmıştır. Araştırmanın örneklemini çalışma (n=25) ve karşılaştırma (n=25) gruplarından oluşan 50 yaşlı birey oluşturmaktadır. Örneklemin tamamı uzun süreli bir bakım evinde yaşamaktadır ve erkektir. Katılımcılara Sosyodemografik Bilgi Formu, Pozitif-Negative Affectlanım Ölçeği, Self-Compassion Scale ve Standardize Mini Mental Test uygulamıştır. Research Groupna araştırmacılar tarafından haftada bir kez olmak üzere Total 10 oturum (her oturum 90 dakika) Sanat Terapisi Programı uygulanmıştır. Karşılaştırma grubu herhangi bir uygulamaya dâhil edilmemiştir. Bu çalışmada elde edilen verilerin analizi SPSS 25.0 ile yapılmış olup, Bağımlı Gruplar T testi ile Bağımsız Gruplar T testi kullanılmıştır. Elde edilen araştırma bulgularının sonucunda çalışma ve karşılaştırma gruplarının Post-test puanları arasında istatistiksel olarak anlamlı farklar ($p<.05$) olduğu saptanmıştır. Uygulanan Sanat Terapisi Programı sonrası, çalışma grubuna katılan yaşlı bireylerin pozitif duygulanım ve öz anlayış düzeyleri yükselmiştir. Katılımcıların bilişsel işlev düzeylerinde istatistiksel olarak anlamlı bir fark saptanmamıştır ($p>.05$). Yaşlı bireyler ile birlikte yürütülen Sanat Terapisi üzerine az sayıda nicel çalışma bulunmaktadır. Çalışma, yaşlı

bireylerin hayatlarını iyileştirmek amaçlı, Sanat Terapisi uygulamanın deneysel araştırma üzerinde incelenme imkânı vermesi açısından önem taşımaktadır.

Anahtar Kelimeler: Bilişsel işlev, öz-anlayış, pozitif Negative Affectlanım, sanat terapisi, yaşlılık

Abstract

The aim of this study is to examine the effects of art therapy practices on self-compassion, positive-negative mood and cognitive function levels in elderly individuals. In the research, a quasi-experimental design with pretest-posttest control group was used. The sample of the study consists of 50 elderly individuals who are in the study (n=25) and comparison (n=25) groups. The entire sample lives in a long-term care home and is male. Sociodemographic Information Form, Positive-Negative Affect Scale, Self-Compassion Scale and Standardized Mini-Mental Test were administered to the participants. The Art Therapy Program was applied to the study group by the researchers once a week for a total of 10 sessions (each session 90 minutes). The comparison group was not included in any application. The analysis of the data obtained in this study was made with SPSS 25.0 and Dependent Groups T test and Independent Groups T test were used. As a result of the research findings, it was determined that there were statistically significant differences ($p < .05$) between the post-test scores of the study and comparison groups. After the Art Therapy Program, the positive affect and self-compassion levels of the elderly individuals participating in the study group increased. No statistically significant difference was found in the cognitive function levels of the participants. There are few quantitative studies on Art Therapy conducted with elderly individuals. The study is important in terms of giving the opportunity to examine the application of Art Therapy on experimental research to improve the lives of elderly individuals.

Keywords: Cognitive function, self-compassion, positive-negative affect, art therapy, elderly

Introduction

Aging is defined as the irreversible changes in daily life functioning. In terms of years of life, people aged 65 and over are considered among the elderly (Koldaş, 2017). Increasingly, the elderly population around the world has caused a demographic transformation. This transformation has brought along many problems as well as new social structuring (Mitrecic, 2020). Therefore, any research that will contribute to increasing the quality of life and well-being of elderly individuals will provide critical information and insight about this issue.

Art therapy is a treatment method applied using artistic materials including paint, clay, wood, and music (Shostak et al., 1985). It is used for helping individuals create meaning, gain insight, personal development, solve problems, reduce physical problems, and contribute to their psychological well-being (Coşkun et al., 2010; Case, Dalley, 2006; Geue et al., 2010; Malchiodi, 2005). It is an expressive therapy method in which artistic activities such as painting, collage, clay,

music, poetry and creative writing are used (Demir, 2017). Many experts agree that the creative process is therapeutic for many individuals (Case, Dalley, 2006; Rabin, 2003).

Art therapy can work with individuals of all ages. Art therapy has been viewed as a particularly valuable method for individuals who cannot express their feelings and thoughts with words. Healthy elderly individuals, elderly people with physical diseases and elderly individuals with dementia can be seen as among these individuals (Demir, Yıldırım, 2017). Additionally, artistic creation provides an opportunity for nonverbal communication for the elderly. It provides the opportunity for interpersonal interaction and social support. It also makes it easier for them to express their feelings and thoughts. The goals that are tried to be achieved in art therapy practices with the elderly are as follows: a) To ensure the release of suppressed feelings and thoughts and expressing problems with verbal and written expressions. b) To make them proud of themselves by creating an artistic creation. c) To recall memories of childhood, school, work, family and encourage life review. d) To provide a non-verbal, visual communication tool especially for those who have difficulties in verbal expression (dementia, paralysis). e) To move individuals away from social isolation and despair by promoting group support in art therapy groups. f) To enable clients to make their own choices, be authentic and develop a sense of self-esteem (Wald, 1983; 1986; 1989).

