



The Art of Medicine and the Medicine of Art

ABSTRACT

Two case studies demonstrate the therapeutic benefits of creative arts in dementia patients. A 75-year-old woman with mixed Alzheimer's and vascular dementia resumed drawing after donepezil treatment, showing improved cognition and quality of life. A 78-year-old Greek man with mild dementia used music for emotional coping and cognitive enhancement. Both cases illustrate how artistic activities complement traditional medical treatments, improving well-being, communication, and cognitive function in patients with dementia through non-pharmacological interventions.

KEYWORDS: art therapy, music therapy, dementia treatment, non-pharmacological intervention



Case 1: Patient A—a 75 year old woman

A seventy-five-year-old woman was being followed by me at a memory clinic. She had a diagnosis of mixed Alzheimer's and vascular dementia by history (strong family history) and diabetes mellitus and hypertension. Her MRI revealed moderate atrophy and microangiopathy. Her MOCA was 19 and she agreed to a trial of donepezil, starting with two weeks and 2.5 mg/day and then 5 mg/day which she tolerated. Three months later she admitted, and this was confirmed by her husband that she was improving, and she said she felt her head was, "less foggy" and her MOCA was 22 with improved recall, clock and Boston Naming Test (BNT).

Three months later she said she continued to feel much improved and started drawing again which she had done for years but stopped as her cognition declined. Her MOCA was 23 and the rest of her findings were the same. She asked if she could show me something and when I agreed she produced a large artists' drawing book onto which she pasted on various sized white post it notes drawings that she had done over the previous 3 months. I was amazed at not



just her drawing skills but the use of colors—she said she employed various colored marker pens and fine sharpies for the outlines. She divided the book into sections with various motifs, all of which were very bright and full of life. As she described each section, she was full of joy and excitement. She said she used to do this kind of work when she was younger and not thought of doing it until during one my meetings with her, I asked about hobbies, and that reminded her of the art which she so much loved.

Discussion

The conclusion of a 2006 article in the *Journal Gerontology* stated that, “Creative and art therapy provides possibilities that are mostly indicated to sharpen the capacity of the senses and the patients’ propensity to act themselves.” Nonverbal therapy methods, such as painting, music, etc., are able to influence the well-being of the patients positively, within the modern healthcare system in nursing homes. The elderly and some of the dementia patients take the initiative to combine creativity and arts and to define his/her feeling for aesthetical matters. Furthermore, group therapy sessions help against isolation and lack of life perspective and hope. The results of another review of the place of artistic undertakings in patients with dementia states.

Another 2020 study on “Art, Colors, and Emotions” Treatment (ACE-t): A Pilot Study on the Efficacy of an Art-Based Intervention for People with Alzheimer’s Disease, concludes that, “The added value of this kind of non-pharmacological intervention is that it is not limited to mere cognitive training but open also to the promotion of well-being in an enriched relational environment with significant others. The active involvement of CGs, (caregivers) group participation promotion, activities focused on residual abilities rather than on deficiencies, emotion-





Beautiful artwork that Patient A was able to return to after diagnosis and proper treatment for her Alzheimer's and vascular dementia

evocative visual art stimuli, and engaging activities altogether had success in reviving and reinforcing PWAD's (patient with Alzheimer's Disease) relational context, also affecting multiple functioning dimensions.

Case 2: Patient B—a 78 year old man

It was the fourth time meeting with this 78-year-old Greek born man with mild dementia according to his mental status examinations. He was in a bit of a bind which he explained as we spoke. He had just

broken up with a long-standing female live-in companion because as he said, "we had just run out of interest in each other—including sex" which he said he enjoyed.

When I asked how he coped he referred me back to his great love which was music—as it had been explained many times to me. He was apparently an accomplished guitarist and composer. He had showed me covers of CDs that he had been involved with as composer and the bands with which he had performed. He was

on donepezil which appeared to be of benefit and helping his cognitive function and he was quite independent in all of his independent and basic activities of daily living,

He recalled that I had a son who is a heavy metal guitarist from a previous meeting. He asked how he could access his band and I did it with him on his smart phone through the YouTube® app. He said he wasn't a big fan of heaving metal music, but he could recognize my son's musicianship as we watched the video together.

He demonstrated to me the power of music as it relates to the mind and its place in enhancing cognition. The usual mental status examinations do not measure the aspects of musicality or other domains of creativity. I suspect as we understand better the lifestyle factors as they related to dementia music as well as other creative attributes are beneficial—I would not be surprised that listening to, playing and writing music must be as good as puzzles and learning a new language which many of us in aging and



CD covers of Dr. Gordon's son's band which was discussed with Patient B and viewed during the office visit



SUMMARY OF KEY POINTS

Creative Arts as Complementary Treatment: Art and music therapy serve as valuable non-pharmacological interventions that complement traditional dementia medications like donepezil, enhancing overall treatment outcomes.

