

# Pseudodementia: Does it Really Exist?



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# Objectives

- Discuss the evolution of the term pseudodementia
- Review the complex relationship between depression and dementia
- To explore new concepts in pseudodementia

# Pseudodementia

# Pseudodementia

- Emerged as a concept from a time where all dementia was thought to be irreversible
- Highlighted the need for a thorough work up of dementia patients to avoid misdiagnosing dementia with its consequences
- Enhances the recognition and treatment of mental health problems in the elderly

# Pseudodementia: History

- In the 1880s Wernicke developed the term to describe functional hysteria
- In 1883 Mairet described the interaction between dementia, depression, paralysis and brain localization and a relationship between depression and cognitive impairment was established
- Pseudodementia was not widely used until re-introduced by Madden for signs and symptoms of dementia that disappeared with treatment of underlying psychosis

# Pseudodementia: History

- In 1961 Kiloh described 10 cases of pseudodementia. He argued that the term should be descriptive only and asserted that most cases were a result of endogenous depression
- Wells (1979) wrote a widely cited paper on pseudodementia describing it as a syndrome in which dementia is mimicked by functional psychiatric illness
- Eventually, the term came to describe any 'functional' (as opposed to 'organic') condition that caused cognitive impairment

# Proposed Diagnostic Criteria for Pseudodementia

- Intellectual impairment in a patient with a primary psychiatric disorder
- Features of impairment are similar to those seen in CNS disorders
- The cognitive deficits are reversible
- There is no known neurological condition to account for the presentation

# Prevalence

“Of patients referred for dementia evaluation, reports in the literature have ranged from 2% to 32% found to have a pseudodementia, with most reporting about 10%.

***There also is suggestion of over-diagnosis of degenerative dementia, with some studies reporting 20-50% of patients being misdiagnosed who really have a pseudodementia.***

Most cases occur in later life, with few reports in early or midlife.”

Cannon, B <http://home.epix.net/~tcannon1/depressionvsdementia.htm>

# The Relationship Between Depression and Dementia

# Late Life Depression

- Less family history of depression
- Higher incidence of impairments on neuropsych testing (attention, processing)
- Risk factor or prodrome for AD\*?
- Higher incidence of white matter changes
- Decreased frontal lobe activity in functional neuroimaging
- Higher incidence of medical morbidity

# Depression in Dementia

- Depression represents a heterogeneous group of disorders
- Reports of prevalence in dementia are highly variable and depend on cohorts and diagnostic criteria
- DSM IV Major depressive disorder is not common in AD patients\*, although the range of prevalence is high(0-50%)
- Depressive symptoms as high as 70% in AD\*\*
- Dementia is associated with poor outcomes in depression\*\*\*
- Depression may contribute to the cause and also be the effect of brain abnormalities in patients with AD\*\*\*

\*Weiner, MF, et al, Dement Geriatr Cogn Disord. 2002;13(1):8-12.

