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Practice Perspctive

Recreational Therapy for Dementia-Related Symptoms in a Long-Term Care Setting

A Case Study

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Abstract

As the population ages, more individuals with dementia are admitted to long-term care (LTC) settings, uprooted from familiar routines and home environments. Therapeutic programming must prioritize the provision of opportunities for individualized leisure experiences to aid in this transition. This case study examines a recreational therapy-based, therapeutic gardening treatment for a 76-year-old female with dementia presenting with behavioral disturbances, depression, anxiety, and difficulty acclimating to LTC. Over six weeks, the resident participated in 40- to 60-minute therapeutic gardening sessions three to four times per week to improve mood, decrease behavioral disturbances, and improve acclimation to the facility. By discharge, the resident met each treatment goal and significantly decreased symptoms of depression and anxiety as measured by the Geriatric Depression Scale (GDS) and Beck Anxiety Inventory (BAI). Implications for practice are discussed.

Keywords

Anxiety, case study, dementia, depression, long-term care, recreational therapy, therapeutic gardening

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Introduction

Around 47 million people have dementia worldwide, and there are 9.9 million new cases annually (WHO, 2017). Dementia presents with declines in memory, thinking, and behavior, and is often comorbid with depression and anxiety (Scrutton & Brancati, 2016). This syndrome and the associated psychosocial symptoms have significant impacts on individuals and their caregivers, including poor outcomes of medical interventions, increased burden on caregivers, earlier admission to long-term care (LTC), and exacerbation of functional deterioration (Springate & Tremont, 2014; Winblad et al., 2004).

Admission to a new living environment, such as a LTC facility, may also aggravate symptoms of dementia, as maintaining continuity and familiarity helps to curtail feelings of disorientation. Evidence suggests that a resident's sense of self-determination is important to psychosocial adaptation to LTC settings (Chao et al., 2008). Leisure and recreation offer opportunities for the purposeful engagement, sense of autonomy, competence, and relatedness that are vital to healthy aging; however, a lack of access to leisure can threaten an individual's well-being (Dupuis & Alzheimer, 2008).

Recreational therapy (RT) uses meaningful, goal-directed interventions that involve clients in recreational activities to improve mental, physical, emotional, and social domains (Austin, 2013). RT may be an ideal approach to assist in acclimation to LTC residency and to decrease signs and symptoms of depression and anxiety. This case study describes a six-week RT treatment with one LTC resident with dementia who presented with agitation, signs and symptoms of anxiety and depression, and difficulty acclimating to the facility. For anonymity, this resident will be referred to as Jill, and any identifying aspects of the agency have been removed. Implications for practice and future research are discussed.

Resident Description

Jill is a 76-year-old Caucasian female with a diagnosis of moderate stage dementia with behavioral disturbances, congestive heart failure (unspecified), type II diabetes mellitus, and generalized muscle weakness. Jill was initially admitted to the skilled nursing facility (SNF) for post-acute rehabilitation, including physical therapy (PT) and occupational therapy (OT), due to a history of falls, acute gastroenteritis, generalized muscle weakness and associated difficulty with mobility. Approximately two weeks later, Jill was discharged from prior therapies and transferred to LTC per family request.

After discharge from OT and PT, Jill was able to self-propel her wheelchair to navigate her new living environment and also participated in a restorative walking program, ambulating 300 to 400 feet with a Certified Therapeutic Recreation Specialist (CTRS) three times per week. However, during her initial three months in LTC, Jill exhibited repeated behavioral disturbances (i.e., confusion, hallucinations, delusions, agitation), recurrent falls, and verbalizations of dissatisfaction with the facility and a desire to return home. According to family members, the resident exhibited behavioral disturbances prior to admission. However, these behaviors seemed to be exacerbated by her new living circumstances, negative reactions to safety regulations, and general disorientation related to the setting, staff, and situation. The resident also exhibited signs and symptoms of depression and anxiety, as diagnosed by the unit physicians and documented by floor nurses. Jill's pharmaceutical interventions included a con-

tinued prescription of Xanax for anxiety administered PRN, as well as more recent prescriptions: Zoloft to treat depressive symptoms (prescribed one month prior to RT treatment) and Seroquil to treat agitation (prescribed one week prior to RT treatment). In her leisure time, Jill received encouragement from activity staff to participate in independent and group activities of interest identified in her admission activity assessment. However, Jill's participation in social activities varied frequently based on her mood. A physician order for RT services was issued to address Jill's increasing behavioral disturbances, lack of acclimation to the facility, and signs and symptoms of depression and anxiety.

