

SCRIPPS GERONTOLOGY CENTER

WOLF PROJECT: EVALUATION OF THE CREATIVE ARTS IN AGING AT CEDAR VILLAGE



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PROJECT DESCRIPTION

The purpose of this research is to evaluate the Creative Arts in Aging Program at Cedar Village. New funding from the Wolf family that began in January of 2012 allowed Cedar Village to expand and build upon its existing creative arts programming. In the spring semester of 2012 (January – May), the funding provided residents with opportunities to participate in art activities conducted by Joan Hock (artist) and additional music therapy sessions conducted by Jude Jones (music therapist). This document reports the first round of evaluations of art/music activities; the evaluation was conducted by Scripps Gerontology Center at Miami University during this first semester of the expanded arts programming.

PARTICIPANTS

Consistent with Cedar Village policy, attendance at and participation in the creative arts activities was made available to all residents who wished to participate; no resident was ever required to attend an activity or prevented from attending. A total of 63 people were observed during the spring 2012 semester, yielding a total of 122 observations. We were unable to observe residents in more advanced stages of dementia (Ruby and Pearl) because they could not participate in these activities. An Explanation of the Gem Levels used to characterize residents appears at the end of the report. Residents were observed doing a variety of activities. For the purpose of this report, the primary focus is on their participation in the new and expanded art and music therapies conducted by Joan Hock and Jude Jones. In the table below these activities are labeled as the

“Wolf Project.” Residents were also observed during traditional structured activities such as bingo, Shabbat, coffee & news. Arts & crafts and sing- along activities that were not conducted by the art and music therapists were grouped as part of the traditional ongoing activities at Cedar Village. Some residents were observed in more than one activity during the semester.

Table 1: Number of people observed and number of observations (Spring 2012)

Gem Set	Total number of people observed	Number of people observed in Wolf Project	Number of observations of Wolf Project activities	Number of observations of traditional activities
Diamond	29	22	27	20
Emerald	19	15	21	21
Amber	15	13	18	15
TOTAL	63	50	66	56

DATA COLLECTION

There were several steps in the data collection process.

Selection of an instrument:

After extensive review of available instruments for assessing the creative expression of people with dementia, we decided to adopt the Creative Expressive Abilities Assessment (CEAA) tool, developed by a team at the University of British Columbia (Gottlieb-Tanaka, Lee & Graf, 2008, 2011). This instrument was selected because at present, this is the only observational tool designed specifically for people with dementia. The CEAA was developed and validated using standard rigorous psychometric techniques.

The CEAA items tap seven ability domains: 1) memory, 2) attention, 3) language, 4) psychosocial, 5) reasoning/problem solving, 6) emotions and 7) culture. Each item is scored on a five-point scale (0 = the program did not provide any opportunity for the participant to exhibit the expressive ability; despite the opportunity, the participant never (1), rarely (2), sometimes (3) or (nearly) always (4) exhibited the expressive ability during the activity. These domains are aggregated into a total creative-expressive ability score. The complete list of items used in this research, organized by the seven ability domains, appears in the appendix.

Training observers:

On January 13 and 14, 2012, Scripps invited two of the co-authors of the CEAA instrument (Gottlieb-Tanaka and Graf) to Ohio to provide training on how to use the tool. A total of 29 people attended the training sessions (12 Cedar Village staff members, 12 Miami University students, 3 Miami faculty/staff members, and 2 community members).

Calibrating observers:

During the first two weeks of observation, observers worked in pairs to rate the same residents. This was done to ensure a sufficient degree of agreement among observers. The percent agreement between pairs of observers ranged between 74-85% (with an average of 81%), giving us confidence to proceed with observations individually.

Data collection:

Nine observers (1 Scripps staff, 2 Miami University graduate students, and 6 Miami undergraduate students) collected data at Cedar Village between January 31 and April 30, 2012. Three trips were made on a weekly basis to collect data over a 12-week period. All observers also met on a weekly or bi-weekly basis to address issues that arose during data collection.

None of the Cedar Village staff members participated in actual data collection due to time limitations. However, their participation in the initial CEAA training session was essential in obtaining their support for the process. At the beginning of each week, the activity staff members (both general activity staff and music and art therapists) and the observers received an updated list of people who had been observed and together we identified residents to be invited for participation. The ultimate decision to participate was always in the hands of the residents.

