

The Effects of Art Therapy for Elderly Patients with Severe Alzheimer's Disease —A study through the Practice of Aged Health Care Facilities—

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I. Introduction

Japan is now an aging society because 14% of their populations are senior citizens. Aging population is a worldwide demographic phenomenon. But in Japan the population is to sensing an alarming rate compared with other developed countries.

In fact, the Ministry of Health Labor and Welfare has reported that 1,600,000 senior citizens are suffering from dementia and that the number is estimated to exceed 3,000,000 by the year 2025.

We started our experiment by utilizing art as therapy for a group of senior citizens with dementia who frequent an Health Care Facility in Japan.

Since the first experiment in 1999, we have been observing and recording positive results in the form of a reduction in problem behaviors among demented senior citizen's consistence with art game program. This result suggests that art therapy could change the behavior property and that the change might differ according to the personality of the patient.

We are proposing art to be used in a series of pilot experiments. In preparing the research report we have asked the consent of the patients and family members, and we have changed some details of identity to respect the privacy and human rights .

II. Practices

13 senior Citizens with heavy dementia were selected at random from the population of T welfare institution in a prefecture.

According to the subject's medical records, they were diagnosed as having Alzheimer's diseases or dementia, when they entered the institution.

Moreover, the subjects scored 10 points or less on the HDS-R scale, a score, which indicates the senior citizens have heavy dementia.

The subject's age fell the range of 82.08 ± 9.19 years. There were 8 women and 5 men. They met as a closed group once a week for a total of 12 times in 3 months.

Occupational therapists, nurses and institution staff members helped the author to run the sessions. Family members also sometimes participated.

Table 1 Themes of Art therapy

1	Summertime greeting Post cards of strange marbling
2	Frottage
3	Folk craft
4	The tree is drawn with stamping
5	Collage box
6	Collage box
7	Collage box
8	Flower pot of Clay
9	Flower pot of Clay
10	Coloring paper
11	Calendar
12	Calendar

III. Practice at a Health Care Facility for the Aged.

Although the dementia had caused deterioration in the subject's expressive and volitional abilities, the subjects themselves seemed unaware of their symptoms and made great efforts in their daily lives. Nevertheless they exhibited incontinence, the eating of inedible objects, persecution complex, an intense yearning to return home, and a diminishment of mental facilities such as those for time or sensation.

For a patient with heavy dementia, these symptoms occur over and over through out course of a day. Please keep in mind the information above as you read through the following example.

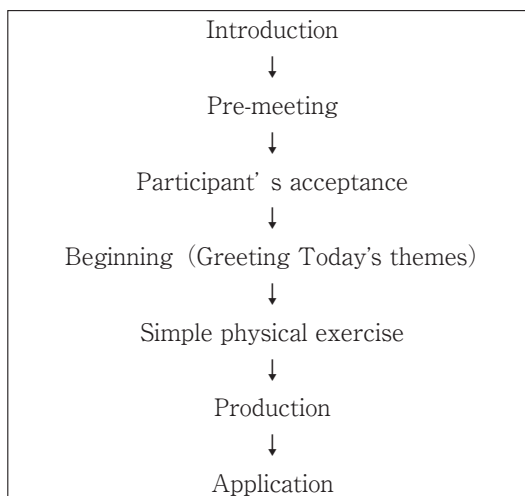
The case of Mrs. A an art therapy participant with the heaviest dementia, will be presented in this paper. You will notice that the subject exited early from the sessions on a number of occasions.

(Subject)

Mrs. A is an 88 years old woman with Alzheimer's disease. At the time of admittance the subject scored 0 on the HDS-R scale and exhibited problem behaviors such as wandering and eating inedible objects. Also, the subject hardly communicated with the institution's personnel, in particular the admitting staff.

The subject is short in stature, and after entering the institutions, the elderly Mrs. A was regarded as weak. She was not interested in drawing pictures before the onset of the disease, but as her athletics ability was high and as she worked as a farmer, she led a healthy life.

Table 2 Flow of art therapy session



[Session no.1]

When the session was ended the subject's art project had not progressed at all as she never sat down, repeatedly wandered and bothered other people with her disruptive behavior.

