IMCC Evidence Based Approach

Adult Day Health Center
IMCC’s adult day health center provides a safe, engaging, and therapeutic environment for individuals with memory impairment, with distinct programs for those in the middle and late stages. It is the only dementia-specific day center in the DC metro area and still the only adult day health center in Northern Virginia with programs for people in the later stages of an Alzheimer’s illness.

The Day Program provides an environment that focuses on people’s strengths rather than their memory limitations, addressing the needs of the total person: physical, mental, and emotional. Innovative approaches are put into practice, from physical therapy and Tai Chi-inspired exercises to art or music therapy and field trips. Breakfast, lunch and two snacks are served each day. IMCC is the only program in Northern Virginia to offer day services to persons with advanced dementia. For these individuals, staff provides total care, including assistance with mealtime, personal care and mobility. Physical and Recreational therapy are also components of the Day Program’s services. Each participant’s care is guided by an individual Care Plan developed by a professional staff team. Without meaningful activity, individuals with dementia become bored, restless, and often exhibit behavior challenges that lead to impossible caregiving situations. Our adult day health care center allows individuals with memory impairment to remain in the earlier stages of the disease for a longer period of time through mentally stimulating activity, physical exercise, and socialization, while simultaneously offering much-needed respite for family caregivers.

The program operates from 7:30 am to 5:30 pm Monday through Friday, and serves up to 40 participants per day. With twenty-two staff members, the Center provides a 1 – 4 staff to participant ratio, exceeding licensure requirements. Of the 91 participants served in FY14, 52% were female and 48% male. Participant ages ranged from 56 to 101, with approximately 60% living with a spouse, and 40% living with adult children or other family. 100% of families were satisfied with the care and services their loved one received, according to our 2014 annual survey. The program has served over 1,400 participants throughout our 30 year history.

Research
Total Unit Programming, such as an Adult Day Health Center, provides programs that are maintained throughout the day and are based on a stimulus-controlled environment, small group participation, and a variety of meaningful therapeutic activities. These programs are based on several studies to be effective in decreasing disturbing behaviors and increasing engagement. (Carpenter, Van Haitsma, Ruckdeschel, & Lawton, 2000; Day, Carreon, & Stump, 2000; Grant & Potthoff, 1997; Hellen, 1998; Kovak & Magliocco, 1998; Kowach. Weisman, Chaudhury, & Caulkins, 1997; Lawton, et al., 2000; Hegland, 1993; Orsulic-Jeras, Judge & Camp, 2000; Zimmerman, et al., 1997)

- Buettner and Ferrario (1998) study used a structured recreational therapy-nursing intervention program that showed significantly reduced levels of agitation throughout the 30-week study, improvement in cognitive function, depression, ambulation, strength, flexibility and overall functioning. Additionally, participants showed a significant reduction in psychoactive medications and falls.
- Cohen-Mansfield, Liben and Marx (2007) study examined total unit programming that provided individualized interventions based on residents cognitive, physical, and sensory abilities and showed significant results in reduction of overall agitation, and increase in pleasure and interest.
- A community based recreational therapy program that consisted of 4 to 5 hours of physical and cognitive exercise, structured socialization, relaxation and psychosocial groups based on interest, showed after a 2 year study statistically significant improvements in cognition, depression, quality of life and instrumental activities of daily living (Buettner, 2006; Buettner & Fitzsimmons, 2006).
- An Australian study of 587 adults with dementia living in the community compared those attending a day program to those who did not. The day programming provided by specialists focused on individual’s emotional and social needs. Participants in the day program remained in the community significantly longer prior to requiring nursing home care. (Rosewarne et al., 1997)
- Non-Pharmacological Protocols
Responding accurately to a client’s need increases his or her active participation time in a therapeutic activity. (Kovach, & Magliocco, 1998)

91% of all non-pharmacological interventions show a benefit in treating the disturbing behaviors of dementia. (Cohen-Mansfield, 2001)

Recreation Therapy
Recreation Therapy is a treatment service designed to restore, remEDIATE and rehabilitate a person’s level of functioning and independence in life activities, to promote health and wellness as well as reduce or eliminate the activity limitations and restrictions to participation in life situations caused by an illness or disabling condition. Activities are designed to restore motor, social and cognitive functioning, build confidence, develop coping skills, and integrate skills learned in treatment settings into community settings. IMCC provides a wide range of these activities at the Adult Day Health Center.

Activities are described below in four categories: cognitive, physical, psychosocial, and sensorimotor. Many activities provide benefits in multiple, if not all areas.

Cognitive Programs
Cognitive programs that utilize working memory from the past and help maintain skills. Cognitive programs include Brain Fitness which utilizes specific cognitive activities which are designed to stimulate dendrite and neural growth and increase overall brain function. Large groups and small group activities rely on reminiscing, retrieving information from long-term memory. Cognitive programs are weaved into active games which allow all participants to participate and be successful.

