Dementia and changes in DSM 5

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• Member, Executive Committee for VA sponsored clinical trial evaluating effectiveness of memantine v. vitamin E v. placebo for Alzheimer’s disease. Forrest supplied memantine for the study.
DSM Then and Now

1980

1987

1994

2000

2013
Diagnostic and Statistical Manual

• Published by the American Psychiatric Association
• Used by mental health professionals for diagnosis
• Describes symptoms for mental disorders
• Contains diagnostic classifications by category, diagnostic criteria sets and descriptive texts
What’s new in DSM 5?

- Roman numeral has been replaced by Arabic numeral 5
- Multiaxial system discarded
- NOS diagnoses replaced with two options: Other specified disorder or unspecified disorder to enhance utility for the clinician
- Category of delirium, dementia, amnestic and other cognitive disorders now Neurocognitive disorders
Delirium

- Distinct category from major/mild NCD
- Symptom severity fluctuates, often within course of a day
- Can coexist with major/mild NCD
- Disturbance of attention
- Change in an additional cognitive domain
- Represents an acute change from baseline
- Does not occur in reduced state of arousal (coma)
Dementia in DSM-IV TR

• Development of MULTIPLE cognitive deficits, manifested by both:

• 1. Memory impairment (impairment in learning or recalling learned information) AND

• 2. Cognitive Impairment – one or more of:
  a. Aphasia - language difficulty
  b. Apraxia - impaired motor activity
  c. Agnosia - failure to recognize and identify objects
  d. Executive functioning - planning/organization
Dementia in DSM IV TR

- Impaired social/occupational functioning
- Gradual onset, continuous decline
- Not exclusively during the course of delirium
- Deficits not due to: other CNS conditions, other Axis I or substance-induced conditions, and systemic conditions have been ruled out.
Neurocognitive disorder

- Mild or major neurocognitive disorder
- Decline in functioning
- Need to assess 6 cognitive domains
- Need for formal cognitive testing or equivalent clinical evaluation
- Subtype the NCD through determination of etiology (probable v. possible)
- Subspecify with/without behavioral disturbances
Cognitive Domains

• COMPLEX ATTENTION: sustained/selective attention, processing speed
• EXECUTIVE ABILITY: planning, decision-making, error correction, mental flexibility, overriding habits
• LEARNING AND MEMORY: recent and immediate
• LANGUAGE: expressive and receptive
• VISUOCONSTRUCTION-PERCEPTUAL ABILITY: construction, visual perception
• SOCIAL COGNITION: behavioral regulation, emotions
Cognitive Domains: symptoms or observations

EXECUTIVE ABILITY

• **MAJOR:** abandons complex project; needs to rely on others to plan appointments or make decisions. Needs to focus on one task at a time.

• **MINOR:** increased effort to complete multi stage projects; difficulty resuming tasks interrupted by visitors or phone calls. May report social events are less enjoyable due to increased effort required to follow shifting conversations.
Cognitive Domains: assessments

EXECUTIVE ABILITY

• PLANNING: Finds exit to maze

• WORKING MEMORY: adding up a list of numbers; repeating a span of numbers/words backwards

• OVERRIDING HABITS: To be correct, one must choose a more effortful solution (EX: green yellow)

• MENTAL FLEXIBILITY: able to shift between two tasks or rules: EX. Change from adding numbers to putting numbers in order
Cognitive Domain: Symptoms or Observations

LANGUAGE

• MAJOR: difficulties with expressive/receptive; uses general terms: “that thing”. Prefers pronouns rather than names; echolalia, reduced spontaneity of output, mutism

• MINOR: word-finding difficulties; grammatical errors (incorrect use of prepositions, articles, etc)
Cognitive Domains: Assessments

LANGUAGE

- **CONFRONTATIONAL NAMING**: identifies objects or pictures
- **FLUENCY**: name as many animals as possible starting with letter “f” in 1 minute
- **RECEPTIVE LANGUAGE**: comprehension - word definition
Mild Neurocognitive Disorder