Art therapy is a suitable method for the discharge and control of emotions in elderly individuals. In addition, art therapy allows individuals to evaluate themselves and allows their talents to be revealed. People can accept experiences that they have difficulty in accepting through art therapy (Buchhalter, 2011). Mental health professionals have suggested that encouraging and supporting art therapy practices can be effective when working with older adults. Cohen et al. (2006) tested the effectiveness of an art therapy program for elderly individuals. Researchers have found improvement in both physical and psychological health of individuals participating in the art therapy program compared to the control group. McCaffrey et al. (2011) administered art therapy to 39 elderly individuals aged 65 and over twice each week for six consecutive weeks. As a result of the analysis, it was observed that the elderly individuals participating in the program were effective in terms reducing their feelings of loneliness and depressive symptoms. Some studies have focused on individuals with dementia who are coping with memory loss and limited communication skills (Abraham, 2005; Alders, Levine-Madori, 2010; Hattori et al., 2011; Mimica,

Kalinic, 2011; Rusted et al., 2006; Safar, Press, 2011; Shore, 1997; Stallings, 2010; Stewart, 2004). In the light of the findings of the studies, the researchers reported that art therapy is a promising method for the elderly.

Art therapy is also beneficial on affective and cognitive processes when applied in centers including nursing homes, caregiving centers, and clinics. Art therapy can inform individuals against the negative effects of stress in daily life and in times of crisis and contribute to their coping skills (Buchhalter, 2011; Paskaleva, Uzunova, 2015). Art and creative process causes an increase in self-esteem and happiness levels (Castora-Binkley et al., 2010; Kim, 2013; Stevenson, Orr, 2013). In addition, the creative process in old age contributes to well-being by improving problem-solving skills, verbal expression, perception, and attention (Abraham, 2005; Alders, Levine-Madori, 2010; Stallings, 2010; Stewart, 2004). Turetsky and Hays (2003) found that art therapy was effective in reducing depression levels in a study they conducted with elderly individuals who felt longing grief due to leaving their past lives behind.

There is not enough research in the literature because studies that test the effectiveness of psychosocial intervention programs are challenging and time-consuming. It is seen that there are limited number of studies conducted to test the effectiveness of the art therapy program on elderly individuals in Turkey. The main purpose of this research is to answer the questions as following: “Does the art therapy program affect the self-compassion, positive-negative affect and cognitive function levels of elderly individuals?”

Material and Method

Research Design

This research is a quasi-experimental study with research and comparison groups. In quasi-experimental method, participants were measured about the dependent variable before and after the experimental procedure (Karasar, 2014). The symbolic view of the research pattern is as following:

Table 1

Information about research procedures

Groups	Selection	Pre-test	Treatment	Post-test
Experimental	Random	PANAS, SCC, SMMT	Art Therapy	PANAS, SCC, SMMT
Control	Random	PANAS, SCC, SMMT	-----	PANAS, SCC, SMMT

Participants

The sample group of the study consists of elderly individuals aged 65 and over (n=50) living in a nursery home in Istanbul, Turkey. Participants were assigned to the study and comparison groups by convenient sampling method. The entire sample (study and comparison group) consists of male participants. This is because the number of men who volunteered to participate in the study and lived in a long-term care home was much higher. Elderly individuals with any long-term psychiatric disorder and a diagnosis of dementia were not included in the study. 50 people who agreed to participate in the study and whose written consent forms were obtained were randomly assigned to the research group (n = 25) and comparison group (n = 25).

Ethics committee approval was obtained for this study from Üsküdar University Non-Interventional Research Ethics Committee with the decision number 61351342/MAY2021-31 dated 28/05/2021. The research was conducted in accordance with the Principles of the Declaration of Helsinki.

Measurement Instrument

In this study, the Sociodemographic Information Form, the Positive and Negative Affect Scale (PANAS), the Self-Compassion Scale (SSS), and the Standardized Mini-Mental Test (SMMT) were used. The scales were applied as a pre-test before starting the art therapy program and as a post-test after the program was completed. Participants completed the scales individually with little assistance needed. The scales of the illiterate participants were filled face-to-face with the help of the researcher. The psychometric properties of the scales are given below.

Sociodemographic Information Form

With this form prepared by the researchers for collecting data about the personal information of the participants, age, gender, education level, marital status, employment status, psychological and other physical disorders were asked.

Positive-Negative Affect Scale (PANAS)

The scale developed by Watson et al. (1988) consisting of two subscales, Positive Affect and Negative Affect, each of which consists of 10 items. The lowest score that can be obtained from the 5-point Likert-type scale is 1; the highest score is 50. The internal consistency of the scale ranged from .86 to .90 for the Positive Affects sub-dimension, while it ranged from .84 to .87 for the Negative Affects (Watson et al., 1988). The Turkish adaptation of the Positive and Negative Affect Scale was carried out by Gençöz (2000). In the Turkish adaptation study, the internal consistency of the scale was observed as .83 for Positive Affect and .86 for Negative Affect. The internal consistency coefficient found with the test-retest applied to the scale afterward was found to be .40 for Positive Affect and .54 for Negative Affect.

Self-Compassion Scale

It was developed by Neff (2003) and its Turkish adaptation validity and reliability studies were carried out by Deniz, Kesici and Sümer (2008). The Turkish form of the scale has a 5-point Likert-type evaluation, consisting of 24 items with one factor. For the reliability of the scale, the Cronbach Alpha internal consistency coefficient calculated based on the item analysis was .89; The test-retest correlation coefficient was found to be .83.

Standardized Mini Mental Test (SMMT)

The Turkish adaptation of the scale developed by Folstein et al. (1975) was made by Güngen et al. (2002). It is arranged separately for literate and illiterate. According to the scores obtained from the Standardized Mini Mental Test; 0-9 points of severe cognitive impairment, 10-19 points of moderate cognitive impairment, 20-23 points of mild cognitive impairment, and 24-30 points are considered normal limits.