Programs include:
- Learning Circles
  Small groups, based on participant’s cognitive level, meet to learn about topics of interest and maintain reading, writing, and discussion skills.
- Brain Fitness Group
  Small groups based on participant’s cognitive level, participate in a variety of exercises designed to stimulated dendrite and neural growth and increase overall brain function.
- Cognitive Programs
  All participants exercise the brain through current events discussions, reminiscence, trivia, word games, puzzles and bingo.
- Brain Fitness System by Dakim
  Dakim BrainFitness is designed to provide a fun and varied brain fitness session, stimulating six essential cognitive domains with activities appropriate for those with mild-to-moderate cognitive impairment.
- Montessori Activities
  These activities make use of the Montessori principles, including guided repetition, task breakdown, and progressing from simple to complex, focusing on what the participant can still do. Activities promote cognitive stimulation and opportunities to successfully and meaningfully interact with their physical and social environments.

Research
- With appropriately planned cognitive stimulation for the individual’s level of impairment, participants with dementia can use and retain cognitive skills. (Buettner 1999)
- Cognitive games, such as bingo, can enhance word finding and recognition. (Sobel, 2001)
- Memory games and group sorting activities were found to have significant effects on engagement, and decrease anger and anxiety in participants. (Orsulic-Jeras, et al., 2000)
A 2013 study showed significant improvements in memory, both immediate and delayed, and language abilities, as users strengthened attention, focus, and concentration by using the Dakim computer system. (Miller et al., 2013)

Physical Programs
Physical programs aim to maintain and improve strength, flexibility, balance, movement and endurance. These programs are designed to maintain or increase function while potentially decreasing depression. Programs such as dancing have been shown to increase socialization as well.

Programs include:

- **Daily Exercise**
  To promote overall physical well-being, exercise is incorporated daily into activities. Weekly programs include Tai Chi and an exercise session led by a physical therapist. Daily exercises include stretching and flexibility activities, strengthening exercises, and a morning march.

- **Dance**
  Dancing is more than just fun – it has social, physical, and cognitive benefits! Led by a ballroom instructor, dance increases self-awareness, encourages social interaction, reduces agitation and anxiety, allows for expression, improves cardio-vascular health, muscle and bone strength, promotes balance and flexibility, and integrates several brain functions at once.

- **Walking club**
  Participants are able to enjoy the physical and social benefits of walking, both inside and outside of the center.

- **Active Games**
  Bowling, golfing, balloon volleyball, and other active games keep participants physically active and socially engaged with others.

- **Physical Therapy**
  Exercises help each participant maintain strength, balance, and coordination. Provided under the direction of a licensed physical therapist, these exercises help participants maintain everyday living skills for as long as possible.

Research

- Physical functioning can be improved in individuals with dementia with recreational therapy interventions designed to meet an individual’s specific needs. (Buettner, et al., 1996; Buettner, et al., 1990; Buettner, 1988)
- Physical functioning is inversely related to agitated behavior (Buettner, et al., 1996).
- A seated-exercise program with range-of-motion and strength training activities met for 1 hour, three times per week resulting in significant improvements in balance, physical performance and cognitive scores. (Baum, Jarjoura, Polen, Faur & Ruetecki, 2003).
- **Walking**
  - Holmberg (1997) used a clinical trial of walking as an intervention for unsafe wandering and to meet needs for physical and social activity. On days the walking group took place there was a 30% reduction in aggressive events.
  - A walking program with increased daylight exposure showed significant reduction in nighttime awakenings, total awake time at night, and depression. (McCurry, Gibbon, Logsdon, Vitiello, & Teri, 2005)
- **Dancing**
  - Dancing can reduce apathy and passivity, and is a good stimulus for social contacts (Palo-Bengtsson, & Ekman, 1997)
  - Social dancing increases positive emotional responses (Palo-Bengtsson & Ekman, 2002)
Social dancing increases positive feelings, communication and behaviors (Palo-Bengtsson, Winblad, & Ekman, 1998)

Psychosocial Programs
Psychosocial programs are designed to increase positive relationships with others, provide opportunities to express emotions, increase decision making motivation and social interactions, and decrease depression. These activities, such as the arts, support groups, discussion groups, field trips, and entertainment help those who are passive become engaged, and provide positive experiences.

Programs include:
• Art Therapy
  While it may look like a typical art session utilizing paints, markers, and clay, art therapy focuses on each participant's inner experience; their feelings, perceptions, and imagination. The session becomes about the process of creating art, as opposed to the aesthetic appeal of the final product created. It is a very beneficial form of expression.
• Creative Arts
  Arts activities provide each participant with an opportunity for creativity, self-expression, and socialization. Programs include the arts, group writing, and drama activities.
• Participant Support Group
  Many participants, especially in the earlier stages, need someone to talk to about the changes they are experiencing, and help with grieving their losses. Meeting in a group with peers gives the participant the opportunity to share feelings and receive encouragement in coping with day-to-day challenges.
• Discussion Groups
  Small and large groups promote reminiscence, encourage expression of thoughts, and are based on participant's interest.
• Entertainers
  Musical groups and entertainers provide enriching live entertainment to the daily programming.
• Field Trips
  Participants enjoy many off-site excursions to area museums, parks, and restaurants. These field trips help promote a sense of normalcy for participants, and provide opportunities for fun and socialization!