• Could revert back to normal (not the same as mild dementia)
• Does progress to dementia at rate of approximately 10-12% per year, which is 6-8 times the rate for cognitively intact
S02: Mild Neurocognitive Disorder

- A. Cognitive decline from previous level in one or more domains based on:
- Reports by patient or informant or clinical observation AND
- Mild deficits on objective assessment: 1-2 SD below Mean OR between 3rd and 16th percentile OR 0.5 SD decline from baseline
S02: Mild Neurocognitive Disorder

B. Cognitive deficits are insufficient to interfere with daily functioning but more effort is needed to maintain independence
C. Does not occur in context of delirium
D. Not attributable to another Axis I disorder
S04: Major Neurocognitive Disorder

A. Substantial cognitive decline from previous level in one or more domains based on:

- Reports by patient or informant or clinical observation AND
- Decline in performance on objective assessment: > SD below Mean OR below 3rd percentile on testing or equivalent evaluation
S04: Major Neurocognitive Disorder

B. Cognitive deficits interfere with daily functioning
C. Does not occur in context of delirium
D. Not attributable to another Axis I disorder
Subtypes of Neurocognitive Disorders

- Alzheimers disease
- Vascular
- Frontotemporal
- Traumatic brain injury
- Lewy body dementia
- Parkinson’s disease
- HIV infection

- Prion Disease
- Other medical condition
- Substance induced
- Medication induced
- Multiple etiologies
- Unspecified
Subtypes of NCD: Probable v. Possible

**PROBABLE**

- Two core features
  
  OR
  
- One suggestive feature with one or more core features

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**POSSIBLE**

- One Core feature
  
  OR
  
- One or more suggestive features
Subtypes of NCD: Example Lewy Body

Core features

• Fluctuating cognition with pronounced variations in attention and alertness
• Recurrent visual hallucinations that are typically well formed and detailed
• Spontaneous features of Parkinsonism with onset at least one ear later than the cognitive impairment
Subtypes of NCD: Example Lewy Body

Suggestive features

• Rapid eye movement sleep behavior disorder
• Severe neuroleptic sensitivity
• Low dopamine transporter uptake in basal ganglia demonstrated by SPECT or PET imaging
Cognitive Assessment in a busy practice

- Cognitive assessment is now required by CMS in annual wellness visit
- Structured screen
- Objective testing
- Referral for positive screens
Cognitive Assessment: screen

- During the past 12 months, have you experienced confusion or memory loss that is happening more often or is getting worse?
- During the past 7 days, did you need help from others to perform everyday activities such as eating, getting dressed, grooming, bathing, walking, or using the toilet?
- During the past 7 days, did you need help from others to take care of things such as laundry and housekeeping, banking, shopping, using the telephone, food preparation, transportation, or taking your own medications?
Cognitive Assessment: brief assessment

• 5 minutes or less to administer
• Validated in PC
• Easy to administer
• Good-excellent psychometric properties
• Low educational, language or cultural bias
• No added cost: GPCOG, MiniCog, MIS: Copyright owners allow free use by clinicians as clinical tools
Cognitive Assessment: brief assessment

- MMSE: most known; ceiling effect; proprietary
  Folstein, J Psych Res 1975 <24
- GPCOG: has patient/informant components
  Brodaty, Jags 2002 < 5
- MiniCog: validated in community-dwelling elderly
  Boorson, IJGP 2000, 2006 _3
- MIS: verbally administered
  Kuslansky, JAGS 2002 _4
Cordell CB, Boorson S, et.al. Alzheimers & Dementia. 2013 1-10
DSM 5 and Dementia: Conclusions

• Reduce stigma associated diagnosis
dementia = “without mind”

• Includes those illnesses that do not progress (TBI for example) and/or that affect younger people

• Incorporates mild classification in keeping with growing evidence base

• Focus on decline from previous abilities

• Relies on observable behavior and incorporates assessments of function
CASE EXAMPLES
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