Art Therapy Program

The content of the program applied in the research; The aim of the study is for the elderly individuals participating in the study to realize and express their feelings and thoughts with appropriate methods and artistic materials. Many associations emerge through the artistic creations created. Studies on the reminders of these associations help to accept the emotions, thoughts and

experiences that are difficult to accept. The program was prepared by researchers using many sources (Çınar, 2019; Degges-White, Davis, 2019; Demir, 2018; Eracar, 2013; Güner, Genç 2019).

The research program was completed as a total of 10 sessions, one session per week (each session 90 minutes) with the participation of the Research Group. The functioning of each session in the art therapy program is structured. The rules of the group were determined together with the group members, and decisions were taken about continuity, confidentiality and practices.

Session I

Objectives

Enhanced self-awareness, new perspectives on personal experience and goal setting.

Materials

All kinds of art materials such as paper and writing instruments, drawing paper, crayons, crayons or felt-tip pens, colored papers.

Process

Participants were asked to draw a tree and focus on and express their emotions based on lines and colors. At the end of the session, how the participants felt during and after the application was discussed.

Session II

Objectives

To enable the participants to become aware of their emotions and develop skills in expressing them verbally and non-verbally.

Materials

Finger paints, crayons, drawing papers, music, table, chair.

Process

For providing visual creation of emotions, the participants were asked to focus on the emotions they felt and to express the emotions they noticed using paint. It was discussed about how the colors they used made them feel and why.

Session III

Objectives

Increasing self-awareness, identifying coping mechanisms and exploring emotions.

Materials

All kinds of art materials including paper and writing instruments, drawing paper, crayons, crayons or felt-tip pens, colored papers.

Process

They were asked to paint a picture depicting their own life with important turning points in their lives, from the past to the present. Discussed with the participants about their own artistic creations, accompanied by questions such as: What are the important turning points in their lives? What makes them important? Negative events or positive events? If negative, how did you deal with it? If positive, what did you gain from it? How does all this affect your present moment?

Session IV

Objectives

To raise awareness about the situations that trigger anger and the reactions they give when they get angry.

Materials

10x15 cm cardboard, pencil, crayons, music, table, chair.

Process

Postcard templates prepared beforehand were given to the participants. After being reminded of how the postcards are prepared and for what purposes, the participants were asked to prepare their own postcards. They were allowed to fill in the postcards they had prepared as if they were going

to send them to someone who had upset, angered, or experienced negative emotions in the past. Emotions and thoughts were shared through the prepared postcards.

Session V

Objectives

Developing participants' ability to recognize and express their emotions in the here and now.

Materials

Paper and writing instruments, drawing paper, crayons, crayons or felt-tip pens.

Process

Participants were asked to visualize a circle in their minds. They were asked to shape and color the circle that appeared in their minds as they wished. Their feelings and thoughts were shared through the mandalas they made, accompanied by questions such as: “How do you feel about the resulting mandala?”, “What does this mandala mean to you?”, “What does this mandala tell you?”, “What colors did you use? What do the colors you use mean to you?”.

Session VI

Objectives

Developing trust, empathy and relationship.

materials

CD player, various instrumental music CDs, crayons, felt-tip pens, crayons.

Process

One minute of instrumental music was played from the selected CD. Participants were asked to transform the associations created by the music they listened to into visual images. They were then asked to write a story containing these visual images. At the end of the session, how the participants felt during and after the application was discussed.

Session VII

Objectives

Expressing feelings and thoughts concretely and setting goals.

Materials

Paper and writing instruments.

Process

A one-minute instrumental music from the selected CD was played to the participants. They were asked to write a poem describing this music. It was discussed with the participants over the images in the poem, accompanied by questions such as: What is the theme and main emotion of the poem? What is the main emotion of this poem and the emotions it evokes in you?

Session VIII

Objectives

Working self-confidence with individuals who need to gain awareness.

Materials

Drawing paper, cardboard box, colored pencils, colored papers, all kinds of art supplies

Process

Participants were asked to write down their strengths in the form of a list. Afterwards, they were asked to choose an animal for each feature on the list they wrote, representing that feature, and write a story including these animals. After the story writing was completed, it was discussed how the participants felt during and after the application and whether they had common feelings.

Session IX

Objectives

Disease management and problem solving.

Materials

All kinds of art materials such as paper and writing instruments, drawing paper, crayons, crayons or felt-tip pens, colored papers.

Process

What does being sick mean to you? His question was discussed, and they were asked to paint a picture about being sick. What does your well-being mean to you after this step is completed? His question was discussed, and they were asked to paint a picture depicting this state of well-being. Emotions and thoughts were discussed with the participants through the pictures made.

Session X

Objectives

To enable participants to connect with their bodies.

Materials

CD player, various instrumental music CDs,

Process

An instrumental piece of music was chosen. The clients were asked to listen to the music and to distinguish between different instruments. They were asked which instrument they felt closest to. They were asked to move under the influence of the sound emanating from the instrument they had chosen, and dance by letting themselves go with the flow. Then, to establish a connection between the body and the mind, the participants were discussed which emotions they felt in which part of their body.

Results

Data Analysis

The analysis of the data obtained in this study was made with SPSS 25.0 and Dependent Groups T test and Independent Groups T test were used. The assumption of normality was checked before conducting statistical analyses. Based on normality findings, the kurtosis and skewness values of the scale and subscales were checked for the normal distribution. Taking the study of George and Mallery (2010) as reference, these values being in the reference range of -2 +2 provides a normal distribution.

