

The Impact of Painting Therapy on Alleviating Anxiety and Enhancing Emotional Expression in Alzheimer's Patients

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Abstract: Individuals with Alzheimer's disease often experience heightened anxiety and emotional challenges that significantly affect their quality of life and exacerbate cognitive decline. While traditional medications are essential, they often fall short in addressing anxiety-related mood disturbances. Recently, non-pharmacological interventions, particularly creative expression through painting, have shown promise as supportive therapies. This study explores the potential of painting therapy to reduce anxiety and enhance emotional well-being in Alzheimer's patients. Over a seven-week period, a structured painting therapy program was conducted with weekly 50-minute sessions to provide a safe space for emotional expression. The findings suggest that painting activities enabled participants to reconnect with memories, express emotions, and improve self-awareness, contributing positively to their emotional resilience and engagement. However, limitations such as the small sample size and reliance on subjective assessments highlight the need for further research with larger samples and quantitative measures. Future studies could compare the effects of various art therapies, such as music or dance, to better understand their potential in dementia care and cognitive preservation.

Keywords: Alzheimer's disease, painting therapy, anxiety reduction, emotional expression, non-pharmacological intervention.

1. Introduction

People with cognitive disorders, such as Alzheimer's disease, often face heightened levels of anxiety and related psychological challenges, which can severely impact their quality of life. Anxiety can worsen cognitive symptoms, contributing to mood instability and disruptions in daily functioning. While traditional medical treatments remain essential, they frequently lack effective methods to address these mood disturbances, especially those related to anxiety [1]. As cognitive function declines, emotional regulation becomes increasingly difficult for individuals with Alzheimer's, as they gradually lose the ability to process and manage emotions effectively. Recently, non-pharmacological approaches, particularly creative expression through activities like painting, have shown promising results in supporting emotional well-being. Painting provides an alternative mode of expression that can instill a sense of accomplishment and help reduce anxiety [2].

This study will investigate the potential of painting as a therapeutic intervention aimed at reducing anxiety and decelerating cognitive decline in individuals with Alzheimer's. A seven-week painting therapy program will be conducted, with sessions held weekly for 50 minutes from October 14 to

November 25, 2023. These structured sessions are designed to promote emotional expression and connection, guiding patients through various artistic exercises in a safe, supportive environment. By engaging in these creative activities, this study aims to assess the impact of painting on mood and anxiety, offering insights into how such interventions can contribute to emotional and cognitive health. Specifically, this research seeks to understand how drawing activities can help reduce anxiety levels and improve emotional well-being in people with Alzheimer's.

2. Literature Review

2.1. Relationship between cognitive impairment and anxiety

Anxiety and depression are common in patients with mild cognitive impairment (MCI), and have become an important factor affecting the quality of life and disease progression in this population. Domestic and foreign research results show that the incidence of anxiety symptoms in MCI patients ranges from 10% to 74%, while the incidence of depressive symptoms ranges from 6.1% to 63.3%. Anxiety and depression not only affect patients' daily functions, but may also accelerate the further decline of cognitive function [3]. The Beijing Aging Longitudinal Study conducted a comprehensive door-to-door survey among residents aged 55 and above across three Beijing regions, employing a stratified random sampling approach. This survey highlighted the prevalence of depressive symptoms in the elderly population, revealing an overall incidence of 13.5%. Notably, the findings showed a significantly higher occurrence of depressive symptoms in individuals with mild cognitive impairment (MCI), suggesting that MCI patients are more susceptible to experiencing depression. This correlation points to a potential link between cognitive decline and an increased vulnerability to mood disturbances among older adults [4]. In addition, Solfrizzi et al. followed up 2,963 elderly people aged 55 and above for three and a half years in the Italian Aging Longitudinal Study. The study identified that 139 out of 2,963 participants developed mild cognitive impairment (MCI). Among these individuals, the incidence of depressive symptoms reached 63.3%, a rate significantly higher than that observed in the general elderly population. This finding underscores the pronounced susceptibility to depression among MCI patients, highlighting the strong association between cognitive decline and increased depressive symptoms in aging individuals [5]. This finding supports the high risk of coexistence of MCI and depressive symptoms, suggesting that emotional management of MCI patients in the aging population may help slow the progression of cognitive decline. Also, other studies have further revealed the close relationship between mild cognitive impairment (MCI) patients and depressive symptoms. Research indicates that as early pathological changes begin in the brains of patients with mild cognitive impairment (MCI), neuropsychiatric symptoms are likely to emerge. These symptoms often include mood swings, perceptual disturbances, and thought disorders, which not only impact patients' mental health but can also accelerate cognitive decline and increase the challenges of daily living. Consequently, these neuropsychiatric issues contribute to a more rapid deterioration in cognitive function and place a significant burden on patients' daily lives.

