

# A Study to Assess the Effect of Art Therapy on Cognition and Psychological Wellbeing Among Old Age People in Selected Old Age Homes

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*Received: 28<sup>th</sup> Feb, 2026; Revised: 6<sup>th</sup> March 2026; Accepted: 7<sup>th</sup> April, 2026; Available Online: 20<sup>th</sup> April, 2026*

## ABSTRACT

**Introduction:** Aging is often accompanied by cognitive decline and psychological challenges, including depression, anxiety, and social isolation (World Health Organization, 2020). As the global population of elderly individuals continues to grow, innovative interventions are being explored to enhance their overall well-being. One such approach is art therapy, which has gained increasing attention for its potential in fostering cognitive and emotional health.

**Aims of the Study:** to assess the effect of art therapy on cognition and psychological wellbeing among old age people in selected old age homes.

**Methodology:** The study adopted a quantitative approach with a pre-experimental one-group pretest–posttest design to assess cognition and psychological well-being among elderly individuals in selected old age homes. A total of 50 participants aged 60 years and above were selected using purposive sampling. Data were collected using demographic variables, the Montreal Cognitive Assessment (MoCA) scale, and a psychological well-being scale. After obtaining consent, a pretest was conducted, followed by art therapy intervention, and a posttest after 15 days. Data were analysed using appropriate statistical methods.

**Results:** The study showed significant improvement in cognition and psychological well-being among elderly individuals after art therapy. The mean cognitive score difference was 12.36 ( $t=27.428$ ) and psychological well-being difference was 7.30 ( $t=22.302$ ). In both cases, the null hypothesis was rejected. These findings indicate that art therapy effectively enhances cognitive functioning and psychological well-being, making it a valuable supportive intervention in elderly care settings.

**Conclusion:** The study concludes that art therapy is effective in significantly improving cognition and psychological well-being among elderly individuals in old age homes. Hence, it can be used as a beneficial supportive intervention for promoting mental health in the elderly.

**Keywords:** assess, effect, art therapy, cognition, psychological wellbeing, old age people, old age homes.

**How to cite this article:** Darade SJ, Athawale S. A Study to Assess the Effect of Art Therapy on Cognition and Psychological Wellbeing Among Old Age People in Selected Old Age Homes. *Int J Drug Deliv Technol.* 2026;16(56s): 1417-1421. DOI: 10.25258/ijddt.16.56s.155

**Source of support:** Nil.

**Conflict of interest:** None

## INTRODUCTION

Aging is often accompanied by cognitive decline and psychological challenges, including depression, anxiety, and social isolation. Art therapy integrates creative expression with psychological support, enabling older adults to communicate their emotions, enhance cognitive functioning, and improve social interaction.<sup>1</sup>

Art therapy has gained recognition as a beneficial intervention for enhancing the cognitive and psychological well-being of elderly individuals residing in old age homes. Engaging in creative activities such as painting, drawing, and sculpting offers these residents opportunities for self-expression, mental stimulation, and emotional relief. Studies have shown that art therapy can improve

cognitive functions, including memory and problem-solving skills, while reducing symptoms of depression and anxiety.<sup>2</sup>

Research indicates that structured art therapy programs can result in measurable cognitive benefits for older adults. For instance, a randomized controlled trial examining the effects of a Creative Expressive Arts-based Storytelling program found significant cognitive improvements among participants with mild cognitive impairment.<sup>3</sup>

Beyond cognitive enhancements, art therapy plays a crucial role in improving the psychological well-being of seniors in long-term care settings. Engagement in artistic endeavours provides a sense of accomplishment and purpose, which can elevate self-esteem and combat

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feelings of loneliness and isolation. Moreover, group art sessions encourage social interaction, fostering a sense of community among residents.<sup>4</sup>

With aging often associated with cognitive decline, emotional isolation, and reduced social interactions, art therapy offers a holistic means of addressing these challenges.<sup>5</sup> In elderly populations, cognitive impairments such as memory loss, reduced attention span, and difficulties in problem-solving are common.<sup>6</sup>