Table 2. Control and Research Group's Mini Mental State Test, Positive Negative Affect Scale, Self-Compassion Scale Skewness and Kurtosis Values

	Control Group		Research Group	
	Skewness	Kurtosis	Skewness	Kurtosis
MM Orientation-Pre-test	-1.605	1.236	-0.929	-0.525
MM KayıtHafızası-Pre-test	-1.044	-0.998	-1.597	0.593
MM Attention Calculation-Pre-test	-1.138	0.735	-0.600	-0.861
MM Recalling-Pre-test	-0.837	0.033	-0.733	-0.810
MM Language-Pre-test	-0.960	-0.017	-0.484	-0.392
Self-Compassion Scale-Pre-test	0.211	-1.271	-0.161	0.947
Negative Affect-Pre-test	0.739	0.255	0.323	-0.401
Positive Affect-Pre-test	-0.841	0.027	-0.130	-0.697
MM Orientation-Post-test	-1.557	1.056	-0.891	-0.564
MM Record Memory-Post-test	-1.975	2.061	-1.975	2.061
MM Attention Calculation-Post-test	-1.112	1.412	-0.366	-1.137
MM Recalling-Post-test	-0.473	-0.538	-0.822	-1.447
MM Language-Post-test	-1.086	0.181	-0.884	0.824
Self-Compassion Scale-Post-test	0.277	-0.560	-0.036	-0.239
Negative Affect-Post-test	0.853	-0.003	-0.160	0.151
Positive Affect-Post-test	0.136	-0.962	-0.386	-0.571

When we examine the values, the kurtosis and skewness values of the scale and its sub-dimensions are within the reference range. Dependent Groups T test and control and research group's Mini Mental State Test, Positive Negative Affect Scale, Self-Compassion Scale pretest-posttest scores show a difference, Independent Groups T test control and research group's Mini Mental State Test, Positive Negative Affect Scale, Self -Compassion Scale pretest scores were checked to see if there was a difference. The p value to be referenced is 0.05 and the confidence interval value is 95%.

Table 3. Participants' sociodemographic information

		Groups					
		Research group		Control group		Total	
		n	%	n	%	n	%
Education	Illiterate	1	4.0%	1	4.0%	2	4,0%
	Literate	2	8.0%	3	12.0%	5	10,0%
	Primary school	10	40.0%	8	32.0%	18	36,0%
	Secondary school	5	20.0%	5	20.0%	10	20,0%
	High school	5	20.0%	5	20.0%	10	20,0%
	Undergraduate	2	8.0%	3	12.0%	5	10,0%
Total		25	100,0%	25	100.0%	50	100.0%
Marital Status	Single	18	72.0%	19	76.0%	37	74,0%
	Widowed	7	28.0%	6	24.0%	13	26,0%
Total		25	100,0%	25	100.0%	50	100.0%
Number of Children	0	17	68.0%	18	72.0%	35	70,0%
	1	5	20.0%	2	8.0%	7	14,0%
	2	3	12.0%	4	16.0%	7	14,0%
	3	0	0.0%	1	4.0%	1	2,0%
Total		25	100,0%	25	100.0%	50	100.0%
Employment	Employee	1	4.0%	2	8.0%	3	6,0%
	Retired	12	48.0%	14	56.0%	26	52,0%
	Not working	12	48.0%	9	36.0%	21	42,0%
Total		25	100,0%	25	100.0%	50	100.0%
SED	Low	16	64.0%	15	60.0%	31	62,0%
	Middle	9	36.0%	10	40.0%	19	38,0%
Total		25	100,0%	25	100.0%	50	100.0%
Chronic Disorder	None	14	56.0%	13	52.0%	27	54,0%
	Diabetes	4	16.0%	6	24.0%	10	20,0%

	Cardiovascular disorder	2	8.0%	2	8.0%	4	8,0%
	High blood pressure	1	4.0%	1	4.0%	2	4,0%
	Other	4	16.0%	3	12.0%	7	14,0%
Total		25	100,0%	25	100.0%	50	100.0%
Psychological Disorder	None	21	84.0%	23	92.0%	44	88,0%
	Other	4	16.0%	2	8.0%	6	12,0%
Total		25	100,0%	25	100.0%	50	100.0%

4% of the participants in the Research Group are illiterate, 8% literate, 40% primary school, 20% secondary school, 20% high school, 8% university graduate, marital status % 72 single, 28% widowed, number of children 68% 0, 20% 1, 12% 2, 0% three, 4% working, 48% retired, % 48 of them were unemployed, their socioeconomic level was 64% low, 36% moderate, 56% had no physical illness, 16% had diabetes, 8% had cardiovascular disease, 4% had hypertension, 84% of them do not have a psychological disorder, 16% of them have other psychological diseases.

Education level of the participants in the Control Group is 4% illiterate, 12% literate, 32% primary school, 20% secondary school, 20% high school, 12% university graduate, 76% are single, 24% are widowed, 72% have no children, 8% have 1 child, 16% have 2 children, 4% have 3 children, 8% are working, 56% retired, 36% unemployed, 60% low income, 40% middle income, 52% no physical disease, 24% diabetes, 8% heart disease, 4% They have hypertension, 12% have other physical diseases, 92% have no psychological disease, 8% have other psychological diseases.