Below is the planned observation schedule; in reality we had to be flexible and observed whomever we could on a given week.

Table 2: Planned Observation Schedule

Week	Gem set observed	Activity
1-2 (Jan. 30-Feb. 10)	Diamond	Structured activity
3-4 (Feb. 13-24)	Emerald	Structured activity
5-6 (Feb. 27-Mar. 16)	Amber	Structured activity
7-8 (Mar. 19-30)	Diamond	Wolf Project Activity
9-10 (Apr. 2-13)	Emerald	Wolf Project Activity
11-12 (Apr.16-30)	Amber	Wolf Project Activity

During this first semester of the evaluation, we focused on refining the observation process. Next semester we will continue our observations using the CEAA tool and add an interview component (see Future Plans).

Use of the Creative Expressive Abilities Assessment (CEAA) tool to observe residents participating in Wolf Project and in traditional activities enabled us to document: 1) the extent to which the two types of activities provided participants the opportunity to exhibit creative-expressive abilities and 2) when the opportunity was provided, the extent to which participants exhibited each creative-expressive ability. Total possible CEAA scores ranged from 25 (the

participant never demonstrated creative-expressive abilities despite the opportunity to do so) to 100 (the participant (nearly) always demonstrated creative-expressive abilities). We also examined the extent to which participants demonstrate the seven domains of creative-expressive abilities while engaging in Wolf Project activities, and creative expression as a function of participants' gem status.

RESULTS

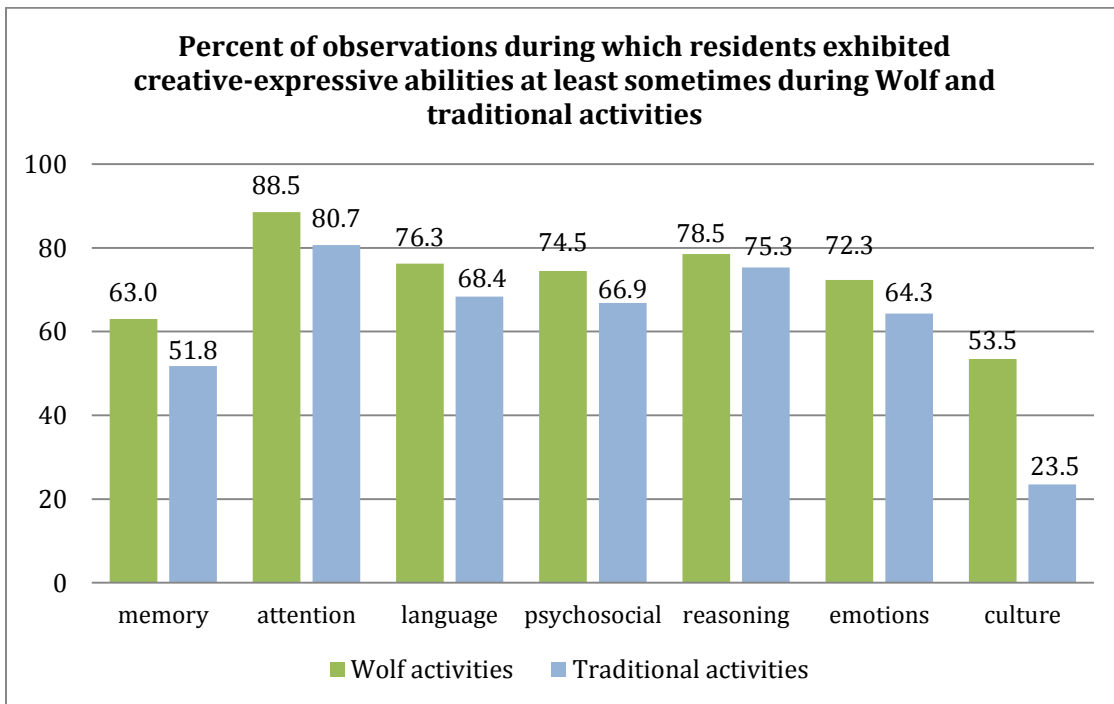
Wolf Project activities offered participants significantly more opportunity to exhibit creative-expressive abilities than did the traditional activities. Equally important, participants demonstrated significantly more creative expression while participating in Wolf Project activities than in traditional activities, as evidenced by their average CEAA scores (see the Summary of Findings table below).