Group art sessions foster social interactions, enhancing feelings of belonging and community. Additionally, the sense of accomplishment derived from creating art boosts self-esteem and overall life satisfaction. These psychological benefits highlight the significance of incorporating art therapy into elderly care programs to enhance mental health and emotional well-being.<sup>7</sup>

### NEED OF THE STUDY

With the global increase in the aging population, the prevalence of cognitive decline and psychological distress among old age people individuals residing in old age homes is on the rise. Cognitive impairments, including memory loss and decreased executive function, significantly impact the quality of life and independence of older adults.<sup>8</sup>

A significant gap exists in the availability of structured art therapy programs that cater specifically to the cognitive and psychological needs of elderly residents. Additionally, most existing studies have focused on short-term interventions, leaving a lack of longitudinal research to evaluate the sustained impact of art therapy on cognitive decline and mental health. Investigating the long-term benefits and identifying effective therapeutic modalities can contribute to the development of evidence-based practices in geriatric care.<sup>9</sup>

The majority of research on art therapy's impact on elderly well-being has been conducted in Western contexts, with limited studies exploring its applicability in diverse cultural settings. Understanding how cultural perceptions of aging, art, and therapy influence outcomes is essential for designing culturally sensitive programs

that enhance the well-being of elderly residents globally. Therefore, this study aims to bridge these research gaps by exploring the cognitive and psychological benefits of art therapy among elderly individuals in old age homes, contributing to a more comprehensive understanding of its therapeutic potential.<sup>10</sup>

With the growing elderly population, cognitive decline and poor psychological well-being are increasing concerns, particularly in old age homes where isolation is common. From the researcher's perspective, there is a need for simple, non-pharmacological, and cost-effective interventions to improve elderly health. Art therapy is a promising method that may enhance cognition and emotional well-being. However, limited evidence exists in this area, prompting the researcher to select this study to evaluate its effectiveness and support its use in elderly care settings.

### MATERIALS AND METHODS

The present study adopted a quantitative research approach with a pre-experimental descriptive (one-group pretest–posttest) design to assess cognition and psychological well-being among elderly individuals in selected old age homes. The population comprised individuals aged 60 years and above with low cognition and poor psychological well-being. A sample of 50 participants was selected using purposive sampling based on defined inclusion and exclusion criteria. Data were collected using a structured tool including demographic variables, the Montreal Cognitive Assessment (MoCA) scale and a psychological well-being scale. Content validity was established through expert review, and a pilot study on 10 samples confirmed feasibility. After obtaining formal permission and informed consent, pretest data were collected, followed by art therapy intervention, and posttest assessment was conducted after 15 days. Data were then analysed using appropriate statistical methods.

### RESULTS

#### SECTION-I Demographic data of the sample.

**Table No.1** Frequency and percentage distribution of Samples according to their Age, Gender, Religion, Education, Family type, Marital Status, Number of Children, Duration of Stay and residing with spouse in old age home. n=50

Demographic Variables	Frequency	Percent
<b>I. Age</b>	23	46.0
a. 61 - 70 yrs	23	46.0
b. 71 - 80 yrs	4	8.0
c. 81 - 90 yrs		
<b>II. Gender</b>	17	34.0
a. Female	33	66.0
b. Male		
<b>III. Religion</b>	44	88.0
a. Hindu	3	6.0
b. Christian	1	2.0
c. Muslim	2	4.0
d. Others		

<b>IV. Education</b>	1	2.0
a. Graduate and above	7	14.0
b. Higher Secondary education	28	56.0
c. Illiterate	9	18.0
d. Primary education	5	10.0
e. Secondary education		
<b>V. Family Type</b>	7	14.0
a. Joint	43	86.0
b. Nuclear		

The demographic data of the sample (n=50) reveals that most participants were in the age group of 61–70 years and 71–80 years (46% each), while only 8% were aged 81–90 years. The majority were male (66%) compared to females (34%). Most participants belonged to the Hindu religion (88%), with very few from Christian (6%), Muslim (2%), and other religions (4%). In terms of education, more than half were illiterate (56%), while others had primary (18%), secondary (10%), higher

secondary (14%), and very few were graduates (2%). The majority of the elderly belonged to nuclear families (86%), whereas only 14% were from joint families.

