Session: R18

Mild Cognitive Impairment: More Than Misplacing Your Keys

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Objectives:

- Attendees will be able to identify the differences between normal aging, dementia and MCI in order to create a foundation of understanding.
- Attendees will explain how identification of Mild Cognitive Impairment through a comprehensive interdisciplinary approach is essential.
- Attendees will be able to evaluate the need for a comprehensive Mild Cognitive Impairment program in their own center/setting.
- Attendees will be able to list the initial steps of a roll out of a comprehensive Mild Cognitive Impairment program in their own center/setting.
- Attendees will be able to design client and family education materials for their center/setting.
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Is This Normal Aging?
• Occasional word finding difficulty
• Client is more concerned with forgetfulness than family
• Recent memory for important events is lacking on occasion
• Misplaces objects but is able to retrace steps and locate them
• Loves to reminisce about one particular time of life

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Is This Mild Cognitive Impairment?
• Frequent word finding problems
• Family members are more concerned about forgetfulness than the client
• Social isolation
• Misplaces and cannot locate objects within home/familiar environment
• Cannot remember if meds were taken or what was consumed for lunch

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Trends
• There is a growing concern about the rise of the diagnosis of Alzheimer’s Disease (AD) in the elderly
• AD is the 6th leading cause of all deaths in the U.S.
• An estimated 5.4 million Americans currently have AD
• Expected total payment in 2015 for health care, long term care, and hospice services for those with AD is expected to be $226 billion; this does not include contribution of unpaid caregivers which is estimated at $217.7 billion

Alz.org (2015)
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Trends

• The most common symptom pattern begins with gradually worsening difficulty in remembering new information
• Greatest risk factor for developing AD is advancing age
• It is important to remember that developing AD is not a normal part of aging
• Other prominent risk factors for developing AD are family history, presence of MCI, type II diabetes and cardiovascular disease
• Progressing from Mild Cognitive Impairment (MCI) to AD may occur at different rates or not occur at all

What is Cognition?

• Cognition is a highly complex process that includes the following domains or areas:
  • Language
  • Memory
  • Attention
  • Executive Function
  • Complex Processing
  • Visual Spatial Function
• Because all brains develop differently, the nature of the cognitive decline will be individualized.

What is Normal?

• The brain has the same number of neurons at age 75 as it does at age 25.
• The brain’s ability to learn and adapt, called neuroplasticity, is intact during aging.
• To complete tasks, the aging brain needs more time to process the information and recruit more areas to be successful.
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Cognitive Changes in Normal Aging
• Occasional word-finding difficulty, but able to recall the word given time.
• May misplace an item, but has ability to problem-solve possible locations of item.
• Occasional memory issues, but not significant enough to affect daily living. For example, may forget the name of a person that is seen occasionally.

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Is This Normal Aging?
• Occasional word-finding difficulty - yes
• Client is more concerned with forgetfulness than family - yes
• Recent memory for important events is lacking on occasion - yes
• Misplaces objects but is able to retrace steps and locate them - yes
• Loves to reminisce about one particular time of life - yes

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What is MCI?
• A syndrome with defined clinical, cognitive, and functional criteria
• The symptomatic pre-dementia phase of AD
• A degree of cognitive impairment that is not normal for the individual’s age or educational level
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- Difficulty completing familiar tasks at home, at work, or at leisure
- Challenges in planning or solving problems
- Misplacing things and losing the ability to retrace steps
- Decreased or poor judgment
- Withdrawal from work or social activities
- Changes in mood and personality
- New problems finding words when speaking or writing
- Memory loss that disrupts daily life

Warning Signs

Is This Mild Cognitive Impairment?