Table 3. Comparison of Study and Control Group's Mini Mental State Test, Positive Negative Affectivity Scale, Self-Compassion Scale Pre-test Scores

GRUP		n	\bar{X}	Ss.	t	Sd.	p
MM	Pre-test-Research	25	8.04	1.90	-0.68	48	0.497
Orientation	Group						
	Pre-test-Control Group	25	8.44	2.22			

MM Record	Pre-test-Research	25	2.80	0.41	0.65	48	0.518
Memory	Group						
	Pre-test-Control Group	25	2.72	0.46			
MM	Pre-test-Research	25	3.96	1.06	-1.32	48	0.192
Attention	Group						
Calculation	Pre-test-Control Group	25	4.32	0.85			
MM	Pre-test-Research	25	2.36	0.76	0.70	48	0.490
Recalling	Group						
	Pre-test-Control Group	25	2.20	0.87			
MM	Pre-test-Research	25	6.52	1.58	-0.86	48	0.395
Language	Group						
	Pre-test-Control Group	25	6.92	1.71			
Self-	Pre-test-Research	25	81.96	11.62	-1.29	48	0.204
Compassion	Group						
Scale	Pre-test-Control Group	25	86.36	12.54			
Negative	Pre-test-Research	25	24.64	8.22	2.60	48	0.012*
Affect	Group						
	Pre-test-Control Group	25	19.24	6.36			
Positive	Pre-test-Research	25	33.60	6.23	-1.00	48	0.322
Affect	Group						
	Pre-test-Control Group	25	35.76	8.81			

**p<0.05 Paired sample t-test*

When we compared the scores obtained from the MM Orientation, MM Record Memory, MM Attention Calculation, MM Recalling, MM Language, Self-Compassion Scale, Positive Affect subscales with the Pre-test-Post-test control scores, no significant difference was found between the mean scores ($p>0.05$). When we compared the scores obtained from the Negative Affect subscale ($t(48)=2.60$, $p<0.05$) according to the Pre-test-Post-test results, a significant difference was found between the averages. When we evaluate the results obtained, it is seen that the scores of the study group are higher than the scores of the control group.

Tablo 4. Comparison of Mini Mental State Test, Positive Negative Affectivity Scale, Self-Compassion Scale Pre-test-Post-test Scores of the Control Group

	n	\bar{X}	Ss.	t	Sd.	p
MM Orientation	25	8.44	2.22	0.15	24	0.881
MM Orientation-Post-test	25	8.36	2.06			
MMKayıt Hafızası-Pre-test	25	2.72	0.46	-1.81	24	0.083
MM Record Memory-Post-test	25	2.84	0.37			
MM Attention Calculation-Pre-test	25	4.32	0.85	0.21	24	0.832
MM Attention Calculation-Post-test	25	4.28	0.79			
MM Recalling-Pre-test	25	2.20	0.87	-1.00	24	0.327
MM Recalling-Post-test	25	2.36	0.64			
MM Language-Pre-test	25	6.92	1.71	0.34	24	0.740
MM Language-Post-test	25	6.80	1.61			
Self-Compassion Scale-Pre-test	25	86.36	12.54	0.86	24	0.399
Self-Compassion Scale-Post-test	25	83.08	13.97			
Negative Affect-Pre-test	25	19.24	6.36	-1.19	24	0.244
Negative Affect-Post-test	25	21.60	9.12			
Positive Affect-Pre-test	25	35.76	8.81	0.75	24	0.461
Positive Affect-Post-test	25	33.76	8.12			

**p<0.05 Paired sample t-test*

When we compared the scores obtained from the MM Orientation, MM Record Memory, MM Attention Calculation, MM Recalling, MM Language, Self-Compassion Scale, Negative Affect, Positive Affect subscales according to the Pre-test-Post-test control scores, no significant difference was found between the averages ($p>0.05$).

Tablo 5. Comparison of the Study Group's Mini Mental State Test, Positive Negative Affect Scale, Self-Compassion Scale Pre-test-Post-test Scores

	n	\bar{X}	Sd.	t	df.	p
MM Orientation	25	8.04	1.90	-0.15	24	0.885
MM Orientation-Post-test	25	8.08	1.63			
MM Record Memory-Pre-test	25	2.80	0.41	-1.00	24	0.327
MM Record Memory-Post-test	25	2.84	0.37			
MM Attention Calculation-Pre-test	25	3.96	1.06	-1.66	24	0.110
MM Attention Calculation-Post-test	25	4.20	0.76			
MM Recalling-Pre-test	25	2.36	0.76	-2.87	24	0.008*
MM Recalling-Post-test	25	2.68	0.48			
MM Language-Pre-test	25	6.52	1.58	-1.51	24	0.143
MM Language-Post-test	25	7.00	1.29			
Self-Compassion Scale-Pre-test	25	81.96	11.62	-5.80	24	0.000*
Self-Compassion Scale-Post-test	25	93.44	9.38			
Negative Affect-Pre-test	25	24.64	8.22	4.18	24	0.000*
Negative Affect-Post-test	25	17.88	3.70			
Positive Affect-Pre-test	25	33.60	6.23	-3.34	24	0.003*
Positive Affect-Post-test	25	37.88	4.18			

**p<0.05 Analysis used for the comparison: Paired Sample t-test*

When we compared the scores obtained from the MM Orientation, MM Record Memory, MM Attention Calculation and MM Language subscales according to the pretest-posttest scores, no significant difference was found between the averages ($p>0.05$). MM Reminder subscale ($t(24)=-2.87$, $p<0.05$), Self-Compassion Scale ($t(24)=-5.80$, $p<0.05$), Positive Affect subscale ($t(24)=-$

3.34, $p < 0.05$) when comparing the scores obtained according to the pretest-posttest results, a significant difference was found between the averages. When we evaluate the results obtained, it is seen that the post-test scores are higher than the pre-test study scores. When we compared the scores obtained from the Negative Emotion subscale ($t(24)=4.18$, $p < 0.05$) according to the pretest-posttest results, a significant difference was found between the averages. When we evaluate the results obtained, it is seen that the pre-test scores are higher than the post-test study scores.