Assessment and Planning

Standardized assessments for this study included the Beck Anxiety Inventory (BAI) (Beck et al., 1988) and Geriatric Depression Scale-Short Form (GDS-SF) (Sheikh & Yesavage, 1986). The BAI is a 21-item scale measuring self-reported anxiety using a Likert scale ranging from 0 to 3. Raw scores fall between 0 and 63, indicating specific classifications of minimal anxiety (0 to 10), mild anxiety (11 to 19), moderate anxiety (20 to 30), and severe anxiety (31 to 63). This scale was tested to be highly internally consistent (Cronbach's alpha = .94) and acceptably reliable (r = .67) (Fydrich, Dowdall, & Chambless, 1992). The GDS-SF consists of 15 questions that are highly correlated with depressive symptoms, and scores result in classifications as normal (0 to 4), mild depression (5 to 8), moderate depression (9 to 11), and severe depression (12 to 15). The validity and reliability of this assessment is supported through its extensive use in clinical practice and research (Lesher & Berryhill, 1994). Evidence shows that the GDS is sensitive and specific to the diagnostic criteria of depression, and this scale has been successful in differentiating depressed and non-depressed adults (r = .84, p < .001) (Greenberg, 2012; Shiekh & Yesavage, 1986).

Jill scored a 27 out of 63 on the BAI, indicating moderate anxiety, and a 12 out of 15 on the GDS, suggesting severe depression. During these assessments, Jill identified personal sources of anxiety and difficulty with acclimating to her residency in LTC, stating,

> Fear of losing control is huge for me. I'm scared of my family dying and I'm not there. I want to do more things on my own. I want more control over my life, and I want to go home.

Behavioral disturbances and falls were also tracked in order to compare the number of occurrences before, during, and after RT treatment. An agency-specific Behavioral Symptoms Assessment was also referenced to gain insight into consistent behaviors. The CTRS identified behavioral symptoms that were problematic, which included exit seeking and depression. Furthermore, the seriousness of behavioral symptoms were specified as distressing and disruptive to self and to others, and interfering with medical care. These symptoms were deemed unprovoked and likely to be related to factors such as dementia, insomnia, and her departure from normal routines.

Finally, an initial RT assessment clarified Jill's subjective description of her interests, motivation for leisure participation, personal goals for RT treatment, and perceived barriers to leisure participation. The resident self-rated involvement in leisure activities as very important, but described feeling limited by her memory, physical defi-

cits, and current living environment. Her described interests included gardening, being outdoors, making jewelry, crocheting, and listening to music.

Based on assessment findings, the therapist responsible for treatment developed the following goals and objectives:

- **Goal 1: To decrease signs and symptoms of depression**
  - Obj 1: Resident will exhibit positive emotions during at least 50 % of each session as evidenced by smiling, laughing, and positive comments by 10th session.
  - Obj 2: Resident will exhibit positive emotions during at least 70 percent of sessions as evidenced by smiling, laughing, and positive comments by discharge.
  - Obj 3: Resident will limit negative self-talk to 1 time or fewer by discharge.

- **Goal 2: To decrease signs and symptoms of anxiety**
  - Obj 1: Resident will identify 3 positive coping mechanisms for anxiety symptoms by the end of the first week of RT treatment.
  - Obj 2: Resident will verbally state the use of identified coping mechanisms by week 3 of RT treatment.

- **Goal 3: To increase acclimation to LTC residence**
  - Obj 1: Resident will participate in group activities and/or interventions at least 2x/week for the duration of RT treatment.
  - Obj 2: Resident will verbally express acclimation to facility by discharge.
  - Obj 3: Resident will verbally identify 2 or more sources of positive engagement for improved acclimation to facility by discharge.

