Non-pharmacological Approach to the Alzheimer’s Disease Patient

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Objectives

- Identify pitfalls of many pharmacological therapies
- Understand the goal of non-pharmacological therapies
- Understand the various types of NP therapy
- Assess those patients who may benefit from NP therapy
Pharmacological Therapy

**PROS**
- Proven in clinical trials
- Target the neurological chemicals that are deficient in AD
- Easy therapy
  - Once to twice daily
- Readily available at pharmacies

**CONS**
- Cost
- Effect may wear off
- Medication may not work in all patients
- Side effects
- May exacerbate other diseases
Non-pharmacological Therapy

- Interventions that include an activity, environmental design, attitude, or communication directed at the Alzheimer’s Disease (AD) patient
  - Non-Pharmacological Interventions (NPI)
- Therapy can aid in both behavioral symptoms and memory problems
- Work together with pharmacological therapy to enhance the quality of life in AD patients
Treatment of the Alzheimer’s Disease Patient

- Behavioral Symptoms
  - Pharmacological management
  - Non Pharmacological management

- Cognitive/ memory loss
  - Pharmacological management
  - Non Pharmacological management
Behavioral Symptoms
Behavioral Symptoms

Often referred to as neuropsychiatric symptoms (NPS)
- More than half of patients have behavioral symptoms

Causes
- The damage in the brain from AD may also cause the changes in behavior
- The AD patient is trying to make sense of the world around them, but is reacting in a disorganized way.

Negative outcomes of NPS
- Increased caregiver burnout
- Increased caregiver turnover
- Increased morbidity
- Increased health care costs
- Increased hospitalizations

Behavioral Symptoms

- Symptoms
  - Restlessness or over-activity
  - Depression
  - Irritability, anxiety, or suspicion
  - Aggression (verbal or physical)
  - Hallucinations (seeing or hearing things that aren’t there)
  - Delusions (being disturbed by thoughts, and believing things that aren’t true)
  - Tendency to shout repeatedly or become noisy
  - Loss of normal inhibitions – (e.g. touching their private parts)
  - Wandering

Pharmacological management

Pharmacological Agents

- Atypical Antipsychotics
  - Haloperidol (Haldol ®)
  - Risperidone (Risperdal ®)
  - Olanzapine (Zyprexa ®)
  - Ziprasidone (Geodon ®)
  - Aripiprazole (Abilify ®)

Current evidence is not clear to the benefit of these agents in the AD patient

- Recent evidence has shown an increased risk of death associated with the use of atypical antipsychotics in the dementia patient

Therapeutic outcomes of these agents may wear off over time

- These agents are associated with many potential side effects


Nonpharmacological management

- Communication methods
- Therapeutic activities
- Environmental modification
- Maintaining overall health
Communication Methods

“Communicate within the affected person’s frame of reference.”
- Base communication and interaction on what the patient assumes to be “reality.”

Decreases the stress associated with interactions

Communication techniques
- Reality therapy
- Validation therapy
- Redirection
- Memory cueing

http://www.alzinfo.org/alzheimers-treatment-communicating.asp
Communication methods

- **Reality therapy:** interact with the affected patient within the realms of their perceived world – even if it strays from your reality.

- **Validation therapy:** Do not correct or contradict the patient’s view on reality; instead, encourage it and validate it.

- **Redirection:** Be sensitive when attempting to redirect the conversation in order to not contradict or deny the patient’s sense of reality.

- **Memory cueing:** Use words and visuals to cue old or recent memories.

Therapeutic activities

Planning structured, individualized activities centered around the patient’s interests reduces the behavioral symptoms.

Goals
- Focus on patient’s previous interests
- Cue the patient to old or recent memories
- Take advantage of the patient’s remaining skills
- Reduce focus on any diminished skills the patient may have

Group activities
- Create friendships
- Mutual support
- Spiritual connections

Examples of activities
- Music therapy
- Gardening
- Cooking
- Painting and drawing
- Singing
- Pet therapy
- Walking and light exercise
- Videotapes of loved ones

http://www.alzinfo.org/alzheimers-treatment-therapeutic.asp
Environmental modification

Include modifications of
- Lighting
- Color
- Noise
- Furniture placement

Goal
- Help AD patients overcome the loss of their internal mapping abilities
  - Internal mapping abilities help orient people to time and space
- Create an environment that is specifically designed to support the AD patient’s abilities
  - Increased independence
  - More social engagement
  - Increased safety
  - Decreased behavioral symptomd

http://www.alzinfo.org/alzheimers-treatment-modifying.asp
Environmental modifications

Example modifications:

- Low levels of lighting during meals (improves eating habits)
- Simply furnished spaces with minimal distractions
- Consistent background noise (musical or nature sounds)
- Placing objects that cue memories in clear view (photographs, mementoes)
- Ensuring privacy and personalized space

http://www.alzinfo.org/alzheimers-treatment-modifying.asp
Maintaining Overall health

- Successfully manage all other diseases states
  - Heart disease
  - Arthritis
  - Diabetes

- Diet
  - Well balanced, nutrient rich
  - May require supplements in later stages of AD

- Exercise
  - Increases mobility
    - Maintains independence
  - Improves other disease states
  - Light exercise and walking has been shown to decrease wandering
  - Incorporate into daily routines and scheduled activities

Cognitive/memory loss
Cognitive/memory loss

Characteristics
- Memory loss -- difficulty remembering recent facts and the inability to acquire new information

Causes
- Alzheimer’s Disease (AD) is characterized by a loss of neurons and synapses in various parts of the brain
- Plaque formation and neurofibrillary tangles
  - Neurological and psychological changes

Negative outcomes
- Increased caregiver burnout
- Increased caregiver turnover
- Increased morbidity
- Increased health care costs
- Increased hospitalizations
Pharmacological Management

Pharmacological agents
- Razadyne® (galantamine, Reminyl®)
- Exelon® (rivastigmine)
- Aricept® (donepezil)
- Cognex® (tacrine)
- Namenda® (memantine)

Agents do not cure Alzheimer’s Disease, rather they treat the symptoms.
The effect may wear off over time.
These agents interact with many other medications.
These agents are associated with many side effects.
Nonpharmacological management

Cognitive training
- Shown to boost daily function in healthy adults
- Research directed at AD patients is needed

Types
- Memory
- Reasoning skills
- Speed of processing

Examples
- Crossword puzzles
- Computer exercises
- Reading
- Word games