- Frequent word finding problems
- Family members are more concerned about forgetfulness than the client
- Social isolation
- Misplaces and cannot locate objects within home/familiar environment
- Cannot remember if meds were taken or what was consumed for lunch

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- Certain types of MCI change to a status of “dementia of the Alzheimer’s type” after just a few years.
- Other types of MCI go onto develop other forms of dementia.
- Some clients with one type of MCI remain at the same level of impairment or may improve with therapy.
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### Mild Cognitive Impairment

<table>
<thead>
<tr>
<th>Mild Cognitive Impairment</th>
<th>Alzheimer’s Dementia</th>
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</thead>
<tbody>
<tr>
<td>Exhibit near normal cognitive function (thinking, understanding, decision making)</td>
<td>Generalized cognitive impairment typically affecting multiple areas (learning, reasoning, decision making, language, attention, memory)</td>
</tr>
<tr>
<td>Typically, short term memory is sole cognitive deficit; however, minor changes may be noted in other areas</td>
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</tr>
<tr>
<td>Able to complete ADL’s</td>
<td>Significant impairment in ADL completion</td>
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</tbody>
</table>

### Mild Cognitive Impairment: More Than Misplacing Your Keys

#### Diagnosing MCI

**Step 1:**
- Exclude other possible conditions that may be causing the noted signs and symptoms.
  - Interview
  - Cognitive Battery
  - Neurologist
  - MRI, PET scan
- It is imperative to have a medical director and IDT that is supportive of this identification process

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4/6/2015
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MCI Core Clinical Diagnosis Criteria

• Evidence of concern about a change in cognition in comparison to the person’s previous level
• Evidence of lower performance in one or more cognitive domains that is greater than would be expected for the client’s age and educational background
• Baseline cognitive testing is optimal

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• Impairment in episodic memory (ability to learn and retain new info) over time, this is seen most commonly in MCI clients who subsequently progress to AD
• Difficulty performing complex functional tasks such as paying bills, preparing a meal, or shopping; difficulty may surface as need for more time, less efficient at task, or makes more errors
• Generally maintains independence of function in daily life, with minimal aids or assistance
• No evidence of significant impairment in social or occupational functioning

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Important Additional Core Criteria

• Upon assessment there is no evidence of depression, vascular, traumatic and/or other medical causes that can account for the reported cognitive decline
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Diagnosing MCI

• Step 2: Determine which type of MCI the client is exhibiting
  • Leave a little room for adjustment. Symptoms may come to the surface that weren’t apparent initially

Types of MCI

• How the impairments differ between one individual to another helps the clinical staff distinguish the different dimensions of MCI in their client population.
• Through a greater understanding of the dimension of MCI, a more comprehensive medical plan can be created to give this group the greatest chance for improvement.

There are three dimensions (also called sub-types) of MCI:

• Amnesic
  • Single – Memory only affected
  • Multiple – Memory plus one other area affected

• Non-Amnesic
  • Single – One non-memory area affected
  • Multiple – Two or more non-memory area affected

• Worried Well
  • Performs at normal or near normal on testing
  • Client or family concerned about cognitive changes
  • Many remain in this dimension indefinitely
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MCI Conversion to AD
- Approximately 80% of people with Amnesic MCI develop AD within 6 years.
- According to the Mayo Clinic, 15-20% of clients with MCI convert to AD each year, compared with 1-2% of the general adult population.
- Those with multiple cognitive areas affected by MCI are at the highest risk for developing AD.

Importance of Cognitive Treatment
- MCI is often the symptomatic pre-dementia phase of Alzheimer’s disease
- Although no one standardized treatment for MCI exists, early detection has important implications:
  - It allows for the identification and treatment of reversible etiologies, such as depression or drug side effects
  - Counseling and recommended support services can be offered to the individual and their family
  - Skilled therapy can assist in implementing strategies for cognitive deficits and may delay the progression of MCI

Client Identification
- Prior to roll-out of the MCI program, the center should have a dynamic general client advocacy program in place.
- A consistent procedure should be in place to educate all new community staff on the advocacy philosophy and program.
- The rehab team should follow up with each referral source after screen is completed.
- Nursing and/or Social Services should educate all new admissions on potential need for rehab services.
- Medical Director should play an active part in the program.
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Resource:
See a Change ... Tell Someone

• An educational resource along with a referral card aimed at increasing communication of changes noted within the center or community allowing for a quicker intervention
• Goal is aging in place and maintaining the highest functional level within the environment for the longest period possible
• Staff within the community are the most valuable referral resource
• Any staff, client, or family member may make a referral
• The advocacy philosophy needs to be fostered within the entire community

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• Importance of a multi-disciplinary approach:
  • Impaired cognition impacts all aspects of daily living. Changes may be identified by staff in their living environment or during center/community activities.
  • The initial referral to PT may be for a fall. PT should engage the assistance of ST or OT to assess the individual’s cognitive abilities.
  • PT and OT must be aware of the impact impaired cognition has on function and refer to other disciplines as necessary.
  • Center administration, nursing and social services should understand that need for the therapy is not uncommon in their center or community.
  • Admissions coordinator should talk with clients and families about the need for rehab services throughout their time in the center.
  • Comprehensive documentation supporting the need for cognitive intervention is key, as well as ongoing documentation to demonstrate the positive impact the intervention has.