\*\*Burns et al, BJP 1990; 157:81-86

\*\*\*Alexopolous, G Am J. Psychiatry 160:5, May 2003

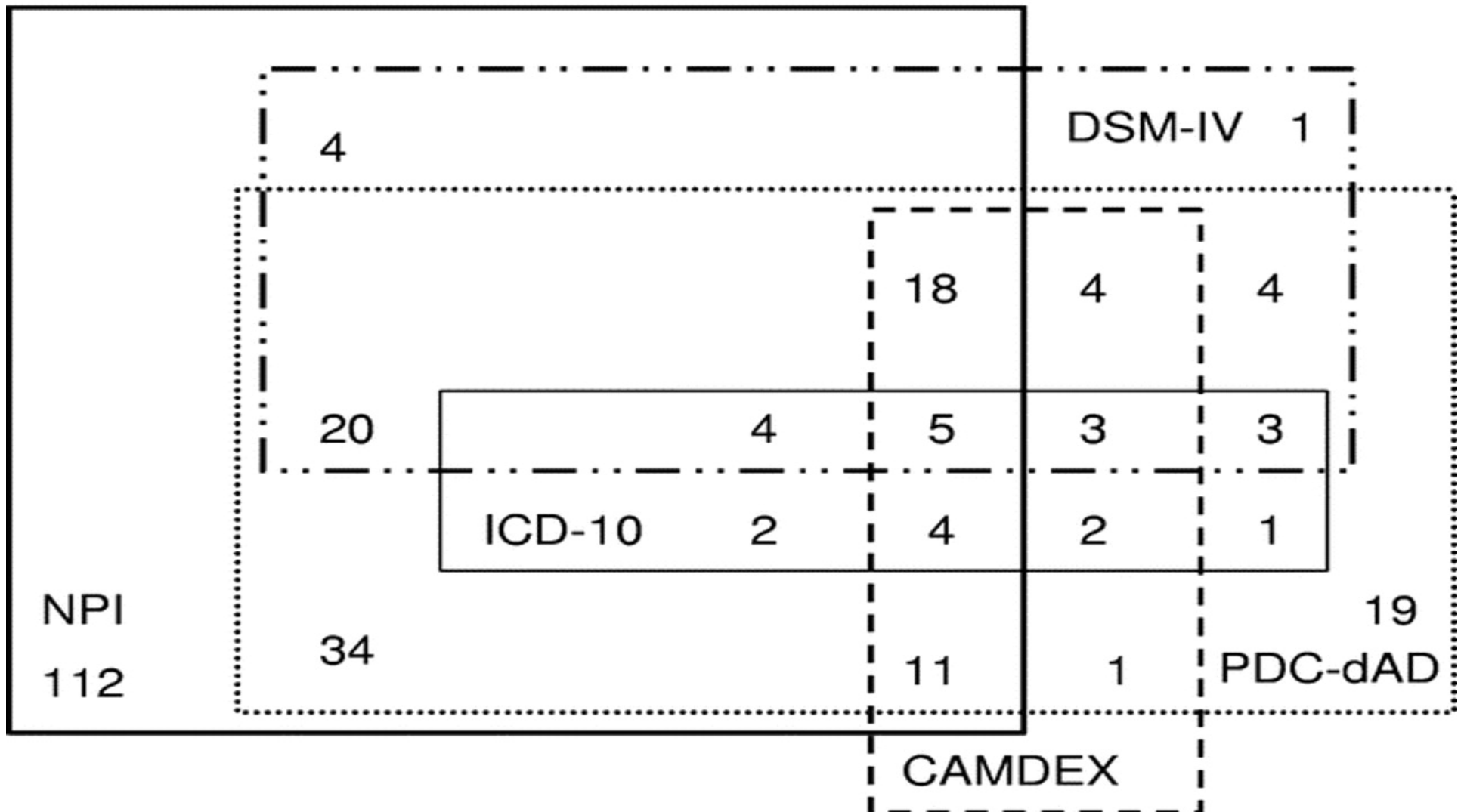
# Depression and Dementia: A Clinical Dilemma

- Symptom overlap
- Caregivers over-reporting

# Symptom Overlap

- MDE diagnostic criteria
  - Loss of interest
  - Poor concentration/indecisiveness
  - Decreased energy
  - Insomnia
  - Weight loss
  - Psychomotor agitation
- In MDE symptoms need to coexist in the same two week period and not be due to a general medical condition