Discussion and Results

This study aims to test the effectiveness of art therapy activities on increasing self-compassion, positive affect, and cognitive functions of elderly individuals. It was determined that the elderly individuals who participated in the art therapy program had a statistically significant increase in their positive affect and self-compassion levels compared to those who did not participate in this program. There was no significant difference in the results of the Mini Mental Test applied to determine their cognitive levels, except for the sub-dimension of recall. In addition, a decrease was found in the negative emotion levels of the study group participants after the art therapy program. When the pre-test and post-test (Mini-Mental Test, Positive Negative Affect Scale, Self-Compassion Scale) scores of the control group of the study were compared, no statistically significant difference was found. These results support the purpose of the research.

One of the important findings of the study is that the positive affect levels of the elderly individuals increase, and their negative affect levels decrease after the art therapy program. Art therapy offers older people opportunities for self-reflection and interpersonal interactions that allow for the expression of emotions, including nonverbal communication. It also ensures that the participants are happy and gain new skills (Ching-Teng et al., 2019). The inclusion of art in the therapy process supports participation in creative processes by contributing to the therapeutic relationship. Thus, people's well-being levels increase (Gussak, Rosal, 2016). Affect includes short-term emotions, long-term moods, and attitudes (Zimmermann, Mangelsdorf, 2020). Art therapy allows participants to express themselves in different ways than traditional speech therapy (Stukey, Nobel, 2010). When the literature is examined, there are many studies that support the research findings and suggest that art therapy practices increase positive mood and reduce the level of stress and depression (Babouchkina, Robbins, 2015; Eaton, Tieber, 2017; Geue et al., 2010; Drake, Hodge, 2015).

In his study, Kim (2021) found that art therapy based on reminiscence therapy was effective in reducing the level of depression and improving the subjective happiness and interpersonal relationships of elderly individuals with dementia. Art therapy-based practices are effective on traumatic stress, schizophrenia, depression (Cristina, Aneta, 2012), emotional awareness, constructive emotion regulation (Haeyen et al., 2015) and healing process (Wahlbeck et al., 2018).

Another finding of the study is that there was no significant difference in the cognitive levels of the participants. Contrary to this result, there are studies in the literature reporting that art therapy practices contribute to preventing cognitive decline (Mahendran et al., 2018; Lee et al., 2019; Kim, 2021). The possible explanation for this situation may be the short duration of the application of art therapy. Psychosocial interventions within the scope of art therapy provide cognitive stimulation in participants. It is thought that similar results can be obtained in longer-term programs. Because structured art therapy practices provide benefits in elderly individuals with mild cognitive impairment (Lee et al., 2019; Wang, Li, 2016). In addition, art therapy increases the well-being and life satisfaction of individuals diagnosed with dementia (Webb, 2020). Art therapy not only contributes cognitively but also contributes to the increase of physical and mental well-being of individuals (Khadar et al., 2013).

The fact that an individual is more accepting and understanding in his internal communication in the face of negative life events in his life is an indicator of self-compassion. In other words, individuals with a high level of self-compassion have higher awareness and understanding towards negativities (Neff, 2003). Another important finding of the study is that the self-compassion level of the elderly male participants increased after the art therapy application. Although studies on self-compassion and awareness have increased in recent years, those related to elderly individuals seem to be limited. Art therapy practices support the development of self-awareness and ego-strength (Holmqvist et al., 2017). Awareness and self-compassion programs with elderly individuals are beneficial in developing coping strategies and reducing resilience, anxiety and stress levels (Perez-Blasco et al., 2016; Imtiaz, 2016). Mindfulness-based practices are used to manage stress and develop appropriate coping strategies (Weinstein et al., 2009). Difficulties experienced in old age can reduce life satisfaction in the elderly. Self-compassion-based training can increase resilience, well-being and life satisfaction in older individuals (Bijaeyeh et al., 2021; Hashemi, Eyni, 2020; Safara, Salmabadi, 2021).

The results obtained from this study are that art therapy practices are determinative on the well-being of elderly individuals. The study has some limitations as well as promising results. First, the study was conducted only in a certain region and in a single institution. In addition, the lack of follow-up evaluation on the participants is a limitation. Finally, the participants consisted of only male individuals and the data obtained was limited to the qualities measured by the scales used. In line with these limitations, it is recommended that the research be conducted in larger samples, in different cultures and by ensuring gender equality. In addition, studies that will involve not only the elderly living in long-term care homes but also in the community will be more inclusive. With aging, well-being and quality of life may decrease depending on many factors. Therefore, comprehensive assessments will help us identify the factors associated with it. Such studies can contribute to the strategies to be developed to improve the quality of life of the increasing elderly population in terms of guidance.

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References

- Abraham, R. (2005). *When words have lost their meaning: Alzheimer's patients communicate through art*. Praeger Publishers/Greenwood Publishing Group.
- Alders, A., & Levine-Madori, L. (2010). The effect of art therapy on cognitive performance of Hispanic/Latino older adults. *Art Therapy, 27*(3), 127-135.
- Babouchkina, A., & Robbins, S. J. (2015). Reducing negative mood through mandala creation: A randomized controlled trial. *Art Therapy, 32*(1), 34-39.
- Bijaeyeh, J. S. A., Majdi, M. A., Ghamari, M., & Aghdam, G. F. (2021). The Effectiveness of the Self-Compassion Training on Life Satisfaction and Resilience in the Elderly Women. *Aging Psychology, 7*(1).
- Buchalter, S. (2011). *Art therapy and creative coping techniques for older adults*. Jessica Kingsley Publishers.
- Case, C., & Dalley, T. (2006). The therapy in art therapy. *The Handbook of Art Therapy*.

Castora-Binkley, M., Noelker, L., Prohaska, T., & Satariano, W. (2010). Impact of arts participation on health outcomes for older adults. *Journal of Aging, Humanities, and the Arts*, 4(4), 352-367.

