Understanding Dementia

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Workshop I
Common Mental Health Concerns In Older Adults
A Series of Four Workshops

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Overview:
- Cognitive functioning (“normal aging” vs. dementia)
- Various types of dementia
- Screening for/assessment of dementia
- Helpful interventions when interacting with individuals who have dementia

Dementia Diagnostic Criteria*

- Weakening of the Memory
- Deficit in at least one: Aphasia, Apraxia, Agnosia, Executive Functioning
- Impairment in social or occupational functioning
- Gradual onset and continuing decline

* DSM-IV-TR (Statistical Manual of Mental Disorders)
Dementia

- Most cases of dementia in older adults are Alzheimer's Disease (approx. 60% to 80%)
- Next most common type is Vascular Dementia (10% to 20%)
- The rest form a long list, including (not limited to): AIDS (HIV Infection), Lewey Bodies, Parkinson's Disease with dementia, Frontotemporal Dementia (Pick's Disease), etc.

Dementia

- 3.4 million Americans have dementia
  - 2.9 million have Alzheimer’s Disease
  - 5% of people 71-79 y.o. have dementia
  - 37.4% of people 90 y.o. have dementia
  - 1 in 7 of 71 y.o. and older have dementia

Diagnosis of AD

- Clinical
- Criteria:
  1. Gradual & progressive decline cognitive function
  2. Recent memory impairment with either
     - Language disturbance
     - Skilled motor function decline (without weakness)
     - Visual processing
     - Executive function decline
  3. Not due to psychiatric, neurological, systemic disease
  4. Not delirium

Early Diagnosis

- Only 3% are diagnosed in the early stage
- 25% are diagnosed in moderate stage
- Many are under diagnosed; even more under treated
Normal Aging –vs- Disease

Early Dementia
- Memory & concentration
- Mood & Behavior

Late Dementia
- Language and speech
- Movement and coordination
- Other symptoms

Typical Aging

- Executive Functioning
- Short-term memory
- Confrontation Naming

Alzheimer’s Disease | Normal Aging
---|---
Forgets entire experience | Forgets part of an experience
Rarely remembers later | Often remembers later
Gradually unable to follow written/verbal directions | Usually able to follow written/verbal directions
Gradually unable to use notes as a reminder | Is usually able to use notes as reminders
Gradually unable to care for self | Is able to care for self

Hey...
Don’t blame it all on aging or dementia!
- Some behaviors are lifelong
- May be exaggerated due to stress, depression, etc.
- Ability to cope and flexibility is characteristic of person, not aging
- Personality does not change with age unless modified by disease
Mild Cognitive Impairment (MCI)

Memory problems and mild impairments, but able to function quite well in daily life.

Different types of MCI
- Amnestic MCI
- Multiple domain MCI
- Single non-memory domain MCI

MCI – Mild Cognitive Impairment
- Useful in identifying persons high risk for AD
- Symptoms may include:
  - Memory impairment & one of following:
    - disorientation & impaired judgment
    - changes in mood
    - speech disturbance
    - difficulty with task completion

Risk factors for MCI
- High Blood Pressure
- High Cholesterol
- Diabetes
- Osteoporosis
- Obesity
- COPD
- Smoking
- Head Injury
MCI Screening:

- Neuropsychological testing
- Clinical judgment
- Screening tools such as MMSE, Mini Cog

Vascular Dementia

- Increased risk associated with stroke

Vascular Dementia (VaD)

- Also known as
  - Multi-infarct Dementia (MID),
  - Vascular Cognitive Impairment (VCI), &
  - Cognitive Impairment-No Dementia (CIND)

- 10%-20% of all dementias
- Commonly thought of as the 2nd most common dementia

Differences in presentation: VAD and AD

- Executive dysfunction more impaired
  (abilities include cognitive flexibility, concept formation and self monitoring)

- Memory is less impaired (or not impaired)
Treatment for VaD:

- Minimize risk factors (What is good for the heart)
- Lower BP
- Low blood sugars
- Aspirin
- Possibly use medications (donepezil, galantamine, rivastigmine, memantine) as AD – similar benefits. Need to weigh against cost/side effects.

Other Dementias...