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• PT referral required when individual experiences:
  • Episodes of falling or loss of balance
  • Withdrawal from physical activity with associated decrease in endurance, especially distance ambulated or ability/safety on stairs
  • Increased forgetfulness with proper use of assistive device
  • Difficulty negotiating hazards/obstacles in mobility path
  • Increased forgetfulness with proper use of prosthetic/orthotic device
  • Increased difficulty following precautions
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OT referral required when individual exhibits:
- Difficulty managing finances, mail and medications
- Decreased safety awareness for household situations, illness and emergency
- Forgetting or misplacing supportive devices such as dentures, eye glasses and hearing aids.
- Improper care and maintenance of supportive devices.
- Difficulty with meal preparation
- Difficulty using and/or unsafe use of appliances
- Increased difficulty with community mobility, such as following a bus schedule or recalling pick-up/drop-off locations.
- Difficulty caring for spouse, other family member or pets

ST referral required when individual is:
- Asking the same question(s) repeatedly
- Taking a longer time to recall words
- Unable to follow the flow of a conversation
- Having difficulty completing tasks with more than 1-2 steps
- Having difficulty following a daily schedule
- Declining in activity participation
- Change in mealtime habits
- Change in social habits
- Inability to identify medications and why they are being taken

Taking the first step

Resource: MCI Clinical Program Assessment
- A program assessment to determine the presence and strength of cognitive programming within a community
- A collaborative process – IDT approach is best
- An intentional process with follow up action items
- Should not be used punitively – be objective
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Program Development Plan
- Consider the client base in your community
- Complete the MCI Clinical Program Assessment
- Meet to discuss results and decide on action items
- Discuss and plan education needs with your rehab team
- Discuss and plan education with community wide staff to introduce MCI program and advocacy focus
- Discuss and plan education with clients and families – Staying in Step; Keeping Brains Fit – Aimed at wellness and aging in place
- Schedule and hold follow up meetings for action items

Client and Family Education Materials
- Aimed at fostering a partnership with aging in place – in a safe and functional way
- Educational as well as provide tips to manage
- Include who to contact to obtain more detailed information
- Suggested topics

- Medication Management
- Memory Aids
- Home Safety Room by Room
- Finances
- Driving
- Consider monthly or quarterly wellness series – invite clients, families, community where occasionally topics can focus on cognitive health and how to access resources
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Summary
• There are clear cut differences in the cognitive processes of normal aging versus MCI versus dementia – knowing these allows for programming aimed at increased successful aging in place.
• A strong advocacy philosophy throughout the community with timely intervention from rehab can be the difference needed for a successful program.
• It is imperative to assess the coordinated and comprehensive approach present in any community in order to effectively plan initial steps to implement a program.
• Education and partnership with our clients and their families can ensure our efforts are consistent and provide an approach of positive cognitive health.

Resources:
• Internet Resources: 
  - www.ncbi.nlm.nih.gov/pubmed
  - www.nia.nih.gov
  - www.alz.org

• Bibliography: 
  - See handouts.
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Thank You for your attention!

Please feel free to contact me for further information for questions.

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See a Change...Tell Someone...

The following are some of the changes in a client’s personality, behavior, participation in activities, upkeep of their room/apartment or personal appearance that could be a sign that they are undergoing physical or memory changes. They may need therapy or other services...Please tell someone.