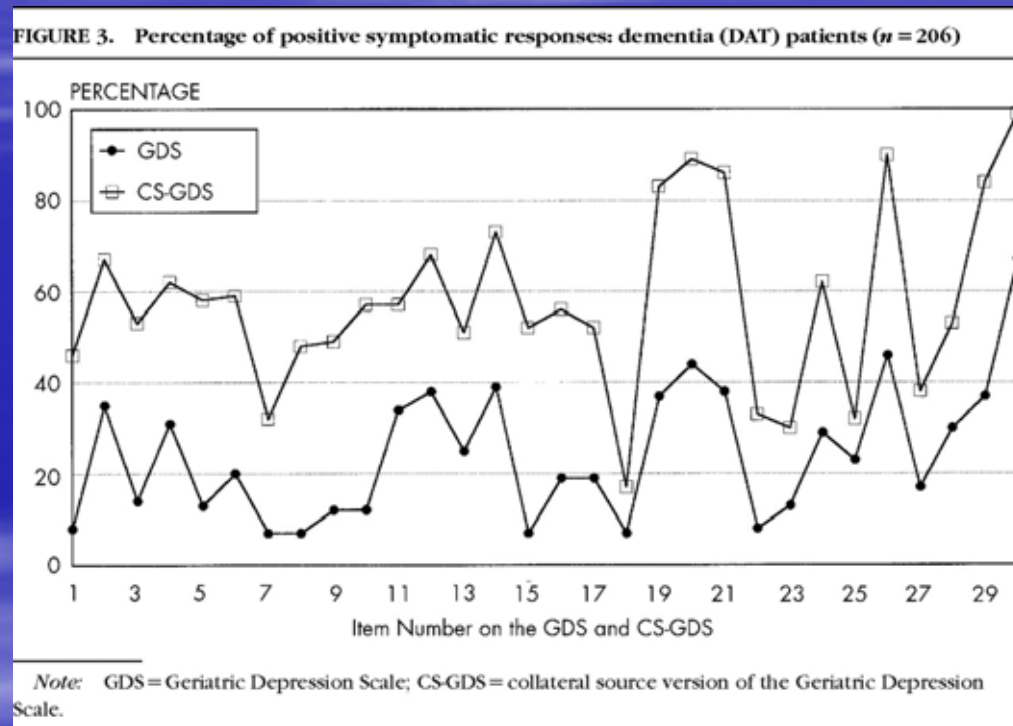
# Comparison of Different Clinical Diagnostic Criteria for Depression in AD



# Comparison of Different Clinical Diagnostic Criteria for Depression in AD: Results

- Variability in the number of patients captured by the different diagnostic criteria
- Discordance between the patients captured by various criteria
- Multiple definitions lead to highly variable reports regarding the prevalence of depression in dementia

# Disagreement in Reporting Depressive Symptoms in AD Between Patients and Collateral Sources



19 Do you find life very exciting ?

20 Is it hard for you to get started on new projects ?

21 Do you feel full of energy?

Burke et al, Am J Geriatr Psychiatry 6:308-319, November 1998

# Distinction Between Preclinical AD and Depression: Visser, et al.

- The study investigated prospectively a cohort of nondemented older subjects with cognitive impairment who attended a memory clinic
- Goals:
  - To establish the prevalence of depression in patients with pre-clinical AD
  - To investigate whether subjects with preclinical AD and depression could be differentiated from subjects with depression-related cognitive impairment with respect to age, depression severity (mild and moderate) and cognitive performance

# Methods

- 111 subjects with very mild or mild cognitive decline (GDS 2-3)
- Patients with a Dx of dementia, MMSE<24 and GDS >3 were excluded
- Subjects underwent a standard baseline assessment, MMSE, HDRS, GDS, and BDRS
- Patients were seen after 2 and 5 years and diagnosed with dementia and AD according to DSM IV and NINCDS-ADRDA criteria and a neuropsych assessment that included; verbal learning test, memory scanning task letter and verbal fluency
- Depression was diagnosed in patients who fulfilled criteria for major or minor depression and divided into mildly or moderately depressed (<17,>17 HDRS)

