

The Effect of Healing Gardens and Art Therapy on Older Adults With Mild to Moderate Depression

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This study evaluated the effect of garden walks alone, garden walks with guided imagery, and art therapy on mild to moderate depression in older adults. Focus group interviews at the end of the 6-week intervention suggest that all 3 interventions were helpful to participants with mild to moderate depression. **KEY WORDS:** *art therapy, depression, healing gardens, older adults* *Holist Nurs Pract* 2007;21(2):79–84

One of the fastest growing segments of the US population is adults older than 65. Their number is expected to roughly double by 2030.¹ Moreover, this age group is forecast to grow from about 13% of the total population in 2000 to 20% in 2030, and to remain above 20% for at least several decades thereafter. In the next 5 to 20 years, 76 million baby boomers will reach retirement and seek alternative ways to meet their own personal needs. One glaring characteristic of this demographic group is the growing incidence of depression and its physiological consequences of life-threatening diseases, as well as the impact on families and communities that care (or will care) for those with this ubiquitous, concealed mental illness.

Improving health and well-being among those older than 65 will be a challenge economically and physically for those in the healthcare professions. Finding cost-effective, self-directed, and safe methods to alleviate depression will assist healthcare providers and others to facilitate health and well-being in older adults.

The purpose of this study was to determine the effects of 2 different types of garden walks and an art therapy comparison intervention on depression in older adults. Three groups were studied: Group 1 walked the garden alone; Group 2 walked the garden with a guided imagery leader; and Group 3 participated in art therapy sessions. Researchers used

3 methods to determine the effect of each intervention on depression—focus group interviews, the Geriatric Depression Scale, and personal stories of sadness and joy preintervention and postintervention. This article presents the results of the focus group interviews.

BACKGROUND AND SIGNIFICANCE

Depression is a common problem among older adults.² The prevalence of major depression among adults older than 65 is approximately 15% nationally.³ In those elders who have serious comorbid conditions, such as diabetes, hypertension, emphysema, and osteoarthritis, the prevalence increases to 25%. Suicide in elderly men is secondary to major depression and occurs at a rate of 12 per 100,000, 5 times the national average.⁴ Among elders, depression can be caused by social isolation occurring through the loss of friends, relatives, and loved ones, and also through debilitation resulting from chronic disease.⁵

Depression is an illness that involves the body, mood, and thoughts. It affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. Older adults often are unwilling to discuss feelings of depression because of the stigma attached to mental illness.^{6–9} The economic cost of this disorder is high, but the cost in terms of human suffering cannot be estimated.

Depressive illnesses often interfere with normal functioning and cause pain and suffering not only to those who have a disorder but also to those who care about them.¹⁰ Serious depression can destroy family

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TABLE 1. Signs and symptoms of depression most common in older adults

- Persistent sad, anxious, or “empty” mood
- Decreased cognition
- Difficulties with activities of daily living
- Disorganized thoughts
- Emotional lability
- Inappropriate behavior
- Feelings of hopelessness, pessimism
- Feelings of guilt, worthlessness, helplessness
- Loss of interest or pleasure in hobbies and activities that were once enjoyed, including sex
- Decreased energy, fatigue, being “slowed down”
- Difficulty concentrating, remembering, making decisions
- Insomnia, early-morning awakening, or oversleeping
- Appetite and/or weight loss or overeating and weight gain
- Thoughts of death or suicide; suicide attempts
- Restlessness, irritability
- Persistent physical symptoms that do not respond to treatment, such as headaches, digestive disorders, and chronic pain

life as well as the life of the ill person. Depression in later life has serious consequences, including patient and caregiver distress, exacerbation of existing diseases, cognitive disorders, increased healthcare costs, and increased mortality related to suicide and mental health issues.¹¹ The relationship between geriatric depression and nonsuicidal mortality is well supported for myocardial infarction, where depression elevates the mortality risk by a factor of 5.¹²

Many older adults do not seek help for their depressive symptoms but often present to their primary care provider with somatic symptoms that are not resolved with treatment because the underlying problem of depression is not addressed.¹³ Table 1 lists the signs and symptoms of mild to moderate depression.