Changes in activity participation:

- Late when they were always on time
- Not interacting with the same people
- Not attending the same activities

Changes in personality

- Asks you the same question(s) every day or all day long
- Frequently asks what time it is
- Difficulty following a conversation or interacting with staff
- Appears anxious/frustrated or expresses anxiety/frustration with everyday situations
- Increase reporting of lost items within room/apartment/community
- Appears to be angry with staff or others more easily and frequently
- Appears to be distracted and unable to focus
- Expresses feelings of being overwhelmed

Changes in personal appearance

- Clothes are wrinkled, stained, ripped, or dirty
- Wearing the same clothes for days at a time
- A body, hair, or breath odor is noticed
- No longer wear glasses or hearing aid

Changes noted in client’s room/apartment

- Increased clutter
- Spoiled food in refrigerator, counters or in the space
- Trash not being emptied
- Unopened mail piling up
- Groceries not put away
- An odor is noticed
- Multiples of the same item

Changes noted in the dining room

- Not using the printed menu to order
- Same menu items ordered for each meal or each day
- Eating less each meal
- Spilling soup, drink, or food onto tabletop, clothing or the floor
- Spends less time in the dining room for each meal
- Other clients notice and are heard discussing the changes
- Requests more meals to be delivered to their room/apartment
Mild Cognitive Impairment
Clinical Program Assessment

<table>
<thead>
<tr>
<th>FACILITY GRADE</th>
<th>MCI PROGRAM EXPECTATION</th>
<th>COMMENTS/ACTION PLAN</th>
<th>RESPONSIBLE PARTY</th>
<th>DATE COMPLETE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MCI services are provided in a coordinated and comprehensive manner. (To meet this expectation, cognitive services must already be provided, a referral process must be in place, and ongoing communication between the rehab team and IDT must occur).</td>
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<tr>
<td>2.</td>
<td>There is an established and functional system utilized to identify and refer residents with declines. (To meet this expectation, a referral and screening system must be in place to communicate declines from caregivers to the rehab team.)</td>
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<td>3.</td>
<td>If available, reports in the center, such as a 24-hour report are utilized to identify needs for cognitive intervention. Referrals for cognitive services are present from IDT – nursing/personal care attendants, dining services, health/wellness coordinator, activities. (To meet this expectation, there needs to be evidence of screens on the screening log)</td>
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<tr>
<td>4.</td>
<td>The MCI program is known and identifiable to the facility staff (nursing/personal care, dining services, health/wellness and activity departments) and administration. (To meet this expectation, facility in-servicing needs to be completed, rehab staff inservicing completed, job aids present).</td>
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<td>5.</td>
<td>The rehab staffing pattern allows for skilled treatment intervention (i.e. 5x/week treatment is available as needed)</td>
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<td>6.</td>
<td>Standardized assessments and functional treatments are utilized. Staff members possess knowledge of cognitive processes and how to evaluate and to develop treatment plans for this client population. (To meet this expectation, there will be evidence of standardized assessment on the treatment plan and functional interventions within the documentation)</td>
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<td>7.</td>
<td>There is on-going rehab, nursing and IDT documentation of the justification for skilled intervention to address cognitive needs and ongoing impact. (Review of medical record and rehab documentation)</td>
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<td>8.</td>
<td>There is documentation of client, caregiver and staff education in cognitive management prior to discontinuation of therapy services. (To meet this expectation, there must be evidence of discharge recommendations and education to appropriate level of wellness and/or activity programming within the center)</td>
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<td>9.</td>
<td>There is evidence of accurate and appropriate entries in the billing record. (Review therapy billing record and center billing record for matching diagnosis/treatment codes, billing dates, and billing amounts)</td>
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<tr>
<td>10.</td>
<td>Outcomes are entered for all clients and analyzed. (To meet expectation, there must be evidence that outcomes are entered within the therapy documentation system, analyzed for effectiveness of programs, and results shared with Executive/Leadership Team of the center)</td>
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40-50 points – A well-defined MCI Program exists  
30-39 points – Cognitive needs are being met, but may not be comprehensive or coordinated  
Under 30 points – Cognitive needs are not coordinated or comprehensive. Action plan required.

Total Points:

Signatures:
ED/Administrator:_______________________________________________________________
Resident Care Coordinator/DON:_________________________________________________________
Director of Rehabilitation:_________________________________________________________

Comments:
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**Bibliography:**


Internet Resources:

[www.nia.nih.gov](http://www.nia.nih.gov)
[www.alz.org](http://www.alz.org)