Implementation

Over the next six weeks, Jill willingly participated in 17 RT sessions, including therapeutic gardening with elements of coping skill education and leisure planning. Weekly calendars indicating the day, time, and type of intervention for each day were utilized to encourage feelings of autonomy and competence and to promote readiness when the therapist arrived to begin each session. During the course of treatment, Jill continued on prescribed medications but did not receive additional therapies. RT sessions generally lasted 40 to 60 minutes per day, approximately three to four times per week. Jill occasionally required encouragement to attend gardening sessions due to fatigue or negative mood states; however, therapeutic conversation and reiterated benefits of leisure participation on overall health and well-being provided adequate prompting to attend sessions. Once in the garden, the therapist provided minimal assistance and instruction with gardening tasks, led therapeutic discussion, and practiced safety measures. Thus, Jill was empowered to utilize and share her prior knowledge and skills to help the garden thrive as independently as possible.

Considering the resident's presenting symptoms and initial distrust of facility staff, the therapist was intentional about developing therapeutic rapport to facilitate feelings of safety, empathy, and respect. The intent was also to develop a relationship that encouraged collaboration to determine and reach treatment goals. During the first ses-

sion, the therapist involved the client in discussions about her care and encouraged active participation in goal setting. Emotional expression was met with empathy and understanding in order to develop a sense of security and support. Throughout sessions, the therapist continued to encourage resident empowerment through facilitated opportunities to voice her needs for RT treatment sessions and for additional areas of her life in LTC. In all aspects of the therapeutic relationship, the therapist purposefully communicated genuine care and investment in the well-being of the resident. By the end of treatment, the therapist had developed a relationship rooted in a foundation of clear expectations, open communication, and mutual trust.

Evidence-Based Practice

Recent research states that merely experiencing daily contact with nature can have a significant and long-lasting impact on mental and physical health (Beyer et al., 2014). Therapeutic gardening is one avenue to provide older adults with an opportunity to experience the inherent benefits of the outdoors, whilst gaining specific rewards that stem from intentional, individualized therapy. This type of intervention has been shown to promote physical activity, stimulate the senses, decrease stress, and spur positive reminiscence (Epstein, Hansen, & Hazen, 1991; Fisher Center for Alzheimer's Research, 2017). Recent studies also document the role of horticultural therapy and garden environments in reducing pain, stress, agitation, need for PRN medications, and falls (Detweiler et al., 2012). Research also supports the therapeutic use of gardening in individuals with dementia to improve engagement and affect (Gigliotti & Jarrott, 2005). Other research has highlighted the positive outcomes of therapeutic gardening on older adults with dementia, particularly if those individuals have a history of enjoying gardening (Hall et al., 2016).

The therapist in this case study utilized evidence-based therapeutic gardening techniques to address Jill's specific needs. These therapeutic gardening techniques involve simple tasks, such as choosing seeds, preparing the soil, planting, and tending the garden. According to the philosophy behind this type of therapy, tending to a living plant empowers individuals who often rely on others for assistance with daily needs; additionally, plants provide the type of tactile, olfactory, and optical sensory stimulation that often benefits individuals with dementia (Jarrott & Gigliotti, 2010). Furthermore, therapeutic gardening exposes clients to different colors, shapes, sizes, and heights of plants and flowers that increase interest and visibility. In accordance with recommendations from the literature on therapeutic gardening with individuals with dementia, the therapist directed attention to sensory experiences with the garden to trigger memories, stimulate different parts of the brain and to bring attention to the present experience (e.g., inquiries about likes/dislikes, how the environment feels/smells/looks); further, Jill was encouraged to select plants based on her own memories and preferences in order to increase personal commitment and comfort in gardening projects (Kwack, Relf, & Rudolf., 2004). Evidence-based adaptations included providing familiar gardening tasks and tools, guided formulation of small, attainable goals, and facilitation in a safe, accessible, and distraction-free environment (Burgess, 1990; Kwack et al., 2004).

Cognitive behavioral therapy (CBT) played a crucial role in addressing symptoms of anxiety and depression. This type of therapy concentrates on challenging clients' negative thoughts and assisting them in replacing negative thoughts with more adap-

tive approaches to perceiving and processing situations. CBT has been successfully implemented to treat depression in persons with dementia (Orgeta, Spector, & Orrell, 2011; Teri & Gallagher-Thompson, 1991). However, implementation of CBT with individuals with dementia may require certain adaptations to reduce the cognitive load. In this case study, the therapist employed repetition, reduced negative thought rumination through stimulating alternative thoughts, offered concrete examples, monitored retention, and provided aides such as schedules or written notes to increase retention (Snow, Powers, & Liles, 2006). In this case, CBT also involved identifying triggers, behaviors, and reinforcers, and addressing negative patterns by generating alternative responses to preceding factors.