[Session no.2]

During calisthenics, for example, the subject repeatedly put the equipment into her mouth and could not perform the exercises, which the personal showed her. But after the staff moved her body, she was able to repeat the movements.

During the art therapy session, she tried to eat colored pencils and break the handle of her brush. She also wandered around the room trying to grab the other patients brushes, which she wanted for herself.

Even if Mrs. A was handed a brush, she was more interested in the other brushes.

When she was brought back to her seat, she didn't understand and continued to forcibly try to get the other brushes. The personnel had to repeatedly talk to her.

She continually repeating these behaviors.

[Session no.3]

During calisthenics, Mrs. A wanted the other's equipment, even though she had her own, so she was observed causing trouble. She knocked calisthenics equipment off the table but then said words appropriate to the situation, such as "Sorry" or "that's bad".

However she continued to want the things used by others. During the art therapy session, she didn't use the supplied art materials but used color pencils instead; she understood that purpose of the color pencils was for drawing. But, took a lot of times to start. Then, as soon as she started, she abruptly

stopped. After a staff member urged her on, she started drawing once more but again stopped.

She wanted to use other people's things and wouldn't let go of whatever she grabbed. During the session, she was led to the bathroom, and immediately after she returned, she was observed eating inedible objects.

It took time, but she was able to understand a single action, after which, at the urging of a staff member she was able to concentrate.

It was possible to observe a slight smile on her face.

[Session no.4]

When urged by the staff to use the calisthenics equipment. She didn't understand what to do and tried to break or eat it instead. During the art therapy session, the subject often tried to eat inedible objects. Also, when a pencil was passed to her, she tried to break it or seemed to be not interest at all.

She didn't communicate with the staff and her artwork hardly progressed. Moreover, she sometimes wandered.

[Session no.5]

With the staff's help, the subject performed the physical exercises along with the others. She appeared to be listening to the staff's explanations. It was sometimes necessary for the staff to urge her on, but she continually worked on the art project.

Thoroughout the session Mrs. A was seen grabbing at colored pencil other than her own. She sometimes tried to eat in appropriate objects, but as the session advanced, she began to settle down. When the staff asked for her impression of the work produced by other people, she kept on saying. "it's good!, it's good!" Mrs. A also sometimes applauded her own art as she worked on it.

[Session no.6]

Even though Mrs. A, up to this session, had been unable to understand the purpose of the callisthenic equipment, she started to use it correctly in session 6.

Moreover, she started to understand the use of other calisthenics equipments and began to use them herself.

During the session, she realized by herself that she could color the sides of the box she was working on. She then thoroughly colored the rectangular panels. Moreover, when she spoke with the staff members, she sometimes made eye contact with the people around her.

The number of communications she made such as "really?" or "thank you" increased. When a staff member picked up something she dropped under her desk, she said, "thank you" three times in response. She hardly wandered and rarely tried eating inedible things.

[Session no.7]

With the staff's help, she used the calisthenics equipment calmly with the others. To remarks made by the staff, she replied "Yes, that's from the beginning of the art Project to the end". She worked calmly continuing her art project from the previous session, all the time singing to herself.

When she was shown an old photograph that another participant had drawn, her eyes stared the image and she said, "Oh, really? my father".

[Session no.8]

Even though it was sometimes required for Mrs. A to recognize how to use the callisthenic equipment with the staff's demonstration, she correctly perform the exercises. During the session she correctly held the pencils and drew lines on the paper. She concentrated and drew lots of lines and points. On the back of the papers, she drew many circles equidistant to each other.

She was able to glue pieces of paper together using stick it to another piece of paper with her right hand, then the left hand, and then she heartily pressed down these paper with both hands.

When she worked one on one with a staff member she was able to maintain a good backbone posture.

After she concentrated on her project for a good while, she looked tired and sat quietly on a chair. When a staff member told her that she did a good job, she replied, "Really? Thank you, Thank you". and smiled.

[Session no.9]

The subject correctly held the callisthenic equipment at the urging of the staff. Whenever the staff stopped calling out to the subject, she was seen touching the sheet of newsprint and gradually dragging it towards herself.

During the middle of the session, she correctly held her pencil and, following the lines of a circle, made many scribbles. She said, "Thank you, thank you", many times, as she concentrated on her drawing she did not eat inedible objects. With a serious expression on her face, she held her pencil and paper and leaned close to draw. She didn't pay them any attention to her surroundings.