Table 3: Summary of Findings Comparing Wolf Activities to Traditional Activities

	Wolf Project Activities	Traditional Activities	Statistical Significance
Proportion of observations that provide opportunity for creative expression	59.65%	49.35%	Chi Square (1 df) = 32.39, $p < .000$
Average CEAA score	46.78 SD = 19.77 range = 9-88	34.37 SD =15.52 range = 3-68	t (df 121) = -3.850, $p < .000$

To gain a better understanding of the specific creative-expressive abilities that were observed while residents participated in Wolf Project therapies, additional analyses examined the seven ability domains that comprise the CEAA. In these computations, we excluded observations during which the program did not provide opportunity for participant resident to exhibit the expressive ability.

The graph below displays the percentages of observations during which residents exhibited the seven ability domains during the Wolf Project therapies and traditional activities, combining the categories of “sometimes” and “(nearly) always.”



As can be seen in the graph, for all seven domains, creative expression was observed more often during Wolf Project activities than traditional activities. For the language and culture domains, these differences are statistically significant (Chi Squares = 3.84 ($p < .05$) and 7.77 ($p < .006$), respectively). The items comprising these and the other CEAA domains are listed in a table at the end of this report.

To determine whether level of cognitive ability was related to creative expression, we examined CEAA scores separately for residents characterized as Diamond, Emeralds and Ambers. Gem Level was related to creative-expressive ability scores. Diamonds demonstrated the highest average score, followed by

Emeralds; Ambers demonstrated the lowest average score. A one-way analysis of variance indicated that these differences are statistically significant.

Table 4: Creative-Expressive Abilities as a Function of Residents' Gem Status

Gem Status	CEAA Scores during Wolf Project Activities			Statistical Significance
	Mean	St. Dev.	Range	
Diamonds	59.79	14.91	37-88	F = 23.480; p < .000
Emeralds	41.24	13.79	9-62	
Ambers	30.37	13.58	14-70	

This is most likely due to the fact that Ambers are more advanced in their stage of dementia and therefore are less able to express themselves, creatively or otherwise, when compared with the other two Gem Levels.

Summary of findings

- The music and art therapy programming funded by the Wolf Project provided residents with significantly more opportunity for creative expression than did traditional activities.
- Participants demonstrated significantly more creative expression during Wolf Project programming than traditional activities.
- Creative expression was exhibited more often during Wolf Project programming than traditional programming for each of the seven domains of creative expression that were assessed; the differences were statistically significant for creative expression of language and culture.

FUTURE PLANS

In the Fall of 2012, we will continue with the observations using the CEAA tool. In addition, we plan to interview 5-10 residents participating in the creative arts therapies, 5-10 staff members, and 5-10 family members, and 2-5 community volunteers. The purpose of these interviews is to gather information that will enrich the quantitative data about the impact of the program. Illustrative questions for volunteers, staff, and families include

- Can you tell me about the creative arts activities at Cedar Village?
- What are your favorite and least favorite creative arts activities at Cedar Village? Could you please give reasons for your choices?
- What kinds of changes have you seen now that we have more art and music programming on campus?
- Are “art days” different from “non-art” days? If so, how are they different? Please give some specific examples.
- Have the creative arts activities had any effect on the culture at Cedar Village? If so, please give specific examples.
- From your standpoint, what are the challenges and benefits of having more art and music therapies at Cedar Village?

We are also interested in interviewing the residents immediately following an art/music therapy activity. Illustrative questions for the residents include:

- Tell me about how you feel about the activity/art program.
- What do you like best about the activity/art program?
- What do you like least about the activity/art program?
- How do you feel when you are being creative?
- How do you feel when you are doing the activity?
- Tell me about your art.

All recruitment, data collection, data management, and maintenance of confidentiality processes have been conducted in accordance with Miami University Human Subject guidelines.

REFERENCES

Gottlieb-Tanaka, D., Lee, H., & Graf, P. (2008). *Creative-Expressive Abilities Assessment (CEAA)*. Vancouver, British Columbia: ArtScience Press.

Gottlieb-Tanaka, D., Lee, H., & Graf, P. (2011). *Creative-Expressive Abilities Assessment: User guide*. Vancouver, British Columbia: ArtScience Press.