For example, Baiyewu et al. investigated 21 normal elderly people, 34 dementia patients, and 53 MCI patients in a study in Nigeria, and evaluated the relationship between their psychiatric and behavioral symptoms and physical and perceptual dysfunction. The study found that the incidence of psychiatric and behavioral symptoms was closely related to the patient's physical condition (such as severe arthritis, impaired vision, etc.), and was also significantly correlated with their daily living activities and cognitive level [6]. This suggests that depression and other psychiatric symptoms in MCI patients are not only related to pathological changes in the brain, but are also affected by physiological and functional factors.

2.2. Analysis of the advantages of painting for emotional management

Non-pharmacological interventions in dementia care have gained increasing attention due to their minimal side effects and ability to offer holistic support for both the physical and mental well-being of patients. These approaches provide multi-dimensional benefits, addressing emotional, cognitive, and social needs, which can enhance overall quality of life without the risks associated with medication. At present, non-drug therapies such as music therapy, horticultural therapy and art therapy have been widely used in the care of patients with dementia. Among them, painting creation as a unique art therapy has also shown significant effects in dementia intervention. In the book "The Interpretation of Dreams", Freud first mentioned the concept of subconsciousness, believing that a person may reveal some forgotten or suppressed expressions and symbols through dreams or artistic creations. Jung further studied the subconscious and proposed the concept of "collective unconsciousness". Freud and Jung both paid attention to the symbolic characteristics of art, and would encourage the consulting subjects to express their dreams or emotions that they could not express in words through art such as painting. In other words, engaging in painting can enable patients to express unspoken emotions while also stimulating coordination between visual and motor perception. Through the use of colors and images, painting activities encourage personal emotional expression, helping to reduce anxiety and fostering a sense of self-awareness and cognitive engagement. As a more personalized intervention method, painting can activate the creative potential of patients, bring them psychological pleasure and a sense of accomplishment, and thus help improve the quality of life of patients with dementia and slow down the process of cognitive decline. In recent years, there has been an increasing number of studies related to this topic, and different research results have shown that art therapy can improve participants' self-confidence, coping ability, emotions, cognitive and executive functions, social abilities, and physical functions [7]. Painting can also help patients express their understanding and acceptance of the disease and changes in life, enhance their identification with their own identity and sense of existence, and thus relieve anxiety. Emblada and Mukaetova-Ladinska reviewed studies on art therapy as a non-pharmacological intervention for dementia from 2015 to 2020. Analyzing seventeen studies with 853 participants, they found that 88% showed improvements in well-being, quality of life, BPSD, or cognitive function. Art therapy, especially "in the moment" activities, enhanced communication between patients and caregivers, supported person-centered care, and created a positive, supportive environment for individuals with dementia [8].

3. Methodology

3.1. Research Design

This study plans to relieve the anxiety of patients with Alzheimer's disease through a 7-week painting creation therapy. The therapy activity will be carried out once a week, each lasting 50 minutes, starting from October 14, 2023, and lasting until November 25. In each activity, the patient will be helped to complete the painting creation through action guidance, and the mood assessment will be conducted at the beginning and end of each treatment to intuitively understand the impact of painting creation on the patient's mood and mentality.

3.2. Participants

The subject of the study is an Alzheimer's patient (grandmother), who is about 70 years old, suffers from moderate cognitive impairment, and often shows symptoms such as anxiety and emotional instability. The patient's self-care ability and memory have declined, and memory loss in daily life has a great impact on his mood and cognitive function.

3.3. Intervention Method

Session One: Patients will draw a portrait of someone they are most familiar with, using a variety of art materials. This exercise aims to help them reconnect with the painting process, restoring a sense of familiarity and building confidence in their artistic abilities.

Session Two: Using colored pencils, patients will draw their own homes. This activity is designed to deepen their sensory and emotional connection with their living environment, reinforcing a sense of belonging and affirming their daily living abilities.

Session Three: Patients will engage in neural drawing with markers, a technique intended to connect with the subconscious. This process can help alleviate stress and support mental well-being by encouraging a flow state through freeform expression.