Relaxation techniques, distraction therapies, and behavioral modification have been demonstrated as effective in reducing depression among older adults.^{14–16} Exercise has also been shown to be effective in reducing depression in older adults.¹⁷

Gardens have been studied and have proven to be effective in assisting persons to relax, to be distracted from negative stimuli, and to generate positive thoughts, thereby improving mood. Groenewegen et al¹⁸ found that a positive relationship exists between the extent of green space in the living environment and physical and mental health and longevity.

In Japan a healing intervention called Shinrin-yoka, which means walking in the forests to promote health, is a form of relaxation used by many older adults.

Morita et al¹⁹ studied Shinrin-yoka for its psychological effects. They found that walking in the forest was advantageous with respect to chronic stress and depression. The researchers state that walking in the forest has no requirements and anyone can take part in this simple therapy. While this study did not determine whether the positive effects of forest walking were due to visual factors of scenic beauty alone or a mix of more complex factors, the study did demonstrate reductions in hostility and depression scores. One of the control groups in this study exercised daily as its intervention and the hostility and depression scores in this group were not affected as significantly as in those who participated in the garden walk. This supports the theory that walking in the forest separate from the effects of exercise reduced depression and hostility.

Art therapy is another intervention that has been shown to decrease depression in the elderly by allowing them to express feelings of sadness and loss.^{20–23} Tate and Longo²⁴ theorized that art therapy can help fulfill many goals of psychosocial nursing, such as recovery and the instillation of hope for those with depression. Art holds the potential for enhancing the quality of treatment for clients by increasing expression and facilitating insight. In one study, an art therapy intervention enhanced psychological well-being by decreasing negative emotional states and enhancing positive ones in a group of older women with breast cancer.²⁵ The study presented here examined and compared 2 different approaches to garden walking and art therapy sessions to determine the effects of these therapies on elders with mild to moderate depression.

METHODS

The project was developed by research faculty at the Christine E. Lynn College of Nursing, at Florida Atlantic University, and program staff at The Morikami Museum and Japanese Gardens in Delray Beach, Fla. The Morikami Museum and Japanese Gardens features a 200-acre park with walking paths through 20 acres of Japanese-style gardens, the Gulf Stream Bonsai Collection (largest public tropical bonsai exhibit in the country), koi ponds and waterfalls, and many places to sit and reflect. Funding for this project came from the Institute for Museum and Library Services in Washington, DC.

Human subject approval for the study was obtained from the Florida Atlantic University Institutional

Review Board. The study used the museum's garden environment to examine the effects of walking through a museum garden, in comparison to art therapy, on elders experiencing depression. The hypothesis for this study was as follows: Elders with depression who regularly walk in a garden for the intended purpose of improving their mental health and well-being will succeed when provided with one or more of the following:

- Walks alone in a garden setting
- Guided imagery walks in a garden setting
- Art therapy

Table 2 presents a summary of the intervention for each group in the study.

Sixty participants were recruited via flyers, newspaper articles, and through local senior centers to participate in the research. Inclusion criteria were diagnosis of depression from a healthcare provider or self-diagnosis of depression, ability to walk 7 to 10 miles, and ability to get to the garden twice weekly for 6 weeks.

The mean age of participants in all 3 groups was 75 years; 26% were married, 42% were not married, and 9% were widowed. Of the group, 69% were self-diagnosed with depression and 31% were diagnosed by a physician.

Each participant was randomly assigned to 1 of the 3 groups (walk alone, guided imagery, or art therapy) at the initial interview to determine eligibility and to sign informed consent. At that time, participants were asked to tell stories of the joy and sadness in their lives in the past and present and of their hopes for the future. They also completed the Geriatric Depression Scale.

Three 6-week sessions of each group were held to accommodate the desired 60 participants. The two walking groups met on different days of the week to avoid contamination. The art group met at a separate location. Each group in the study had 6 to 9 participants for a total of 20 participants per intervention. Focus groups were held, on the last day of the 6-week intervention period, individually for each group in the study. Focus group sessions also explored how this museum/garden experience fit into participants' everyday lives and what could be done to make the experience more appealing to community members. After the focus group meetings were completed, each participant was given a 1-year membership to the Morikami Museum and Japanese Gardens as a gift for participation.

