

Dementia: Definitions, Description and Assessments

Beatrice Groene, MD

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Today's learning objectives are:

1. To better understand normal cognitive function
2. To recognize differences between normal aging, Minor Cognitive Disorder, Major Cognitive Disorder and Dementia
3. To identify conditions often confused with dementia
4. To understand the specific information used in assessing a patient for dementia

Cognitive Function

Cognitive function is how we acquire and process information.

- Attention - Being able to stay focused on something despite distractions, and long enough to get the needed information
- Perception - The information we take in with our 5 senses
- Memory- Includes short term, intermediate and long term
- Executive function- Judgement and decision-making

Executive Function

IS VITAL TO SAFETY/DANGER AWARENESS

- How we make decisions, solve problems and use judgment
- The ability to make any plan (however simple) and follow an appropriate sequence of action
- Response to feedback and error correction
- Socially appropriate behavior

What are normal changes in brain function seen with aging?

The MOST COMMON symptom of a normally aging brain is SLOWER processing of information

- An aging brain can still process NEW information, but it's slower than it used to be
- An aging brain becomes less efficient and is forgetful for general things like names and numbers
- Because of the forgetfulness, a normally aging brain has a greater need for information to be IN CONTEXT in order to be retrieved

On the positive side...

- A normal aging brain retains general knowledge and vocabulary
- Retains memory for relevant, well-learned material
- Retains recall of past personal or historic events

Normal aging adults without dementia will still have decreasing brain function

- Only about 4% of normal adults between ages 65-69 will have moderate to severe memory problems (require some support)
- But that number increases to 36% by age 85
- Even without dementia, the risk for memory problems increases with age.

Ref- Federal Interagency Forum on Age-Related Statistics 2000

Neurocognitive Disorder

- Neurocognitive disorders are disorders where impaired cognition has NOT been present from birth or very early life
- Represents a DECLINE from a previous, higher level of function

In general, the term “neurocognitive disorder” is more customarily used for conditions that affect younger individuals where the cause is brain trauma, HIV etc. The term “dementia” is more customarily used for disorders like the degenerative dementias that usually affect older adults.

Mild Cognitive Disorder is a type of Neurocognitive Disorder where:

- There is evidence of MODEST cognitive decline from previous level of function
- The decline in function does NOT interfere with the person's independence (although there may be more effort, time, or strategies required to maintain function)
- The cognitive decline is NOT due to delirium
- The cognitive decline is NOT due to other mental disorders such as depression or schizophrenia

Mild Neurocognitive Disorder usually progresses to Dementia over time, but for some the progression may be slow

Dementia is a type of Neurocognitive Disorder where:

- There is evidence of significant cognitive decline from previous function
- The decline in function interferes with the person's independence
- The person does NOT have delirium
- The symptoms are not better explained by another disorder such as depression or schizophrenia

Cognitive deficits are very common in mental illnesses such as schizophrenia, bipolar, etc., but only disorders whose CORE FEATURES are cognitive can be considered for a dementia diagnosis

The Most Common Dementias:

1. Alzheimer's Disease – Up to 70% of Dementias; memory and speech problems are the earliest symptoms
2. Parkinson's Disease Dementia – Up to 20% of Dementias; problems with attention and executive function are the earliest symptoms
3. Vascular Dementia – Up to 10% of Dementias; variable symptoms

What are early symptoms of dementia?

- Memory slips occur more and more often
- Social behaviors may become less appropriate
- The person may become suspicious, which can lead to isolation and avoidance of other people, even potential helpers
- A decline in personal hygiene, either from not noticing, not remembering or not caring
- Hoarding

(cont'd)

Some dementias can be reversed as long as they haven't already caused too much damage

- Drug toxicity- When a patient has to see several different doctors for several conditions, and all the doctors prescribe medications, there is a risk of the medications reacting with each other or building up to higher levels than expected, resulting in dementia. Very powerful drugs like the cancer chemotherapies can also cause dementia symptoms which may or may not reverse; this is given the common name of “chemobrain.”
- Vitamin B12 deficiency and hypothyroidism can both cause dementia, and supplementation with B12 or thyroid hormone can reverse the dementia if it hasn't caused too much damage or gone untreated too long