Even when other session participants wandered close to her, she didn't mind them at all. During the second half of the session, she sometimes sang her favorite song to herself and clapped her hands. Then she would completely stop using her hands to make the art and sang the song.

After watching another participant used some soil, the subject brought the soil close to her mouth as if she was about to eat it. Then after a staff member reminded to her that, "It was soil!. Oh!, it's a soil.", she gave up trying to eat it. When she met eyes with a staff member, she said thank you, and sang her song with a smile on her face.

The staff members were delighted by the eye contact and the communication. The subject did not understand what was being said to her but she repeatedly said, Thank you and smiled.

[Session no.10]

Even though she recognized the calisthenics equipment correctly, it took her sometime, but after the repeated urging of the staff, she correctly used the equipment.

During the session, the subject drew many circles within the circle printed on the handout. Next, she colored the circles she made.

When she saw a blown up photo of her face, she said, "Mother" then she concentrated on and colored on the photo of her face. First, she traced the outline of her face with colored pencils, and then she colored it. She did not wander but stayed in her seat until the end of the session.

She did not eat inedible objects. Sometimes the staff had to tell her to continue with her Art work, but she already concentrated it from the beginning of the session to the end, and she made with much effort. The subject was often observed by communicating with staff using the eye contact. She sometimes said "thank you" or "yes, that's so".

[Session no.11]

In the exercises period, Mrs. A understood the staff's instructions and held the callisthenic equipment correctly, but she was not able to use it properly until a staff member indicated what to do. She said "Oh! "I see", and then correctly held the equipment.

During the art period, it took time for her to hold her brush appropriately but once she held the brush on her paper. She concentrated until the end and did not wander. As for eating inedible objects, the subject at one point almost put a brush loaded with water color paint into her mouth. When a staff member said, you shouldn't do that, the subject realized by herself that it was something that she should not eat.

A staff member asked the subject about the names of the water colors, but she was unable to answer, so the staff member told her. At this point she said the names of the colors repeatedly. She concentrated from the beginning to the end while making remarks such as thank you. She often smiled and occasionally laughed out loud.

[Session no.12]

During the exercise period, the subject was able to use the calisthenics equipment. She copied the actions of a staff member, who modeled the actions in front of her and shouted encouragement. Furthermore, she counted out the exercises in a loud voice as she performed them.

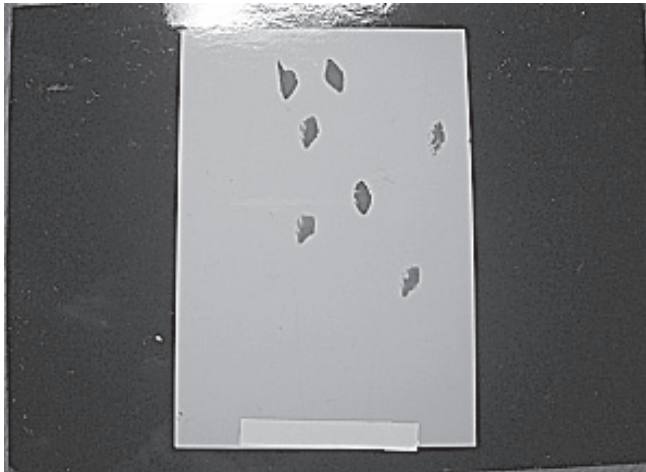
The subject was talkative during the art session. When a staff member told her to draw a triangular object she colored in the last session onto a piece of paper, she did not understand instead. She used the straight edge of the triangle to draw a straight line on the artwork.

Staff member put glue on the object placed it on the paper and urged the subject to press down on the object to firmly attach it. As soon as she pressed down the object however she removed her hands. The staff member gave the request repeatedly but she continued the same action.

In the middle of the session, the subject was observed once again using the straight edge of the triangular art object as a ruler and drawing lines.

The subject was often observed saying "thank you" or "is that so?". She made an eye contact with the staff members when talking to them. However, even though she communicated often, the staff was frequently unable to understand her.

The subject did not wander, she seemed restless due to the laxative medicine she was taking.