Gem Levels

Understanding What Each Level Means

Imagine Driving a Car... At Each Gem Level

Gem Level	Basic Meaning	So If They Were Driving a Car.... They would
<p>Sapphire</p> <ul style="list-style-type: none"> • Slower to learn • Slower to change • Slowed reactions and processing 	<p>Normal Aging Changes – NO Dementia Slowing Down</p>	<ul style="list-style-type: none"> • Goes slower & stops sooner • Reacts slower • Takes longer to learn how to operate a ‘new’ car • May want to ‘rehearse’ a trip • Likes to allow PLENTY of time to make a trip • May worry about trips/travel • Doesn’t like to be pushed or followed too closely • May give up some driving responsibilities due to ‘fear’ of failure or vision or mobility changes • May blame others for causing risky situations
<p>Diamond</p> <ul style="list-style-type: none"> • Still sharp • Still clear • RIGID • Expects respect • Seeks authority figures • Faking it 	<p>Early Dementia Or Mild Depression Mild Cognitive Impairment Using old habits & routines to Get By Covers up mistakes Gets angry at others Fears getting caught Likes being valued as smart, pretty, thrifty, clever, experienced.... Wants to tell their old stories Wants to let you know who they have been Wants to give something to others</p>	<ul style="list-style-type: none"> • Can drive their OLD, FAMILIAR CAR on their routine trips, along well-known routes, during the usual times, with the regular people in the car, as long as there are NO problems with the weather, equipment, light levels, detours, heavy traffic, distracting conversations or sights, their health, and their family! • If there are any changes they may: <ul style="list-style-type: none"> • Get lost • Get upset or angry • Get scared or panic • Make mistakes that are dangerous • Accuse others of mis-behaving, breaking the law • Make things up to explain what happened • Demand to do it ‘their way’ • Refuse to let someone step in and tell them what to do • Get so involved with talking to a passenger, they forget to watch the road
<p>Emerald</p> <ul style="list-style-type: none"> • Change is clear to others • Flaws are not so noticeable to the person • Still can pull it together at times • Has some social graces, but makes mistakes • Uses what is seen to try to figure out what to do • Going into the past 	<p>Moderate Dementia Or Significant Depression Repeats some steps Skips some steps Thinks it’s OK Fears being disrespected Gets lost in time & place Goes back in time Mis-remembers & makes stuff up to fill in Wants to be ‘normal’ Wants to be in the ‘action’ Wants to be helpful and involved OR left alone to do what they want to do Do things or supervise others doing things</p>	<ul style="list-style-type: none"> • Can do many of the mechanics of driving BUT can’t hook it all together to drive safely • Can get in and turn on the car, can put it in gear, but may be looking out the front while it is going in reverse • Can ‘know’ how to ‘change the oil’ BUT will make mistakes doing it – empty out the oil, put in a new filter, then fill up the crank case with anti-freeze • May turn on the windshield wipers when trying to change the radio station • Try to get in a car at the mall that looks like one they owned several years ago – may even try to break in • Become upset when they can’t find a car that they had when they were a teenager – accuse a family member of stealing it • Try to manually shift an automatic transmission • Stop to fill up with gas at every station • Forget to pay one time, then overpay the next • Sit at the entrance ramp and wave at the passing cars, then get out to flag help down on a busy highway