Some dementias can't be reversed, but they can be improved with medical treatment or surgery

- Alcohol dependence
- Epilepsy (poorly controlled)
- Syphilis
- Fungal infections
- Tumors
- Subdural hematoma
- Normal pressure hydrocephalus

Dementia: timeline of development

- An important symptom of dementia is its SLOW TIMELINE: developing over months or years
- It can occur more quickly after brain trauma, stroke or brain surgery
- The slow timeline of dementia is similar to the timeline of depression but different from the timeline for delirium
- Dementia may seem to have a sudden onset if the person loses a caregiver, or loses familiar environmental cues (as in evacuation or hospitalization)

Dementia or depression: which one is it?

- Depression is THE most common mental illness confused with dementia
- Depression mimics dementia so well it is called “Pseudo – dementia”
- In BOTH dementia and depression:
 - Gradual onset over months
 - The attention becomes impaired
 - Mental function slows down
 - Memory declines
 - They neglect self care

How can you tell depression from dementia?

- Depression can sometimes be picked up with a thorough mental status exam
- A detailed social history also helps differentiate
- Sometimes the only way to tell is to treat the patient with antidepressants: a depression will improve but dementia won't
- Once the depression resolves, the apparent dementia symptoms resolve also

Dementia or delirium: which one is it?

- Delirium is directly associated with physical medical problems.
- It is seen in patients immediately after major surgery, with infections, with high fever, in medication side effects, in drug reactions or withdrawal
- Its HALLMARK is impaired attention
- The onset is RAPID, occurring in hours or days
- The sleep-wake cycle may be disturbed
- Hallucinations are frequent
- It often resolves within 48 hours once the medical problem has been resolved or controlled; although with older people it may take longer

What is the significance of delirium?

- The delirium is a SYMPTOM of a physical or medical problem that should be addressed
- In many individuals the earliest sign of an impending dementia may be a delirium following major surgery. Even if they return to normal function after the delirium resolves, the patient and their family and clinicians should now all be alerted that this patient is at high risk for developing dementia at a later date.

How do we arrive at a dementia diagnosis?

1. A dementia – specific social history is one of the most critical elements of a dementia assessment

A standard social history usually includes:

- Family of origin
- Education and occupation
- Substance abuse and legal history
- Military service
- Marriage and children

Examples of tasks which requires specific changes to the standard social history:

- Adoption agency
- Substance abuse facility
- Forensic facility
- School social worker
- Dementia assessment

A dementia-specific social history starts with the standard social history, but expands on it.

The first criteria in the DSM V for dementia is “there is evidence of significant cognitive decline from a previous higher level of function.”

The dementia-specific social history explores what the patients' social function **USED** to be like, **WHEN/HOW** they started to change, and what they are like **NOW**.

Case I

An older man with chronic schizophrenia was residing in a group home and had several psychiatric hospitalizations. Nursing facility placement was sought due to a new diagnosis of dementia, but there was insufficient medical data to support the diagnosis.

A standard social history described the patient as having grown up in his family of origin and graduated from high school. He was never employed due to severe mental illness and is on disability. He never had substance abuse or legal problems, and never married or had kids.

Case I (cont'd.)

At the group home he neglected his hygiene and attended activities, but would not participate. He was often non-compliant with medication, which resulted in repeat psychiatric hospitalization.

The request for nursing facility placement was declined twice because there was nothing to suggest dementia. (cont'd.)

Case 1 cont'd. contribution of the social history

At the third application, a dementia-specific social history was submitted after the social worker was able to phone the man's sister in California. The patient had been stable for over 35 years. During that time, he had resided in group homes and assisted living facilities near family, with whom he maintained relationships. He socialized with his peers and was cooperative with staff. He attended his hygiene and was reliable about taking his medications. He could come and go freely and was able to make some of his own purchases.