Picture 1. Mrs. A's painting

IV. Consideration (Case study of Mrs. A at a Health Care Facility for the Aged)

While all of the participants in the art therapy sessions had heavy dementia. Mrs. A has the heaviest case and the subject rarely communicated with staff members or other patients. The subject wandered ate inedible objects, she suffered from a persecution complex and showed little emotional effect. The staff always give her a help.

In this condition, Mrs. A was unable to produce much art during session 1. One reason was that when the subject was confused, she could not recognize her own dementia.

Just as in session 1, the subject's action of eating inedible object stood out. The session proceeded with the staff keeping a constant eye on the subject A.

The subject was often observed grabbing her brush with two hands and trying to break it. She wanted to take the drawing material of other participants.

When her demands didn't met, she would start wandering and try to grab what she wanted for herself. She seemed interested on what other people were doing.

Repeating acts such as those mentioned above was a general condition of senior citizens with dementia. Exhibiting overt disorientation towards time and space, she wandered and acted in a confused manner.

Dementia patients show different behaviors, according to their individual personalities. The wandering of Mrs. A can be thought of as expression of some sorts of desire.

Therefore, it can be thought that the wandering of Mrs. A was a reflection of her desire to participate despite her apparent inability to understand the session.

Mrs. A wandering was more excited during the sessions than during her daily life. We should recognized that the self expression of her under went some kind of transformation despite her impaired cognitive abilities. In session No.3 the subject continued to repeat actions observed in the previous sessions.

However, she started to use expressions such as "I'm sorry" or "That was bad!" which were suitable to the circumstances. She understood how to use the drawing materials, and although this took time, she was able to perform the coloring tasks.

Judging from the slight smile on her face, it appeared that the subject accepted the session. In session 4, although the subject appeared to understand her tasks and participated as she had in session 3, she also was observed wandering and eating inedible objects. Compared to ordinary people, the mental states of senior citizens with dementia show surprising mood swings that change day by day.

On the day that Mrs.A was able to communicate when she was propped to make drawings, although it took a long time to orient her to the task, she was able to start her project with help .She was able to start her project with help from the support staff. But when Mrs.A was not able to communicate she was also not able to focus on her art work and exhibited signs of confusion instead. Subject A seemed to regress in session 4, but in session 5, although she still needed the help of the staff in the introduction period to participate in chanting and performing callisthenics ,she communicated with the staff, saying "Yes, that's right!" or "Okay!" Also, she correctly used the drawing materials and she appeared to concentrate on her work. Moreover, she was also seen extending her hand to choose different color pencils, an action good for her hand-eye coordination.

Although the subject suffered from diminished intelligence and perception as a result of her severe dementia, the drawing activities may have stimulated her latent abilities. Similar to session5, Mrs. A seemed to be in a good condition in session 6.

During the coloring activity, she recognized the sides of the box and thoroughly colored within the square areas. Also, she made eye contact on several occasions with the staff members when communicating with them. The number of times the subject was able to successfully participate in a conversation increased. Meanwhile, she refrained from eating inedible objects.

When asked her name, she was able to reply correctly. The family had been worried about the progress of the subject's dementia. The subject usually failed to respond when staff members called her name and was unable to recognize her name when her name plate was shown to her. One may conclude that the activation of subject A's cognitive abilities that occurred in session 6 was a result of the art therapy treatment.

V. Conclusion

Compared to previous sessions, the subject's participation improved in session 7. She worked more continuously, and she wandered and ate inappropriate objects.

The subject said "Father!" when she saw the photograph brought by participation that triggers latent memory abilities.

Mrs. A was not considered by the staff to possess the ability of conscious recognition as a result of the mental disorientation caused by her dementia.

However one can say that Mrs. A, who was rarely, observed expressing her emotions, nevertheless recalled feelings from her memory in the instant that she saw the photograph. Therefore, the act of drawing the picture appealed resolutely to the feelings of Mrs. A, though it was said that as a result of heavy dementia she mostly lacked the abilities she used to have.

Of course the photo brought by the other participant was not Mrs. A's father. She recalled her father when she saw a photo is due to the synergistic effect of the reminiscence therapy and art therapy offered in the session.