TABLE 2. Summary of interventional groups

Group 1

The first group will walk through the garden without ongoing walking guidance after their first walk. The first walk will be led by the principal investigator to familiarize the elders with the path. From then on, the group of participants will be met by the principal investigator and instructed to spend about 1 hour in the garden, checking with the principal investigator to let her know that they have completed the walk. Participants will be encouraged to walk at their own pace and stop as needed for rest and reflection. They may or may not want to speak with others in their group. Walking time will be recorded for each participant.

Group 2

The second walking group will move through the garden with the project director who will use guided imagery to call attention to the garden experience. The guided imagery script will be approved by Hoichi Kurisu, master Japanese Garden designer and a consultant on this study, prior to use in the intervention. In this instance, the group will all stay together throughout the walk, sit and rest at appropriate intervals, and listen to the guided imagery script. The project director will record the length of time for each walking session at the completion of the session.

Group 3

Group 3 will participate in an art therapy program. This group is used as a control group. It is well documented that art therapy reduces depression in elders; therefore, comparing results of art therapy in depressed elders to the 2 groups that walk in the garden will allow the team to conclude whether or not similar benefits occur for these other groups. During the first session, each participant will be asked to draw a time line showing themselves as young adults, as middle aged, and as seniors. During the second through fifth sessions, the group members will be directed to draw how they would like to change anything in their time line image and/or elaborate on what was very good about that time. The last session will be a review for participants to look at their series of drawings and discuss them. The art therapist will complete an individual report of their participation and the evaluation of the drawings.

Focus groups were held for 2 hours on the last day of participation for each group in one of the Morkiami classrooms for the garden groups and at Florida Atlantic University for the art therapy group. Each group was asked the same set of open-ended questions:

- What did you like about this program?
- What did you find most helpful in terms of improving mood and lifting sadness?
- What did you not like about this program?
- What would you like to see done differently when this program is offered again?

- Do you have any general comments you would like to make about the program and your experience?

RESULTS

The overall themes from Group 1, the walk-alone group, included enjoyment of walking, something to look forward to, a sense of peace and serenity in the garden, and providing a time for reflection about the meaning of life. Interestingly, many of the older adults in Group 1 had never spent time in reflection before and this new experience provided them with the ability to review their lives and identify good and strong reasons for feeling satisfied. Several were able to reflect on problems and “put things in perspective,” which assisted them in realizing that overall their lives were “good and blessed.” In one case, a woman who was estranged from her grandson was able to reflect on this and decide that it was not something she could change and therefore she had to “let it go” and move on to make her last years happy. She stated she would always miss him and their relationship but she could be happy with things as they are now and after this time of reflection was determined to do so.

Statements From Group 1

- I like being in the garden before anyone else is there.
- I liked the peace and serenity of the garden.
- Every time I came to the garden I saw something different. Each day the garden had different surprises for me. When the weather was cloudy the garden looked entirely different than when it was sunny.
- When I want to be peaceful in my heart now, I just stop and think of the garden.
- I had good days and bad days before the garden but now, I really look forward to my own time and interaction with the garden. I actually think I have become addicted to coming here and spending time reflecting about my life.
- I learned a lot about myself in the garden. The walk gave me time to think about my life (the good and the bad) and to come to terms with who I am and how I lived my life. I had not done this before and am so grateful to have had this opportunity.
- I think everyone should have the wonderful experience of walking in this peaceful garden. I loved the sound of the bamboo—one day when it was a little windy, the bamboo was swishing and cracking and I stood there for over an hour.

Group 2, the guided imagery group, stated that the guided imagery encouraged them to leave problems in the past behind as they crossed the bridge at the beginning of the walk and to focus on a pleasant and

fulfilling future. One person in the group mentioned that as they were walking together one day they saw an alligator in the lake. The guided imagery leader made the statement that there are always surprises under the surface of life, some pleasant, some dangerous, some sad, that pop up to the surface from time to time. Being able to look at life’s surprises as part of the life’s cycle and realizing that everyone has challenges to deal with helps make life more bearable and meaningful. This group said one of the benefits of the garden walk as a group was that they shared feelings about getting older and the problems they faced. Knowing that others were experiencing the same types of problems encouraged them to see their own lives in a more positive way.