## Section-II Description of mean cognitive and psychological scores of the old age People

### a. Description of mean Cognitive and Psychological scores of the Old age people before and after Intervention.

**Table 2.** Mean, Standard Deviation, and Standard error of psychological wellbeing scores before and after intervention among old aged people residing in selected old age homes of Mumbai city N = 50

		Mean	Std. Deviation	Std. Error Mean	Mean Diff	% Change
<b>Psychological well-being Score</b>	<b>Pre-Test</b>	11.94	1.42	0.201	7.30	61.14%
	<b>Post Test</b>	4.64	1.96	0.27		
<b>Cognitive functioning</b>	<b>Pre-Test</b>	13.60	2.109	0.298	-12.36	90.88%
	<b>Post Test</b>	25.96	2.231	0.316		

The findings from Table 2 indicate a significant improvement in both psychological well-being and cognitive functioning among old age individuals after the intervention (N = 50). The mean psychological well-being score decreased from  $11.94 \pm 1.42$  (SE = 0.201) in the pre-test to  $4.64 \pm 1.96$  (SE = 0.27) in the post-test, showing a mean difference of 7.30 and a 61.14% improvement, suggesting better psychological status after the intervention. Similarly, the mean cognitive functioning score increased markedly from  $13.60 \pm 2.109$  (SE = 0.298) to  $25.96 \pm 2.231$  (SE = 0.316), with a mean

difference of -12.36 and a 90.88% improvement, indicating a substantial enhancement in cognitive abilities. Overall, these results demonstrate that the intervention was highly effective in improving both psychological well-being and cognitive functioning among the elderly population.

### b. Comparison of the Old aged people's level of cognition using paired – t-test before and after Intervention.

**Table No.3:** Comparison of the Old aged people's level of cognition N=50

		Mean	Std. Deviation	Std. Error Mean	Mean Diff	% Change	Paired t Test	P Value
<b>Cognition Score</b>	<b>Pre-Test</b>	13.60	2.109	0.298	-12.36	90.88%	27.428	0.001
	<b>Post Test</b>	25.96	2.231	0.316				

The results in Table No.3 show a statistically significant improvement in the level of cognition among old aged people after the intervention (N = 50). The mean cognition score increased from  $13.60 \pm 2.109$  (SE = 0.298) in the pre-test to  $25.96 \pm 2.231$  (SE = 0.316) in the post-test, with a mean difference of -12.36 and a 90.88% improvement. The calculated paired *t* value ( $t = 27.428$ ) is very high, and the *p* value ( $p = 0.001$ ) is less than 0.05,

indicating that the difference observed is statistically highly significant. Therefore, it can be concluded that the intervention was effective in significantly enhancing cognitive function among the elderly participants.

### c. Comparison of the Old aged people's level of Psychological functioning using Paired t-test before and after Intervention.

**Table No.04** Comparison of the Old aged people's level of psychological functioning N=50

	Mean	Std. Deviation	Std. Err	Mean Diff	% Change	Paired t Test	P Value
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				<b>or Mean</b>				
<b>Psychological well-being Score</b>	<b>Pre-Test</b>	11.94	1.42	0.201				0.001 Significant
	<b>Post-Test</b>	4.64	1.96	0.27	7.30	61.14%	22.302	

The results presented in Table 4 indicate a statistically significant improvement in the psychological functioning of old aged people after the intervention (n = 50). The mean psychological well-being score decreased from  $11.94 \pm 1.42$  (SE = 0.201) in the pre-test to  $4.64 \pm 1.96$  (SE = 0.27) in the post-test, with a mean difference of 7.30 and a 61.14% improvement, suggesting better psychological well-being following the intervention. The calculated paired *t* value ( $t = 22.302$ ) is notably high, and the *p* value ( $p = 0.001$ ) is less than 0.05, indicating that the observed difference is statistically highly significant. Therefore, it can be concluded that the intervention was effective in significantly improving the psychological well-being of the elderly participants.