Session Four: Using color powders, patients will create images representing their self-energy groups. This session focuses on fostering emotional awareness, providing a channel for unconscious expression, and helping release negative emotions.

Session Five: Patients will create collages called "brain world" using magazines, scissors, and glue. This creative process is designed to stimulate memory retrieval, encouraging patients to explore personal memories and reduce fears associated with memory loss.

Session Six: Through the use of mixed media, patients will draw an "inner world map." This self-reflective exercise allows for inner emotional regulation, providing an opportunity for self-expression and enhancing self-awareness.

Session Seven: Patients will copy famous paintings to practice focus and color perception. This exercise is intended to relax the mind, foster concentration, and relieve anxiety by immersing them in structured, calming activity.

3.4. Data collection

At the beginning and end of each healing activity, the researcher will evaluate the patient's mood. The assessment method includes observing the patient's emotional changes during the painting process and interviewing family members or caregivers to understand the patient's performance and emotional response during the healing process.

4. Result and Analysis

4.1. Analysis of Painting Therapy Works

The analysis of painting therapy works reveals how each session supported self-expression, emotional management, and creative confidence for Grandma and Grandpa. In Session 1, where they created portraits of each other, Grandma's delicate, careful strokes contrasted with Grandpa's simple lines, reflecting her caution and his ease in the process, highlighting both their personalities and their engagement in self-expression through art. In Session 2, Grandma drew her family home with colored pencils, though she couldn't precisely remember her surroundings. Nonetheless, her drawing conveyed her affection for her family, and the session helped release emotions and alleviate her headache, underscoring painting's role in emotional relief. Session 3 involved neuronal painting, where Grandma used highly saturated colors to express a complex emotional landscape, indicating her desire to communicate emotions and reducing her anxiety through the repetitive act of coloring, which also evoked youthful memories. Session 4, focused on drawing a self-energy group, enabled Grandma to express emotions by selecting favorite colors and graphics, fostering relaxation and stability and increasing her enthusiasm for family activities. In Session 5, collage therapy allowed her to explore creativity without the constraints of traditional painting, helping her release inner tension and enjoy artistic exploration. When creating her "inner world map" in Session 6, Grandma used

varied lines and colors to divide her inner world into a landscape of vitality and a secret garden, expressing both her understanding and love of life. Finally, in Session 7, copying Hilma af Klint's work, she added her own creative adjustments, modifying color choices to echo her inner spirit and demonstrating a newfound confidence in artistic expression. Each session facilitated emotional release, improved her mood, and reflected her deepening comfort with the creative process.

4.2. Result

4.2.1. Improvement of emotional expression and communication

During the whole process of painting therapy, painting creation has become an important medium for patients to express their emotions. By drawing works such as portraits, family scenes, and self-energy maps, patients can release long-term repressed emotions and communicate effectively with their family members and caregivers. In Session 1, grandma and grandpa jointly carried out the activity of "drawing portraits for each other". This process not only allowed Grandma and Grandpa to express themselves through art, but also facilitated deeper emotional communication. As Grandma gradually relaxed during the creation process, her interactions with Grandpa became more natural and enjoyable. Painting therapy served as a bridge for connection, enabling patients to feel increased support and understanding when engaging with others.

In addition, the creation of "family paintings" in Session 2 allowed grandma to recall her former living environment, and she transformed these memories into images through painting, expressing her love for life. Although grandma failed to accurately recall the details of the house when painting, she expressed her emotional connection with her home through simple pictures. This way of expression has a significant healing effect on emotional communication.

4.2.2. Enhancement of self-cognition and self-esteem

Painting activities play an important role in patients' self-cognition and self-esteem. Through creation, patients can not only re-examine themselves, but also feel the realization of self-worth in the process. For example, in Session 1, although grandma lacked confidence in her painting ability at the beginning, she gradually overcame this psychological barrier by painting with her family, and even enjoyed the satisfaction brought by artistic creation in the process of painting. For grandpa, after seeing grandma's mood improve, he expressed his high recognition of this activity and hoped to continue similar painting therapy activities to help grandma maintain emotional stability.

In Session 4, by drawing the "self-energy group," grandma began to explore and recognize her emotions more deeply. She selected colors like red, green, and yellow to symbolize her inner vitality, healing, and creativity. Through this expressive process, she not only experienced emotional release but also developed a deeper understanding of her inner strength. This newfound emotional awareness contributed to an improved sense of self-esteem, reinforcing her confidence in her personal resilience and capacity for self-expression.