Case #1 cont'd

About 4-5 years ago, the patient's ability to take care of himself declined, but he was initially compliant with his medications and there was no indication by his mental health clinicians that the schizophrenia was the cause. He became less cooperative and less reliable about taking his medications and THEN suffered relapses of his schizophrenia, requiring hospitalization. Even though his mental illness was well controlled, he had never returned to his previous level of cognitive function and could no longer function safely or reliably in an unrestricted environment.

How do we arrive at a dementia diagnosis? (cont'd)

2. A Mental Status Exam by a clinician in a narrative format (not a checklist) is extremely important. It is MOST helpful when the MSE is done at admission and again as the patient approaches discharge. A person's mental status can change dramatically in a matter of days, especially if they receive treatment for depression, psychosis or delirium.

A mental status exam can be considered recent if it is done within about a week of our receiving the application.

Weaknesses of a checklist evaluation and single-word descriptors

- Lack of information about the degree of symptoms
- Inconsistencies between examiners
- Examiners are forced to choose between a limited list of descriptions

Each patient was “disoriented” and “confused.”

A narrative describes the first patient as “confused as to where she is, tries to get off the exam table, resists blood work by fearfully pulling away from staff, tries to pull off her hospital gown.”

The other patient was described as “pleasantly confused, wanders into other patient’s rooms but is easily redirected, thinks the aide is her doctor, dislikes having blood drawn but is easily bribed with juice or a cookie.”

Two different examiners assess the same patient.

Inconsistent mental status exam due to checklist choices.

Examiner 1:

Attention: Impaired\Concentration: Impaired\Memory: Impaired

Examiner 2:

Attention: Good\Concentration: Good\Memory: Good

How do we arrive at a dementia diagnosis? (cont'd)

3. Medical, laboratory and radiologic evaluations are very important but are beyond the scope of this discussion.

Neurocognitive testing (cont'd.)

- There are 2 general types of neurocognitive testing, one is screening tests
 - Screening tests assess the POSSIBILITY that someone has a particular disorder
 - Screening tests are NOT sensitive enough to make a diagnosis
 - The purpose of screening tests is to identify patients who warrant more detailed assessment

Weaknesses in the Mini-Mental State Exam

- It misses people with mild, but still significant memory problems
- It does not assess executive function
- It has an unacceptably high rate of false positives (indicates someone has dementia, when in fact they really may have anxiety, PTSD, depression, delirium, schizophrenia, bipolar, schizoaffective, severe fatigue, drug withdrawal, etc.)

Examples of using the Mini-Mental State Exam to track cognitive function

Patient A: Admission score 11, two weeks later score 26

Patient B: Admission score 10, two weeks later score 12

Patient C: Admission score 11, two weeks later score 14, six weeks later score 23

Remember that a perfect score is 30.

Diagnostic Neurocognitive testing

- The other type of neurocognitive testing is diagnostic testing. It can only be done by a specialist, usually a psychologist. This testing is VERY detailed and takes several hours, covering a wide range of domains.
- It is seldom available in a general medical hospital but is extremely helpful when done by a properly trained professional.

Best information for an uninterrupted processing of a PASRR application

- Dementia-specific social history
- A narrative style mental status exam CLOSER to time of discharge
- If using the mini mental state exam or MOCA, please test the patient twice (close to admission and close to discharge)
- Medical information

Summary

- Today we looked at several pertinent definitions.
- We looked at the changes seen in normal aging.
- We went over the symptoms of early dementia.
- We discussed common examples of dementias that can be reversed, and those that can be improved.
- We compared/contrasted symptoms of dementia with depression.
- We compared/contrasted symptoms of dementia with delirium.

Summary, cont'd

- We discussed a dementia-specific social history
- We discussed the superiority of a narrative format mental status exam over a checklist format for both diagnosis and placement decisions
- How best to use the mini state exam
- Discussed how we look at the whole person and not just the diagnosis in making PASRR placement determinations.

Summary, cont'd

- Our goal is to always continue to improve our services.
- A better understanding of dementia and its assessment can help us improve communication with providers, so that we can get the information most helpful to our tasks in a timely manner.
- But the bottom line is always the patient. We are a service agency, and we are tasked with helping provide the best services and placement for those individuals who can no longer help themselves.
- It is hoped that this presentation can serve to further that goal.

References

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