Ching-Teng, Y., Ya-Ping, Y., & Yu-Chia, C. (2019). Positive effects of art therapy on depression and self-esteem of older adults in nursing homes. *Social work in health care*, 58(3), 324-338.

Cohen, G. D., Perlstein, S., Chapline, J., Kelly, J., Firth, K. M., & Simmens, S. (2006). The impact of professionally conducted cultural programs on the physical health, mental health, and social functioning of older adults. *The Gerontologist*, 46(6), 726-734.

Coşkun, S., Yıldız, Ö., ve Yazıcı, A. (2010). Psikiyatrik rehabilitasyonda fotoğrafın kullanımı: Bir Ön Proje. *Psikiyatri Hemşireliği Dergisi*, 1(3), 121-127.

Cristina, C., & Aneta, F. (2012). How can we improve the existing assessments used in arttherapy. A meta-analysis on art therapy assesments. *Procedia-Social and Behavioral Sciences*, 33, 358-362.

Çınar, M. N. (2019). *Sanat uygulamalarına dayalı psiko-eğitim programının psikolojik sağlık üzerine etkisi* (Master's thesis, Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü).

Degges-White, S., & Davis, N. L. (Eds.). (2017). *Integrating the expressive arts into counseling practice: Theory-based interventions*. Springer Publishing Company.

Demir, V. (2017). Dışavurumcu sanat terapisinin psikolojik belirtiler ile bilişsel işlevlere etkisi. *OPUS – Uluslararası Toplum Araştırmaları Dergisi*, 7(13), 575-598.

Demir, V. (2018). Sanatla Terapi Programının Bireylerin Kaygı, Sosyal Kaygı ve Sağlık Kaygısı Düzeyleri Üzerine Etkisi. *International Journal of Social Science*, 1(2), 223-234.

Demir, V. ve Yıldırım, B. (2017). Sanatla Terapi Programının Üniversite Sınavına Hazırlanan Öğrencilerin Depresyon, Anksiyete ve Stres Belirti Düzeylerine Etkililiği. *Ege Eğitim Dergisi* (18)1, 311-344.

Deniz, M., Kesici, Ş., & Sümer, A. S. (2008). The validity and reliability of the Turkish version of the Self-Compassion Scale. *Social Behavior and Personality: an international journal*, 36(9), 1151-1160.

Drake, J. E., & Hodge, A. (2015). Drawing versus writing: The role of preference in regulating short-term affect. *Art Therapy*, 32(1), 27-33.

Eaton, J., & Tieber, C. (2017). The effects of coloring on anxiety, mood, and perseverance. *Art Therapy*, 34(1), 42-46.

Eracar, N. (2013). *Sözden Öte*. İstanbul: 3P Yayıncılık.

Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). "Mini-mental state": a practical method for grading the cognitive state of patients for the clinician. *Journal of psychiatric research*, 12(3), 189-198.

Gençöz, T. (2000). Pozitif ve Negative Affect ölçeği: Geçerlik ve güvenilirlik çalışması. *Türk Psikoloji Dergisi*, 15(46), 19-26.

Geue, K., Goetze, H., Buttstaedt, M., Kleinert, E., Richter, D., & Singer, S. (2010). An overview of art therapy interventions for cancer patients and the results of research. *Complementary therapies in medicine*, 18(3-4), 160-170.

Gussak, D. E., & Rosal, M. L. (Eds.). (2015). *The Wiley handbook of art therapy*. John Wiley & Sons.

Güner ve Genç. (2019). *Sanat Terapisi*. İzmir: Yakın Kitabevi.

Güngen, C., Ertan, T., Eker, E., Yaşar, R., & Engin, F. (2002). Standardize mini mental test'in Türk toplumunda hafif demans tanısında geçerlik ve güvenilirliği. *Türk Psikiyatri Dergisi*, 13(4), 273-281.

Haeyen, S., Van Hooren, S., & Hutschemaekers, G. (2015). Perceived effects of art therapy in the treatment of personality disorders, cluster B/C: A qualitative study. *The Arts in Psychotherapy*, 45, 1-10.

Hashemi, Z., & Eyni, S. (2020). Perceived stress in the elderly: The role of spiritual intelligence, self-compassion, and psychological hardiness. *Aging Psychology*, 5(4), 289-299.

Hattori, H., Hattori, C., Hokao, C., Mizushima, K., & Mase, T. (2011). Controlled study on the cognitive and psychological effect of coloring and drawing in mild Alzheimer's disease patients. *Geriatrics & gerontology international*, 11(4), 431-437.

Holmqvist, G., Roxberg, Å., Larsson, I., ve Lundqvist-Persson, C. (2017). What art therapists consider to be patient's inner change and how it may appear during art therapy. *The arts in psychotherapy*, 56, 45-52.

Imtiaz, S. (2016). Rumination, optimism, and psychological well-being among the elderly: Self-compassion as a predictor. *Journal of Behavioural Sciences*, 26(1), 32.

Karasar, N. (2014). *Bilimsel araştırma yöntemi*. (26.baskı). Ankara Nobel Yayınevi.

Khadar, M. G., Babapour, J., & Sabourimoghaddam, H. (2013). The effect of art therapy based on painting therapy in reducing symptoms of oppositional defiant disorder (ODD) in elementary school boys. *Procedia-Social and Behavioral Sciences*, 84, 1872-1878.

Kim, G. H. (2021). Effects Of Collective Art Therapy on The Depression, Communication, Self-Efficacy, and the Subjective Happiness of the Elderly with Dementia. *Industry Promotion Research*, 6(4), 59-68.