Statements From Group 2

- It was so wonderful to meet all of these new people. We have shared so much about our lives. It helps me to see that I am not alone in the way I feel about things.
- The day we saw the alligator was interesting. I realized that there are always surprises in life and that we just have to handle them as best we can and not to worry so much about every little thing.
- The garden and my new friends have given me insight into my life and helped me to see that I have so much to be thankful for.
- Christine (the guided imagery leader) was so wonderful. We have a good time and enjoyed the beauty of the gardens.
- When we closed our eyes to listen to the nature sounds and see ourselves as a small part of this larger world, I was able to see myself as connected to everything even though I am only a small part of it all.

Finally Group 3, the art therapy group, discussed the building of relationships during the art therapy sessions. This group felt that exploring who they were, with an initial drawing of self, then drawing different parts of their lives each week of the class, and finally drawing what they had become in the 6 weeks of the class, helped them reveal strengths and uncover sorrows that they did not know they had. This group felt that the art therapy sessions were cathartic and the shared experience with other members in the group was helpful in this process. One group member had recently lost her husband. She stated that she felt disconnected from life and struggled to “simply get up every morning.” By the end of the 6-week art therapy period, she was able to plan a trip to Israel where she would work in the Israeli army for a month.

Statements From Group 3

- Coming to art therapy is the best part of my week. I have really enjoyed learning more about myself and that others share many of my problems.
- The art therapy classes were very good. They helped me to learn more about myself and what was really going on. It is surprising how you hide things from yourself.
- Myra (the art therapist) was great and she was so patient and kind. She helped us delve into things and helped me make peace with some of my issues. I feel more in control of my life and the decisions I am making now.
- The whole group and the art therapy helped me to become stronger than I was. I felt so empty since my husband died and out of control as though my life would never have meaning again. These classes have put some perspective on my feelings and even though I am still sad and would give the whole world to have my husband back, I realize I can go on and I can have a good life. It will not be easy, and I know there will be times when I will feel out of control again, but these sessions have been a big help.

DISCUSSION

Participants in all 3 groups felt as though the interventions they experienced were helpful in relieving depression and in improving mood and overall attitude concerning life. There were differences expressed by participants of each group. Groups 2 and 3 participants who experienced group-based activities and Group 1 participants who experienced a solitary activity each found benefits linked with participation. Likewise, the 2 groups in the garden walk intervention and the art therapy group all experienced benefits even though the experiences were different. Further differences between groups will be explored in the story data and scores on the Geriatric Depression Scale. However, based on the focus group statements it would appear that all 3 interventions have benefit for old adults with depression.

One point to make is that the walk alone group is very cost-effective as no group leader is required and no special training or education is needed. Local gardens could develop walking programs for older adults, which would be helpful to those with depression. Simply encouraging mildly to moderately depressed older adults to get out of the house and walk may provide some relief. Nurses who work with older adults who experience depression can suggest walking in a garden several times a week as a therapy to allow for self-reflection and problem solving. Being in a garden is a peaceful exercise that allows for the appreciation of natural beauty.

When available, providing a guided imagery garden walk may reduce depression in older adults. Guided imagery could be done in person or guided imagery tapes could be developed to guide the older adults when walking. A combination of guided imagery walks and private reflective walks could be prescribed to determine which works best for any individual person.

Art therapy classes are the costliest intervention in this study and finding certified art therapists able to provide experiences for older adults with mild to moderate depression might be difficult. However, when possible, this intervention could be useful.

Nurses should recognize that depression among older adults is common and increases the risk for morbidity and mortality in this group. Asking patients about depression or low mood may open the door for older adults to discuss feelings of sadness and inability to see the joy in life. Simple, inexpensive, safe interventions such as garden walks, guided imagery garden walks, or art therapy are effective for reducing depression in older adults.

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