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

**Zeynep GÜMÜŞ DEMİR**[1]
Uskudar University FHSS, Psikoloji Bölümü, İstanbul, Türkiye, zeynep.gumus@uskudar.edu.tr,
ORCID: 0000-0003-4474-4813

**Volkan DEMİR**[2]
Uskudar University, ISS / Applied Psychology, volkan.demir@uskudar.edu.tr,
ORCID: 0000-0002-8148-8647

**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 ($p>0,05$). 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** | **None** | 21 | 84.0% | 23 | 92.0% | 44 | 88,0% |
| **Disorder** | **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 Memory** | Pre-test-Research Group | 25 | 2.80 | 0.41 | 0.65 | 48 | 0.518 |
| | Pre-test-Control Group | 25 | 2.72 | 0.46 | | | |
| **MM Attention Calculation** | Pre-test-Research Group | 25 | 3.96 | 1.06 | -1.32 | 48 | 0.192 |
| | Pre-test-Control Group | 25 | 4.32 | 0.85 | | | |
| **MM Recalling** | Pre-test-Research Group | 25 | 2.36 | 0.76 | 0.70 | 48 | 0.490 |
| | Pre-test-Control Group | 25 | 2.20 | 0.87 | | | |
| **MM Language** | Pre-test-Research Group | 25 | 6.52 | 1.58 | -0.86 | 48 | 0.395 |
| | Pre-test-Control Group | 25 | 6.92 | 1.71 | | | |
| **Self-Compassion Scale** | Pre-test-Research Group | 25 | 81.96 | 11.62 | -1.29 | 48 | 0.204 |
| | Pre-test-Control Group | 25 | 86.36 | 12.54 | | | |
| **Negative Affect** | Pre-test-Research Group | 25 | 24.64 | 8.22 | 2.60 | 48 | 0.012* |
| | Pre-test-Control Group | 25 | 19.24 | 6.36 | | | |
| **Positive Affect** | Pre-test-Research Group | 25 | 33.60 | 6.23 | -1.00 | 48 | 0.322 |
| | 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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