According to the Progressively Lowered Stress Threshold (PLST) Model (Gerdner, Buckwalter, & Hall, 2005), an individual's ability to tolerate stress declines with cognition. Thus, stressors accumulate as the day continues, and stress responses escalate from fidgeting and restlessness to severe agitation. Through intentional combination of therapeutic discussion and gardening interventions, the recreational therapist provided coping skill education and guided leisure planning as alternative methods to decrease anxiety and stress responses to triggering scenarios. As leisure activities provide opportunities for freedom of choice, self-expression, and creativity and are related to greater psychological well-being and lower levels of depressive symptoms in older adults, these types of coping modalities are encouraged in this population (Dupuis & Smale, 2013).

Results and Evaluation

Over a six-week period, 17 therapeutic gardening interventions were conducted, including garden planning, preparing garden beds, sowing seeds, and tending plants. According to recommendations in the literature, these tasks were designed to promote engagement, autonomy, and personal investment through offering opportunities to exercise freedom of choice and to complete tasks independently (Deci & Ryan, 2000; Dupuis & Smale, 2013; Kwack, Relf, & Rudolf, 2004). For instance, Jill was encouraged to autonomously choose eight flowers and vegetables to plant in a raised garden bed. This served the additional purpose of increasing the likelihood of her familiarity with and confidence in completing the tasks necessary for successful growth in each plot. Accordingly, Jill selected plants with which she had experience tending in the past. The therapist also encouraged reminiscence through prompting questions regarding Jill's personal history of gardening with family members throughout her life. Therapeutic discussion during each session was introduced gradually by guiding the resident's focus from sensory stimulation (e.g., rustling leaves, warm sunlight) to reminiscence to conflict resolution strategies and CBT techniques. Through implementation of aforementioned CBT techniques (i.e., repetition, retention monitoring, negative thought replacement), Jill identified antecedent factors to her symptoms of anxiety and depression, including feeling "unwanted" by or burdensome to family and perceiving a lack of control over her daily needs, lifestyle, and overall health. RT addressed these triggers through adjusting Jill's perception of her lifestyle and abilities, as well as through equipping Jill with methods of communicating her needs and feelings to staff and family members.

Metaphorical language guided therapeutic discussion related to "planting new roots" in the LTC environment. For instance, therapist and resident engaged in a com-

parison of the attention and care one must take to ensure plants flourish in new environments or tough soil and how this relates to how one must approach new phases of life. While some plants might initially have difficulty thriving in unfamiliar environments, careful tending and utilization of resources can revitalize the plant anew. During this discussion, Jill was able to identify personal resources for rejuvenation and support, such as repaired familial relationships, participation in meaningful leisure, and the formation of new relationships with fellow residents.

In accordance with *Dementia Practice Guidelines (DPG) for Recreational Therapy,* (Fitzsimmons, Sardina, & Buettner, 2014), Jill was discharged after evaluations showed all goals were met at the end of six weeks of treatment. Signs and symptoms of both depression and anxiety decreased significantly, as evidenced by positive comments, smiling, and laughing during at least 75% of each session, and Jill identified and demonstrated an acquired toolbox of positive coping skills (i.e., asking for help, deep breathing, religious practices, diversional hobbies of music and jewelry making). This progress was also marked by a 53% improvement of Jill's GDS score to a 4 out of 15, no longer indicative of depression; as well as a dramatic improvement in her BAI score to a 4 out of 63, indicating low anxiety with an overall reduction of 36%.

Jill attained her goal of acclimating to residency in LTC by independently initiating positive conversation about her acclimation, stating that she began to mend relationships with her family by sharing her acceptance of her living situation and intent to make the best of her circumstances. She expressed, "I've made peace with it, and I think I could be satisfied living out my days here. I'm no longer angry." Jill attributed this perceived change to her RT treatment, articulating that it gave her "a sense of purpose, confidence, and enjoyment."

Finally, from admission to the start of RT treatment (approximately three months), Jill had experienced seven falls and 19 documented behavioral disturbances, including temporal disorientation, yelling, wandering, refusing medication, delusions, and instances of agitation generally related to her desire to return home. During treatment, these behaviors dramatically decreased, as Jill had no documented falls and only two instances of documented agitation and/or disorientation in the duration of RT treatment.