<p>Amber</p> <ul style="list-style-type: none"> • In the moment • All about sensation • All about exploration • No safety awareness • No ability to understand another person's point of view • Do what is liked – avoid what is disliked 	<p>Mid Dementia</p> <p>Into touching, fiddling, getting into stuff</p> <p>Not aware of the bigger picture</p> <p>Not aware of how their actions affect other things</p> <p>Not aware of danger or risk</p> <p>Likes what they like – doesn't know when to stop</p> <p>Wears you out, if you don't take breaks</p>	<ul style="list-style-type: none"> • Wants to mess with the radio – pushing all the buttons and switches on the dashboard and console • Gets in the glove compartment and takes everything apart • Rolls the windows up and down and throws things out, then tries to open the door to go get them • May suddenly shift gears or even put the car in reverse, with little or no warning • May start off wanting to drive the car, but then may just let go of the wheel and start to fasten and unfasten their seatbelt over and over • Pulls all the knobs off the controls and puts them in their pocket • Says they want to "Let's go!" but won't get in the car • Will not get in the car for over 2 hours, but then suddenly gets into the car and says, "come on, let's go!"
<p>Ruby</p> <ul style="list-style-type: none"> • No fine motor only big movements – over and over • Limited words, repetitive actions or motions • Moves forward, not backing up • Loses all depth perception • Startles easily 	<p>Severe Dementia</p> <p>More interested in big movement than little – getting in/out of the car</p> <p>May still like the radio, but volume and station are important</p> <p>You will need to think about what they might be trying to tell you/need since they will not know or be able to show you</p>	<ul style="list-style-type: none"> • Can copy you for simple actions – hands on the steering wheel, waving to others • Singing along with a favorite station, may clap or hum along • Falling asleep on long road trips • Wanting to get out as soon as they get in... • "Are we there yet...are we there yet?... Are we there yet?..." over and over – not waiting for an answer • If you get the car in gear, they may be able to steer for a while, but they can't shift gears, and they can't do it again, unless you show them how • May repeat something they see or hear, over and over – "The Wheels on the Bus Go Round and Round".... • May crawl into the car, across the seat, and out the other side – crawl out and do it again and again
<p>Pearl</p> <ul style="list-style-type: none"> • Unable to actively move • Limited awareness of the world around them • Moments of alertness • Aware of sensations at times • Slow to respond • Ruled by reflexes • Can over-react 	<p>Profound Dementia</p> <p>Limited movements and responses</p> <p>Reactions can seem extreme</p> <p>Less alert most of the time BUT there are moments of clarity and connection</p> <p>Still needs some stimulation, but careful monitoring is needed</p>	<ul style="list-style-type: none"> • Unable to sit up in the car, leans into the door or onto a partner • Generally not aware they are even in a car, but once in a great while will look out and say something like "It's that beautiful", or "Pretty, pretty, pretty" • May like the feel of riding in the car, especially on a long highway trip – the hum of the engine, the rhythm of the tires, drumming of rain on the roof • May like to feel the wind and sun on their face as you slowly cruise • May like to sit and cuddle in the backseat, with a blanket over them, like you used to do when you went to a drive in movie • May hum to old tunes on the radio • May yell out with bumps or direction changes • May suck down some of a milkshake you get at a drive thru • May sniff and get alert when passing by some fresh cut grass, newly mown hay, cinnamon scented bakery, or wood smoke

CEAA Ability Domains and Items¹

Memory
1. Reminisces about people, events and personal experiences
2. Recited poems, songs or jokes
3. Invents (fabricates) realities about the past, present or future
Attention
4. Stays engaged (1 = less than 5 minutes; 2 = 5-10 minutes; 3 = between 10-30 minutes; 4 = more than 30 minutes)
Language (spoken and body)
5. Produces complete grammatical sentences when writing
6. Produces complete grammatical sentences when speaking
7. Uses key words and simple sentences with appropriate body language
8. Uses humor (wit, joking, irony & sarcasm) when writing
9. Uses humor (wit, joking, irony & sarcasm) when speaking
10. Provides elaborate/informative descriptions of objects, actions or events
11. Uses facial expressions and body language to communicate/indicate understanding
12. Makes vocal and body responses to music
Psychosocial
13. Attracts/holds attention of other(s) when telling a story, joke or anecdote
14. Attracts/holds attention of other(s) when singing a song
15. Attracts/holds attention of other(s) when dancing, performing or playing an instrument
16. Responds to (comments, shows compassion for, reflects or elaborates on) productions of others
17. Shows self-esteem/confidence
18. Shows interest in/concern for grooming and clothing
Reasoning/Problem Solving
19. Shows insight into problems (puzzles or compositions in visual & performing arts) by commenting on plans, designs, spaces & objects, by analyzing music, suggesting solutions, reasons & explanations
20. Makes clear choices and decisions
Emotions
21. Uses facial expressions to communicate moods and emotions
22. Expresses moods and emotions in visual displays
23. Expresses moods and emotions in music
24. Expresses moods and emotions in anecdotes and stories
Culture (spirituality, religion, traditions, customs)
25. Shares deep thoughts and speaks from the heart through words, the arts or through movement
26. Shares wisdom and life experiences, teaches lessons about life
27. Engages in discussions on the meanings of culture, spirituality, religion, traditions and customs

¹Items 5 and 8 were omitted from the analyses because they deal with written communication, which is not a component of the programs that were evaluated. The CEAA is copyrighted by ArtsScience Press (2008, 2011).