In summary, painting has proven beneficial in reducing anxiety among patients with cognitive impairment. First, it offers a therapeutic outlet by allowing patients to focus on creative tasks, helping to alleviate anxiety and enhance self-expression. Second, painting serves as an effective channel for emotional release; patients with cognitive impairment often experience emotional instability and depression, and painting allows them to convey their emotions through colors, lines, and shapes, thus easing emotional stress. Lastly, painting fosters positive social interactions, encouraging communication and collaboration with others. This social engagement helps improve social skills, reduce feelings of loneliness, and ultimately enhances the overall quality of life for patients.

5. Conclusion

This study highlights the potential therapeutic benefits of painting therapy for alleviating anxiety and enhancing emotional expression in Alzheimer's patients. Through structured art activities over a seven-week period, the program provided a platform for participants to reconnect with memories, express emotions, and strengthen self-awareness. Analysis of the sessions suggests that painting activities not only helped participants communicate emotions effectively but also improved their emotional resilience and engagement with their environment. Particularly notable were the personalized elements of each session, such as portrait creation, neuronal drawing, and "inner world maps," which allowed for a tailored approach that aligns with the unique emotional and cognitive needs of Alzheimer's patients.

However, this study is not without limitations. The sample size was limited to a single patient, which constrains the generalizability of the findings. Additionally, subjective assessments were heavily reliant on caregiver observations and family interviews, which may introduce observational bias. Future research should consider larger, more diverse sample sizes to enable broader application of findings. Quantitative measures, such as anxiety and mood scales, could also complement subjective assessments, offering a more robust evaluation of painting therapy's efficacy. For future studies, exploring various forms of non-verbal art therapies, such as music or dance, could provide a comparative perspective on different therapeutic mediums in dementia care. Examining the long-term effects of art therapy on cognitive function could also add depth to the understanding of its potential in slowing cognitive decline.

References

- [1] Stites, S. D., Harkins, K., Rubright, J. D., & Karlawish, J. (2018). Relationships between cognitive complaints and quality of life in older adults with mild cognitive impairment, mild Alzheimer disease dementia, and normal cognition. *Alzheimer Disease & Associated Disorders*, 32(4), 276-283. <https://doi.org/10.1097/WAD.0000000000000269>
- [2] Morris, F. J. (2014). Should art be integrated into cognitive behavioral therapy for anxiety disorders? *The Arts in Psychotherapy*, 41(4), 343-352. <https://doi.org/10.1016/j.aip.2014.06.004>
- [3] Feng, Y. (2023). Research progress on anxiety and depression in patients with mild cognitive impairment. *Clinical Medical Progress*, 13(2), 1795-1804. <https://doi.org/10.12677/ACM.2023.132249>
- [4] Xiang, M., & Liu, R. (1996). Baseline survey of the multidimensional longitudinal study on population aging in Beijing. *Chinese Journal of Geriatrics*, 15(6), 328-331.
- [5] Solfrizzi, V., D'Introno, A., Colacicco, A. M., et al. (2007). Incident occurrence of depressive symptoms among patients with mild cognitive impairment—The Italian Longitudinal Study on Aging. *Dementia and Geriatric Cognitive Disorders*, 24, 55-64. <https://doi.org/10.1159/000103632>
- [6] Baiyewu, O., Unverzagt, F. W., Ogunniyi, A., et al. (2012). Behavioral symptoms in community-dwelling elderly Nigerians with dementia, mild cognitive impairment, and normal cognition: Nigeria Mild Cognitive Impairment Dementia Behavioral Symptoms. *International Journal of Geriatric Psychiatry*, 27, 931-939. <https://doi.org/10.1002/gps.2804>
- [7] Eskel, A., Nie, J., & Li, X. (2023). Progress in the application of creative art therapy for the mental and behavioral symptoms of dementia patients. *Journal of the Chinese Academy of Medical Sciences*, 45(2), 322-326. <https://doi.org/10.3881/j.issn.1000-503X.15009>
- [8] Emblad, S. Y., & Mukaetova-Ladinska, E. B. (2021). Creative art therapy as a non-pharmacological intervention for dementia: A systematic review. *Journal of Alzheimer's Disease Reports*, 5(1), 353-364. <https://doi.org/10.3233/ADR-200262>