- **Frontotemporal Dementia** (focal atrophy of frontal and temporal region of brain)
  - Gradual progressive behavior/language change (highly inappropriate social interactions)
  - Occurs between 35 – 75 yr olds
- Dementia with **Parkinsonism** & Dementia with **Lewey Bodies**:
  - Gradual progressive dementia
  - Fluctuations in cognitive function
  - Persistent visual hallucinations
  - Spontaneous motor features

Clinical Features of Lewey Bodies

- Dementia is essential to diagnosis
- Plus 2 of the following:
  - Cognitive Fluctuations
  - Visual Hallucinations
  - Parkinsonism
Reversible Dementia ("pseudo dementia")

- Medication Induced
- Alcohol related
- Metabolic disorders
- Depression

Case: "Marion"

- 81 year-old, widowed 15 years ago; lives alone in same home for past 40 years.
- Diabetes, hypertension, arthritis, high cholesterol, macular degeneration.
- History of depression following her retirement and husband’s death.
- Discontinued alcohol use in recent years. Denies current use.
- Has involved family living close by.
- Family concerned about recent incidences and question recurrence of depression.

Screening for Dementia:

- Mini Mental State Exam (MMSE)
- Mini-Cog

Why use the MMSE?

- Tests 5 areas of Cognitive Function:
  - Orientation
  - Registration
  - Attention & Calculation
  - Recall
  - Language
- 5-10 min. to administer

Source: Folstein, 1975
MMSE Limitations:

- Cannot diagnose case for change
- Relies on verbal response, reading and writing

Source: Folstein, 1975

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MMSE – 5 Areas:

- Orientation
- Registration
- Attention & Calculation
- Recall
- Language

Source: Folstein, 1975

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The Mini-Mental State Exam

<table>
<thead>
<tr>
<th>Patient</th>
<th>Examiner</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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Maximum Score

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Registration</th>
<th>Attention and Calculation</th>
<th>Recall</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ( ) What is the (year) (season) (date) (day) (month)?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 ( ) Where are we (state) (country) (town) (hospital) (floor)?</td>
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<td></td>
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</tr>
<tr>
<td>3 ( ) Name 3 objects: 1 second to say each. Then ask patient all 3 after you have said them. Give 1 point for each correct answer. Then repeat them until he/she learns all 3. Count trials and record # trials: ___________</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 ( ) Serial 7s. 1 point for each correct answer. Stop after 5 answers. Alternatively spell “world” backward.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 ( ) Ask for the 3 objects repeated above. Give 1 point for each correct answer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 ( ) Name a pencil and watch.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ( ) Repeat the following “No ifs, ands, or buts”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 ( ) Follow a 3-stage command. “Take a paper in your hand, fold it in half, and put it on the floor.”</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 ( ) Read and obey the following: CLOSE YOUR EYES</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1 ( ) Write a sentence.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1 ( ) Copy the design shown.</td>
<td></td>
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Scoring for the MMSE

- 24 - 30 → “normal” range
- 20 - 23 → mild cognitive impairment
- 10 - 19 → middle stage impairment (moderate)
- 0 - 9 → late stage impairment (severe)

Source: Folstein, 1975

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Mini-Cog – 3 steps:

1. 3-item - repeat
2. Clock-drawing Test (CDT)
3. Recall of 3 items


Why use the Mini-Cog:

- Simple, effective and easily administered
- Relatively uninfluenced by education level
- Detects cognitive impairment in earliest stages


MINI COG – CDT

1) Inside the circle, please draw the hours of a clock as they normally appear
2) Place the hands of the clock to represent the time: “ten minutes after eleven o’clock”

Scoring Mini-Cog

Recall = 0 (+ Dementia)
Recall = 1-2
Recall = 3 (- Dementia)

Clock Abnormal (+ Dementia)
Clock Normal (- Dementia)

Limitations to Mini-Cog:

- Visual impairment
- Difficulty holding writing implement
- Tests only executive functioning


Depression or Dementia?