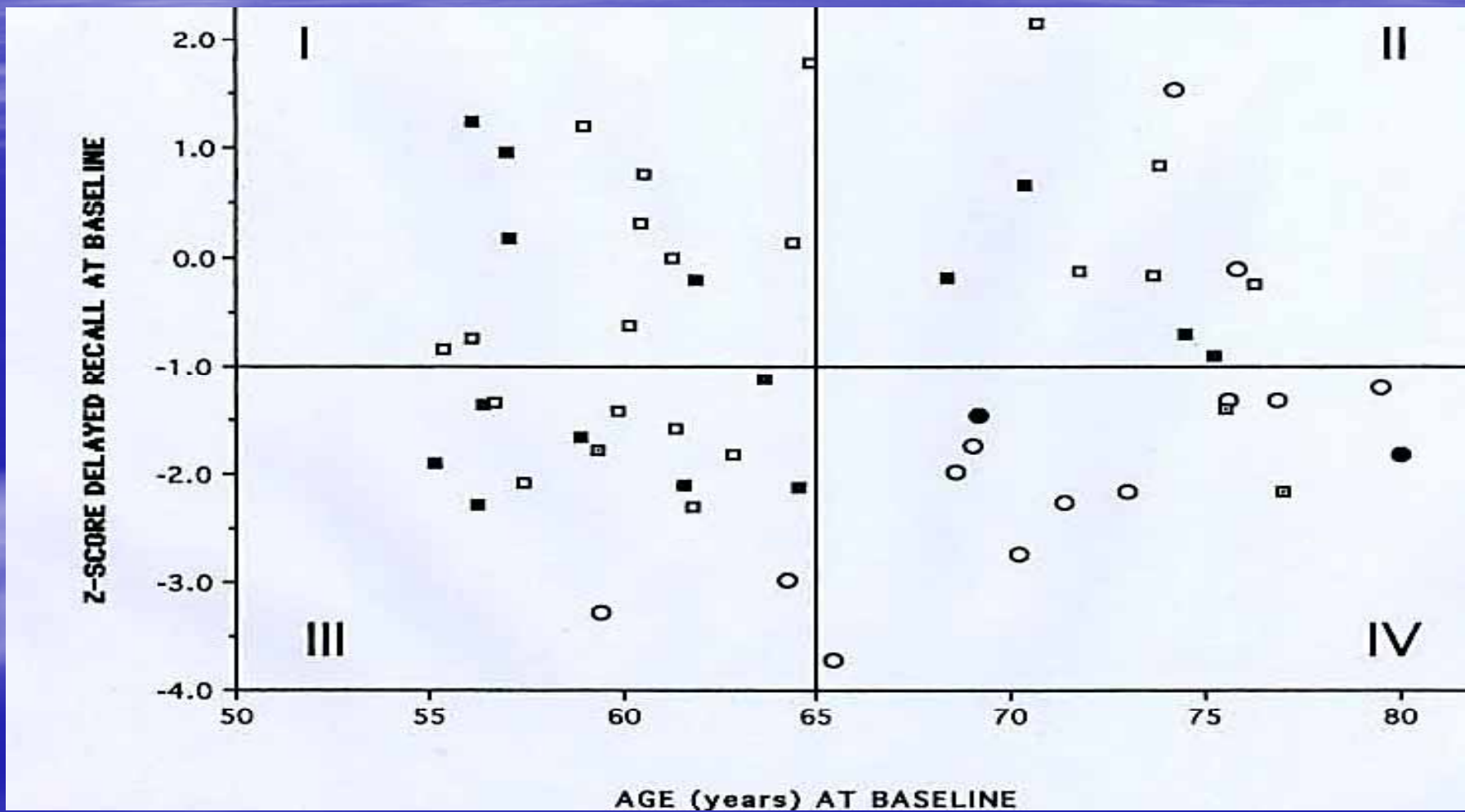
# Results

- 98/111 (88%) were seen after 2 years and 52/111 (53%) were seen after 5 years.
- 62/111 (56%) were diagnosed with depression at baseline; 60% of the patients with preclinical AD and 52% of patients without dementia at follow-up
- Mild depression tended to be more common in the depressed preclinical AD group than in the non-demented group

# Results

- Patients with mild or moderate depression and no dementia at follow-up were significantly younger than those with dementia at follow-up ( $p < .001$ )
- Delayed recall scores in patients with moderate depression were significantly better at baseline than in patients with preclinical AD ( $p = .001$ )
- Except for the HDRS the baseline scores in patients with mild and moderate depression were similar at follow-up