### DISCUSSION

The present study findings indicate that art therapy was highly effective in improving both cognitive functioning and psychological well-being among elderly individuals residing in old age homes in Mumbai. The mean cognitive score increased significantly from 13.60 ( $\pm 2.10$ ) in the pre-test to 25.96 ( $\pm 2.23$ ) in the post-test, while the psychological well-being score improved with a reduction from 11.94 ( $\pm 1.42$ ) to 4.64 ( $\pm 1.96$ ). The calculated paired *t*-test values for cognition ( $t = 27.428$ ,  $p = 0.001$ ) and psychological well-being ( $t = 22.302$ ,  $p = 0.001$ ) confirmed that these changes were statistically highly significant. These results clearly suggest that art therapy had a strong positive impact on enhancing mental abilities and emotional health among the elderly population.

The findings of the present study are consistent with the study conducted by Ozge Demirel and Oya Sevcan Orak, which examined the effect of art therapy on cognitive status and psychological well-being among elderly individuals in institutional care. Their randomized controlled study reported a statistically significant improvement in both cognitive and psychological outcomes in the experimental group compared to the control group ( $P < 0.001$ ). They also reported moderate effect sizes ( $\eta^2 = 0.52$  for cognitive status and  $\eta^2 = 0.75$  for psychological well-being), indicating that art therapy produced meaningful improvements in both domains.<sup>9</sup>

Both studies emphasize that elderly individuals living in institutional settings are more prone to cognitive decline and psychological distress, and thus require supportive, non-pharmacological interventions. Art therapy, as demonstrated in both studies, serves as an effective therapeutic approach by promoting self-expression, emotional release, and mental stimulation.

In conclusion, the present study findings are in agreement with existing literature and provide strong evidence that art therapy is an effective intervention for improving

cognitive functioning and psychological well-being among elderly individuals in institutional care settings.

### CONCLUSION

The study aimed to evaluate the effectiveness of art therapy on psychological well-being and cognitive functioning among elderly individuals residing in selected old age homes in Mumbai city. The conceptual framework of the study was based on Imogene King's Goal Attainment Theory, which emphasizes interaction, perception, and goal-oriented outcomes in improving health status. A pre-experimental one-group pre-test and post-test research design was adopted for the study. The study population consisted of elderly residents from selected old age homes, and a total of 50 participants were chosen using a stratified random sampling technique.

Prior to data collection, the research tool was validated by 15 experts from various fields to ensure its reliability and accuracy. The data collection period extended from 7th November 2024 to 3rd December 2024. Initially, a feasibility survey was conducted in the selected settings. Participants were then selected based on predefined inclusion and exclusion criteria, and informed consent was obtained after explaining the purpose of the study and assuring confidentiality.

Baseline data were collected using a structured tool, followed by the implementation of art therapy sessions for a duration of 15 days. On completion of the intervention, a post-test assessment was conducted on the 15th day. The collected data were analyzed using both descriptive and inferential statistics. The paired *t*-test was applied to determine the significance of differences in mean psychological well-being and cognitive functioning scores before and after the intervention, thereby assessing the effectiveness of art therapy.

### DECLARATION BY AUTHORS

**Ethical Approval:** The study was approved by the institutional ethics committee of K. J. Somaiya College of Nursing, Sion East, Mumbai. The study participants were briefed about the purpose and nature of the study and written informed consent was obtained before data collection.

**Acknowledgement:** The authors thank all research participants, government health authorities and community health representatives in their respective areas.

**Source of Funding:** There is no funding Source for this study.

**Conflict of Interest:** The authors declare no conflict of interest.

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