Cognitive and Emotional Benefits: Artistic activities can improve cognitive function, reduce behavioral symptoms, enhance mood, and provide emotional outlets for patients with Alzheimer's disease and other dementias.

Preservation of Creative Abilities: Despite cognitive decline, patients often retain artistic and musical abilities longer than other cognitive functions, allowing for meaningful engagement and self-expression.

Quality of Life Enhancement: Creative therapies improve social interaction, reduce isolation, and maintain personhood and identity in dementia patients, contributing significantly to overall well-being beyond mere cognitive measures.

memory care can enhance cognitive function.

Discussion

An article in a 2024 edition of Medical News Today says, “Music may positively affect social interactions for a person with Alzheimer’s disease and those around them. If verbal communication becomes difficult for someone with the condition, music can allow people to connect in another way.

Caregivers or loved ones can share the experience of listening to and enjoying music together. In the later stages of Alzheimer’s disease, people may still be able to sing a song from their childhood or respond to a beat.

According to a 2023 systematic review, music may also provide a greater sense of connection and socialization for people with Alzheimer’s disease who feel isolated.

Memory

Memory issues are a key feature of Alzheimer’s disease and typically worsen as the condition progresses.

However, a 2022 review suggests that musical memory may partially remain in people with Alzheimer’s disease. People with the condition may have an emotional reaction to music and be able to learn new songs. Music therapy may help affected individuals recall more information or events from their own lives and help improve cognition.

Improved mood

Research suggests that musical therapy may help improve mood and reduce depression and anxiety in people with Alzheimer’s disease. Music may also help reduce agitation and may help with behavioral issues that can occur in the middle stages of the condition.

Effects on the brain

According to a 2022 review, some theories suggest music may have the following positive effects on the brain in people with Alzheimer's disease:

- stimulating the formation of new nerve cells in the brain and neuroplasticity, which is the brain's ability to change structurally, such as forming new connections between nerve cells
- stimulating the release of dopamine, a neurotransmitter that has associations with cognitive decline and is typically lower in people with Alzheimer's disease
- generating emotional responses, which may reduce stress and positively affect the immune system, which may lessen nerve cell function loss

From these two cases, it is evident, that as much as there is an art to medicine, beyond the clinical competencies, there is an abundance



Mammoth and ibex from Rouffignac Cave in Nouvelle-Aquitaine, France (from Wikipedia)

of medicine in art. Throughout human history, our species has found way to produce art, whether in caves, on walls, on canvas or on parchment and paper. We have vast edifices that gather the art of the ages, we have galleries that provide opportunities for artists to show and sell their creations.

Many if not most homes, from all segments of society, of ten have are pieces on the walls, shelves and that of our children posted on our refrigerators.

Even the most apparently primitive societies enjoy the pro-



CLINICAL PEARLS

Ask About Creative Interests: During patient assessments, specifically inquire about previous artistic hobbies or musical interests, as these can be powerful therapeutic tools that patients may have forgotten they enjoyed.

Musical Memory Persists: Musical abilities and memories often remain intact longer than other cognitive functions in dementia patients, making music therapy particularly effective even in moderate to severe stages of the disease.

Focus on Residual Abilities: Design interventions around what patients can still do rather than their deficits - this approach promotes engagement, self-esteem, and therapeutic success in creative activities.

duction of music and use it for entertainment, religious activities and for the soothing of the soul. In most societies children are exposed to music early on in life. Some even believe that exposing the fetus to music will assist in the mental development. Music is taught by parents, in schools and by musical teachers and many societies support orchestras and other musical groupings for the entertainment of the public. We often elevate musicians to the status of celebrities and that now includes in most developed societies, the whole range of music from the sophisticated “classical” music to the pop, jazz, rock and roll and what some call “heavy metal”.

For physicians, especially those who care of those with cognitive impairment, we must always look beyond the traditional modalities of treatment with medication or other typical clinical approaches. During the past decade or more there has been an increasing exploration and recommendations made about lifestyle factors such as diet, exercise, smoking, the treatment of risk factors of brain decline such as hypertension, diabetes mellitus and hyperlipidemia. An

increase focus on alcohol intake has resulted in new guidelines in Canada and the United States that focuses on substantial reduction in alcohol intake.

The focus on artistic undertaking can go a long way, so it seems, in improving not only cognitive function but even if not that, to enhance the enjoyment and quality of life, communication and expression of the personhood of the patient.

Verbal informed consent was obtained from the patients for publication of these case studies and any accompanying clinical details. The verbal consent was documented in the patients’ medical records and witnessed by health-care providers.

References

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