- Kim, S. K. (2013). A randomized, controlled study of the effects of art therapy on older Korean-Americans' healthy aging. *The Arts in Psychotherapy, 40*(1), 158-164.
- Koldaş, Z. L. (2017). What is aging and cardiovascular aging? *Turk Kardiyol Dern Ars 2017;45 Suppl 5: 1-4 doi: 10.5543/tkda.2017.40350*
- Lee, R., Wong, J., Shoon, W. L., Gandhi, M., Lei, F., Kua, E. H., ... & Mahendran, R. (2019). Art therapy for the prevention of cognitive decline. *The Arts in Psychotherapy, 64*, 20-25.
- Mahendran, R., Gandhi, M., Moorakonda, R. B., Wong, J., Kanchi, M. M., Fam, J., ... & Kua, E. H. (2018). Art therapy is associated with sustained improvement in cognitive function in the elderly with mild neurocognitive disorder: findings from a pilot randomized controlled trial for art therapy and music reminiscence activity versus usual care. *Trials, 19*(1), 1-10.
- Malchiodi, C. A. (2005). Expressive Therapies History, Theory, and Practice. In C.A. Malchiodi (Ed.), *Expressive Therapies* (pp.1-15). Newyork: Guilford press.
- McCaffrey, R., Liehr, P., Gregersen, T., & Nishioka, R. (2011). Garden walking and art therapy for depression in older adults: a pilot study. *Research in gerontological nursing, 4*(4), 237-242.
- Mimica, N., & Kalinić, D. (2011). Art therapy may be beneficial for reducing stress-related behaviours in people with dementia-case report. *Psychiatria Danubina, 23*(1.), 125-128.
- Mitrečić, D., Juraj Petrović, D., Stančin, P., Isaković, J., Zavan, B., Tricarico, G., ... & Di Luca, M. (2020). How to face the aging world—lessons from dementia research. *Croatian Medical Journal, 61*(2), 139-146.
- Neff, K. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and identity, 2*(2), 85-101.
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and identity, 2*(3), 223-250.
- Paskaleva, R., & Uzunova, A. (2015). Role of art therapy for psycho-emotional and physical stimulation of the elderly. *Research in Kinesiology, 43*(2), 239-241.
- Perez-Blasco, J., Sales, A., Meléndez, J. C., & Mayordomo, T. (2016). The effects of mindfulness and self-compassion on improving the capacity to adapt to stress situations in elderly people living in the community. *Clinical Gerontologist, 39*(2), 90-103.
- Rabin, M. (2003). *Art therapy and eating disorders: The self as significant form*. Columbia University Press.
- Rusted, J., Sheppard, L., & Waller, D. (2006). A multi-centre randomized control group trial on the use of art therapy for older people with dementia. *Group Analysis, 39*(4), 517-536.
- Safar, L. T., & Press, D. Z. (2011). Art and the brain: Effects of dementia on art production in art therapy. *Art Therapy, 28*(3), 96-103.

- Safara, M., & Salmabadi, M. (2021). Psychological Well-Being in the Elderly: The Role of Self-Compassion and Alexithymia. *Aging Psychology, 7*(1).
- Shore, A. (1997). Promoting wisdom: The role of art therapy in geriatric settings. *Art Therapy, 14*(3), 172-177.
- Shostak, B., DiMaria, A., Salant, E., Schoebel, N., Bush, J., Minar, V., ve Pollakoff, L. (1985). "Art Therapy in the Schools" A Position Paper of the American Art Therapy Association. *Art Therapy, 2*(1), 19-21.
- Stallings, J. W. (2010). Collage as a therapeutic modality for reminiscence in patients with dementia. *Art Therapy, 27*(3), 136-140.
- Stevenson, M., & Orr, K. (2013). Art therapy: stimulating non-verbal communication. *Nursing & Residential Care, 15*(6), 443-445.
- Stewart, E. G. (2004). Art therapy and neuroscience blend: Working with patients who have dementia. *Art therapy, 21*(3), 148-155.
- Stuckey, H. L., & Nobel, J. (2010). The connection between art, healing, and public health: A review of current literature. *American journal of public health, 100*(2), 254-263.
- Turetsky, CJ ve Hays, RE (2003). Orta yaşta çözülmemiş yasın önlenmesi ve tedavisi için bir sanat psikoterapi modelinin geliştirilmesi. *Sanat Terapisi , 20* (3), 148-156.
- Wahlbeck, H., Kvist, L. J., & Landgren, K. (2018). Gaining hope and self-confidence—An interview study of women's experience of treatment by art therapy for severe fear of childbirth. *Women and Birth, 31*(4), 299-306.
- Wald, J. (1983). Alzheimer's disease and the role of art therapy in its treatment. *American Journal of Art Therapy, 22*(2), 165–175.
- Wald, J. (1984). The graphic representation of regression in an Alzheimer's disease patient. *The Arts in Psychotherapy, 2*, 165–175.
- Wald, J. (1986). Art therapy for patients with dementing illnesses. *Clinical Gerontologist, 4*(3), 29–40.
- Wald, J. (1989). Art therapy for patients with Alzheimer's disease and related disorders. In H. Wadeson, J. Durkin, & D. Perach (Eds.), *Advances in art therapy* (pp. 207–221). New York: Wiley
- Wang, Q. Y., & Li, D. M. (2016). Advances in art therapy for patients with dementia. *Chinese Nursing Research, 3*(3), 105-108.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology, 54*(6), 1063.

Webb, A. (2020). *Art Therapy for Older Adults with Dementia: Heuristic Reflection and Strategy of Clinical Practice* (Doctoral dissertation).

Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the effects of mindfulness on stress attribution, coping, and emotional well-being. *Journal of research in personality*, 43(3), 374-385.

Zimmermann, N., & Mangelsdorf, H. H. (2020). Emotional benefits of brief creative movement and art interventions. *The Arts in Psychotherapy*, 70, 101686.