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<tr>
<th>Feature</th>
<th>Depression</th>
<th>Dementia</th>
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<tr>
<td>Onset</td>
<td>Can be acute or chronic; may coincide with life changes</td>
<td>Chronic, insidious and gradual</td>
</tr>
<tr>
<td>Course</td>
<td>May have diurnal effects, (worsen in AM) situational fluctuations but less than acute confusion</td>
<td>Long, no diurnal effects, symptoms progressive; relatively stable over time</td>
</tr>
<tr>
<td>Duration</td>
<td>At least 2 weeks</td>
<td>Slow and continues</td>
</tr>
<tr>
<td>Mood/Effect</td>
<td>Extreme sadness, may have anxiety / irritability</td>
<td>Depressed or disinterested, easily distracted, inappropriately anxious, labile to apathy</td>
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<td>Attention</td>
<td>Minimal impairment but poorly motivated</td>
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<td>Orientation</td>
<td>Selective disorientation</td>
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<td>Memory</td>
<td>Selective or purely impairment – may complain about impairment</td>
<td>Recent &amp; remote impaired, may confabulate to cover-up deficits</td>
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<td>Thinking</td>
<td>Intact but with themes of hopelessness, helplessness, or self-deprecation. May have difficulty concentrating and be slow to speak</td>
<td>Difficulty with abstraction, thoughts impoverished, judgment impaired, words difficult to find</td>
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<td>Hallucinations / Delusions</td>
<td>May have delusions (often paranoid)</td>
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Marion’s Screening Results:

- Mini-Cog
- MMSE

Depression or Dementia? (cont’d)

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<td>Activity</td>
<td>Variable, lethargic or agitation</td>
<td>Normal, may be decreased in later stages</td>
</tr>
<tr>
<td>Sleep Wake Cycle</td>
<td>Disturbed, often early AM awakening</td>
<td>Fragmented</td>
</tr>
<tr>
<td>Trigger / Etiology</td>
<td>Loss, genetic/familial</td>
<td>Alzheimer’s, Multi-infarct, Alcoholism, Vitamin deficiencies, CVA, AIDS, etc.</td>
</tr>
<tr>
<td>Mental Status / Testing</td>
<td>Failings highlighted by the patient, frequent “don’t know” answers, little effort, frequently gives up, indifferent, does not care or attempt to find answer</td>
<td>Failings highlighted by family, frequent “near miss” answers, struggles with test, great effort to find an appropriate reply</td>
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<tr>
<td>Reversibility</td>
<td>Potential</td>
<td>Irreversible, often progressive</td>
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Behavioral symptoms associated with Dementia:
- One will occur in more than 50% of those with any dementia:
  - Agitation
  - Aggression
  - Verbal or physical sexual aggressiveness
  - Delusions
  - Hallucinations
  - Wandering
  - Depression
  - Sleep disturbance
  - Yelling / calling out

Causes of Behavioral Symptoms:

- Damage to part of the brain (R hemisphere & R frontal lobe)
- These areas of brain are mediators of social and emotional behaviors.
- Behavior is no longer under conscious control of the individual.

Causes of Behavioral Symptoms:

Even when brain is no longer able to process information to understand what is going on, persons with dementia are very perceptive/sensitive emotionally.

If caregivers are anxious, hurried, angry, etc. the individual with dementia will sense this and may become distressed.
**Non-pharmacological Interventions in Nursing – (top 10)**

- Remain flexible
- Respond to emotion, not behavior
- Don’t argue
- Use memory aide
- Acknowledge request & respond to them
- Look for reasons for behavior
- Collaborate with other disciplines
- Explore various solutions
- Don’t take it personally!
- Talk with a colleague

**Personal Care with Dignity: (Top 10)**

- Be flexible – adapt to their preference
- Help them stay as independent as possible
- Guide by using step-by-step instructions
- Communicate as suggested already
- Avoid rushing the person
- Encourage, reassure, and praise
- Watch for unspoken communication
- Consider using different products (what do they use at home)
- Be patient, kind and understanding
- Experiment with new approaches

**Nursing Interventions: Communication Tips (Top 10)**

- Be calm
- Focus on feelings, not facts
- Pay attention to the tone of the voice
- Address by preferred name
- Speak slowly using simple words
- Ask 1 question at a time
- Avoid vague words
- Don’t talk about the person as if they aren’t there
- Use gestures
- Be patient, flexible and understanding

**Response to behavioral symptoms:**

- Dealing with behaviors are major cause of stress and burnout for care providers
- 2 strategies:
  1. Blame the disease not the person
  2. Interpret behavior according to knowledge of person’s history
Web Sites:

- National Institute of Mental Health www.nimh.nih.gov
- National Institute of Neurological Disorders and Stroke (NINDS) www.ninds.nih.gov
- Alzheimer’s Association www.alz.org (put in zip code for most local Alzheimer’s Association office)
- National Institute on Aging www.nia.nih.gov

Questions / Further Discussion