Research
• Cohen-Mansfield and Werner (1997) found that social interaction reduced verbally disruptive behaviors by 56%.
• Individualized psychosocial programs were provided to participants who had failed to respond to pharmacological therapy, and results found a significant reduction in the severity of aggressive and verbal agitation. (Davison, Hudgson, McCabe, George, & Buchanan, 2007)
• Art Therapy
  • Rentz (2002) demonstrated that participation in weekly art sessions enhanced a sense of well-being.
  • Holt (2001) found art therapy to increase socialization and connectedness between group members.
  • Art Therapy was found to significantly improve depression and provide opportunity for expression within a small group. (Rusted, Sheppard, & Walker, 1999)

Sensorimotor Programs
Sensorimotor programs aim to evoke an active response from participants, such as engaging passive or apathetic individuals or calming those who are agitated. Sensory cues are offered for those with limited cognitive or verbal abilities.
Programs include:

- **Music Programs**
  Music is incorporated in daily programs, including cognitive programs, music appreciation, musical trivia, sing-alongs, and programs that utilize participant’s musical preferences.

- **Music Therapy**
  Our music therapist visits weekly to lead the group in a formal exercise routine while singing familiar tunes. Music often serves to calm those who are agitated, and brings friends together as they remember old songs from happy times. This program gets everyone up and moving to the music. It is a fun time that leaves everyone feeling up-beat and happy.

- **Music & Memory**
  The Music & Memory program is a personalized music system that provides therapeutic benefits to participants by providing an individualized playlist. Musical memory is profoundly linked to emotions, and these memories are stored deep in the brain. When individuals suffering from dementia hear a melody connected with a meaningful memory, they can reawaken through the use of their personalized playlist.

- **Multi-Sensory Environment**
  A multi-sensory environment is a safe, non-threatening space to promote intellectual activity, heighten awareness and brain arousal, and encourage relaxation. The room is designed to stimulate the sensory pathways of touch, taste, sight, sound, smell, and movement. The space either produces a calming effect on individuals prone to agitation or frustration, or stimulates passive individuals who appear withdrawn.

- **Massage and Touch Therapy**
  Weekly spa programming is provided for participants in the later stages, including massages, manicures, and other relaxation.

- **Life Skills Programming**
  Participants in the later stages engage daily in individualized life skills programming, such as doll therapy, to maintain remaining skills and help connect to the world around them.

Research

- Sensory stimulation programs decrease apathy and increase interest in group activities, (Paire & Karney, 1984), provide constructive engagement and pleasure (Baker, et al. 2001), and improve behaviors (Armstrong, 2001).
- A meta-analysis of reminiscence therapy, including 5 trials with 144 participants, showed statistically significant results for increased cognition, mood and behavior, and caregivers showed significant decreases in stress (Woods, Spector, Jones, Orrell & Davis, 2005).
- Massage and touch related relaxation therapy has proven benefits on behaviors (Lantz, Buchalter, & McBee, 1997; Malaquin-Paven, 1997).
- Music Therapy
  - A meta-analysis of 8 studies of the use of preferred music on agitated behaviors demonstrated positive results (Sung & Chang, 2005).
  - A meta-analysis, 21 studies with 336 participants, found the overall effect of music to be highly significant for maintaining and improving active involvement, social, emotional and cognitive skills and for decreasing behaviors (Koger, Chapin, & Brotons, 1999).
- Storytelling has a significant decrease in apathy, social isolation, and pain (Ronnberg, 1998).
- The use of singing and exercise combined has greater active exercise engagement (Groene, 1999).
- Pet Therapy
  - Pet therapy can provide significant reduction in agitation and increase socialization (Richeson, 2003)
  - Animals increase sensory stimulation, provide emotional support, and facilitate behavior changes. (Wilson & Netting, 1983; Brickel, 1980; Ryder, 1985)
- Horticulture therapy can stimulate the fascination and hold attention (Kaplan & Kaplan, 1989) and reduce stress levels and decrease agitation (Ulrich, 1999).
• Snoezel care has a significant effect on apathetic behavior, loss of decorum, rebellious behavior, aggressive behavior, and depression, as well as positive well-being and adaptive behavior. (van Weert et al., 2005)
• Research on doll therapy has found dolls to be useful in reducing anxiety, withdrawal behaviors and depression. (Bailey, Gilbert, & Herweyer, 1992; Lloyd, McKenzie, Searle, & James, 2000; Ehrenfeld & Bergman, 1995)

References