It can be thought that the incident is evidence that some emotional memories came to surface on Mrs. A. Mrs. A's condition was better in session 8 and 9 than in the previous sessions. She held her pencil by herself correctly and drew many regularly spaced circles.

However, looking at the way that Mrs. A was able to draw circles at approximately equal intervals without using a ruler, we can surmise that her way of expression, though simple, was at a higher level than the normal for senior citizens with dementia.

The circles that Mrs. A drew on the paper were not copied but a product of her imagination.

That Mrs. A was able to draw the circles at regular interval shows that even senior citizens with acute dementia who have constructional apraxia or positioning localization difficulties, nevertheless, can continue to have the ability to draw simple geometric shapes repeatedly on a flat plane.

In session 10, when Mrs. A saw a magnified copy of a photo of herself, she exclaimed, "Mother". Then she drew a line that traced the outline of her face on the photo. Next she made spiral like scribbles within the outline in the fleshing area of the face.

Continuously, she changed pencil colors and continued to make scribbles.

Mrs. A clearly understood the inside and outside of the outline of the face. She persistently colored the forehead and cheeks of the face until the end of the session.

Therefore, we can suppose that Mrs. A, despite being in an advanced stage of heavy dementia, was able to discriminate between the outline and the area of the face, because of some kind of mental ability she retained from the past.

Symptoms particular to dementia, such as BPSD and eating inedible objects were diminished in sessions 11 and 12 as well.

Mrs. A attempted to eat an inedible object at one point, but when a staff member explained to her that it was not food, she said, "This is not a good thing to do" and stopped the behavior without further intervention from the staff.

During her everyday life in the institution, Mrs. A often needed intervention by staff members to keep her from eating inedible objects due to her diagnosis.

During session 12, Mrs. A without help from the staff, was able to repeatedly draw straight lines with a ruler on triangles of cardboard which she had painted and fixed to a sheet of drawing paper. However, considering her advanced stage dementia this should have been problematic. Nevertheless, Mrs. A drew many straight lines by herself. Therefore it can be thought that even though this act may have only been momentary, the act of drawing stimulated latent mental abilities.

Moreover, from session 5 onwards, Mrs. A could be seen laughing and smiling sometimes.

VI. Result

Amongst the senior citizens with dementia at the welfare institution, she had the most severe symptoms. The staff at first, judged, and that, there would be too many difficulties if Mrs. A participated in the art therapy sessions.

However, as the sessions advanced Mrs. A began to express human emotions which she never showed in her daily life at the facilities. She seemed to make a great effort to transcend the limits of her dementia by projecting her inner world onto her artwork.

Even the professional staffs at welfare institutes tend to give up on senior citizens with heavy dementia and treat them in a perfunctory manner.

However as all of us will eventually become old, it's natural to hope for a human existence up until the end of life.

Art therapy is an especially effective treatment method for senior citizens with dementia, because art activities provide them with a time in which they can gain a feeling of self-respect.

Surely, art therapy is a valuable method for allowing senior citizens with dementia to live in a more human like manner, even though Mrs. A's dementia symptoms were especially severe. The drawing activities she participated in activated her latent abilities, so as a result, she momentarily returned to her original self.

As a future research topic, the writer plans to conduct a long-range statistical study of the effect of art therapy on Mrs. A with heavy dementia.

References

1. Mizuno Y, Endo H, Kakimoto M, Shibayama H, Assessment of Competency to Competency to Contract for Care Insurance in Aichi Prefecture. *Psychogeriatrics*, vol.1, 1987, pp.203-208.
2. Reisberg B, Borenstein J, Salob SP, Ferris SH. Behavioral symptoms in Alzheimer' disease: Phenomenology and treatment *J Clin Psychiatry* ; (Suppl), 1987, pp.9-51.
3. Folstein M.F., Folstein SE, McHugh P.R; "Mini-Mental State"; A practical method for grading the cognitive state of patients for the clinician. *J Psychiatr, Res* 12, 1975, pp.1889-1898.
4. G.Pfurtscheller, in: 4th ed., G.Pfurtscheller, F.H.Lopes da Silva (Eds.), *Event-Related Desynchronization, Handbook of Electroencephalography and Clinical Neurophysiology*, vol.6, Elsevier, Amsterdam, 1999, pp.89-105.