# Age and Delayed Word Recall are Predictors of AD in patients with Depression and Cognitive Impairment



# Conclusions

- Depression is very common in preclinical AD and is often mild
- It is possible to predict AD in depressed patients with high accuracy on the basis of age and memory function
- Depression is less often an imitator than a predictor of AD\*

# Does Pseudodementia Predict Dementia?

- Kral (1983) - 20/22 (91%) patients developed AD over 4-18 years
- Kral and Emery (1989) – 39/44 (89%) developed AD over an average period of 8 years
- Reding (1985) 16/28 (57%) “non-dementing depressed” developed “frank dementia” over 3 years. 13/16 originally had a subtle sign of neurological disease
- Neusbaum (1991) 35 patients  $\geq 70$  y/o, MDE or dysthymia without cognitive impairment – 8/35 developed AD after 2 years
- Alexopoulos (1993) 10/23 (43%) patients diagnosed with “reversible dementia” developed dementia over 34 months

# Pseudodementia: Does it Really Exist?

- In most cases the dementia is real and likely to persist despite the treatment of depression
- Patients with dementia should still be screened and treated for depression
- Successful treatment of depression may not “reverse” the dementia but may improve function and quality of life

# How Prevalent are Reversible Dementias?

- In the 1970s optimistic estimations of 10-40%
- In a meta-analysis by Clarfield including 39 studies from 1897-2002
  - Potentially reversible causes were seen in 9%
  - Only 0.6% actually reversed
    - 0.29% partially
    - 0.31% fully
- Less reversible dementia in patients with depression
  - Better and more consistent follow-up
- ***Initial cognitive improvement may be misinterpreted as reversibility, especially if follow-up is not undertaken***

# New Concepts in Pseudodementia

# Variability in the Expression of Medical Illness

- Cultural influences
- Character traits
- Gender?
- Life experiences



# Conditions Where Cognitive Symptoms are Feigned or Exaggerated

- Conversion Disorder
  - Unconscious
  - Unresolved conflict
- Factitious Disorder
  - Conscious and unconscious
  - Strong identification with 'sick' role
  - Primary gain
- Malingering
  - Fully conscious
  - Secondary gain

# Conversion Pseudodementia: Case Reports

- Dementia Syndrome of Dependency (Howells 1989)
- Functional Dementia due to Hysterical Behaviour (Kirby 1987, 1989)
- Severe and Persistent Regressive Behaviour in Elderly Subjects Without Cognitive Decline (Padoani, 2000)
- Conversion Pseudodementia in Older People (Hepple 2004)

# Cogniform Disorder and Cogniform Condition

## Continuum



# Cogniform Disorder and Cogniform Condition

- Patients often present with symptoms that are in excess of objective evidence
  - Pseudoseizures
- Neuropsychologists have often reported excessive symptomatology involving cognitive complaints
- These individuals do not fit into DSM IV criteria for Somatization Disorder, Conversion Disorder and Malingering
- Awareness of exaggeration is likely on a continuum from fully conscious to largely unconscious
- The individual may adopt a “sick role” and/or there may be secondary gain

# Cogniform Disorder and Cogniform Condition

- A pattern of cognitive complaints or low scores on neuropsych testing that cannot be explained by a neurological disorder or other medical causes
- Cogniform Disorder- excessive symptoms in most areas of life and almost all the time
- Cogniform Condition – lack of evidence of widespread dysfunction

# Summary

- Depression and dementia coexist and overlap
- Dementia should not be diagnosed when it can be accounted for by other medical conditions, including depression and delirium
- The diagnosis and treatment of dementia should not be deferred because of the presence of depressive symptoms felt not to account for the dementia

# Summary

- Truly reversible causes of dementia are much rarer than previously described
- Depression is less likely an imitator of dementia than a predictor of dementia
- Exaggerated cognitive impairment may be underappreciated in clinical practice

# 5<sup>th</sup> ccd

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