Following DPG recommendations (Fitzhimmons, Sardina & Buettner, 2014), a follow-up plan was initiated to integrate the resident into routine activities in order to maintain activity levels, social interactions, and purposeful engagement now that behaviors and symptoms had stabilized. Education was also provided to appropriate staff members to encourage and supervise the resident in her reignited leisure pursuits, particularly during times when behaviors previously escalated. The patient was discharged from the RT caseload with notes to re-evaluate as needed. Activities staff became the primary recreation provider for Jill after discharge.

Two weeks after discharge, Jill's symptoms began to increase, according to nursing documentation of worsened mood, disorientation, and isolating behaviors. Although Jill was prescribed new medications for her mood and behaviors during the month prior to RT treatment, the improvements during treatment and subsequent decline post-discharge illuminates a positive relationship between RT treatment and functional outcomes.

Implications for Practice and Research

This facilitation was beneficial in its provision of structured, dependable, and familiar leisure that was personally meaningful for this resident. Although sessions occasionally began with negative moods or repetitive complaints, as soon as Jill propelled her wheelchair into the sunlight and open courtyard, there was a visible improvement in her mood. The garden environment itself appeared to increase the resident's sense of security and familiarity in ways that may have expanded her openness to therapeutic problem solving and honest emotional expression. Nevertheless, future facilitations could benefit from adaptations that increase residents' abilities to complete tasks independently and continue to do so after discharge. While Jill expressed satisfaction during each gardening session, there were multiple occasions in which her participation was limited by her inability to reach ground-level garden beds, impulsivity using tools, and difficulty recalling the location of certain plants. Though the therapist implemented safety awareness procedures and precautions to deter accidents related to reaching, standing, and impulsive use of tools, further adaptation could enhance feelings of autonomy while promoting safety. These adaptations might include using bold colors and labels for garden structures and plants, tools for increased orientation and ability to navigate the garden without assistance (e.g. directional signs, wheelchair/walker accessibility), and providing more accessible options for gardening such as long-handled tools for reaching low-level beds, safety scissors, and pulley systems for hanging pots (Kwack et al., 2004; Schuman, 1998). One element of the garden that was adaptive for this resident, and would likely enhance future gardening interventions, was its circular layout that increased Jill's ability to keep track of which plants had been tended. Jill easily knew which direction to continue working and returned to the initial point of entry as she finished.

To promote the continuance of leisure participation outside of treatment, the therapist incorporated an additional goal to increase activity participation with her peers. Though Jill enjoyed new experiences with peers in sport, group games, and entertainment at the facility, she personally attributed her improved mood and increased motivation to RT sessions in the garden. While this six-week facilitation of therapeutic gardening addressing acclimation and psychosocial symptoms of a LTC resident with dementia succeeded in many ways, it was difficult to provide consistent, individualized, outdoor leisure opportunities for this resident after discharge in this setting. At this facility, it was challenging to provide adequate staff to supervise residents with cognitive impairments during outdoor recreation on a daily basis. Despite Jill's willing participation in new activities and triumph over internal obstacles, she was discharged to face external barriers to the leisure pursuit upon which she came to rely for enjoyment and a sense of purpose. While a follow-up plan aimed to assist the resident in independent participation, the facility and staff were not able to provide the transitional care that was needed, emphasizing a common hindrance to discharging clients in LTC—adequate staffing and prioritization of leisure needs as an integral component of holistic health. Further, a short-staffed RT and Activities Department that generally operates through intensive, short-term treatments and subsequent transitions to activity involvement, cannot provide long-term, 1:1 attention to the extent it is needed with populations with dementia. Increased recreational therapist employment in this setting could be largely impactful as a non-pharmacological approach to prevent falls, decrease dementia-related behaviors, fulfill psychosocial needs, and increase adjustment

to LTC residency. Future research should continue to examine the potential for RT to provide opportunities for mood enhancement, adjustment, and functional health outcomes to LTC residents. As research continues to provide evidence that supports the positive effects of individualized, goal-directed leisure and outdoor recreation for older adults, LTC programming must adjust accordingly and prioritize recreation experiences that residents personally desire.

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