

Factors Influencing the Frequency of Dementia Evaluations In a Population-Representative Sample in the United States

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BACKGROUND

- Early and specific interventions are most effective for treating dementia
- An evaluation is needed to identify the cause of dementia
- Evaluation of cognitive impairment is appropriate even before dementia develops
- Delays in diagnosis and failure to evaluate dementia substantially impede care
- It is unknown how frequently community physicians in the US evaluate individuals with dementia
- Factors influencing the performance of a dementia evaluation previously have not been studied in a representative US population

OBJECTIVE

Ascertain how demographic and economic factors influence the frequency of community diagnostic evaluations in individuals with dementia

METHODS: The ADAMS Study

- The Aging, Demographics, and Memory Study (ADAMS) is a stratified subsample of 856 participants over age 70 in the Health and Retirement Study (HRS), a biennial survey of health status and economics in a population-representative sample of individuals drawn from throughout the United States
- Cognitive measures are collected as part of the HRS telephone survey
- The ADAMS subsample was selected randomly from the HRS population and stratified by age and cognitive performance, with oversampling of cognitively impaired participants
- Each subject received a 3-4 hour, structured, in-home neurological and neuropsychological evaluation
- Information was collected from a knowledgeable informant and medical records from community physician
- A consensus panel determined whether memory loss, cognitive impairment or dementia was present

METHODS: Data

- We asked informants of individuals with dementia:
 - Whether an evaluation for memory problems had been performed
 - If an evaluation was performed, what they were told caused the memory problem
- Dementia severity was determined by Clinical Dementia Rating (CDR) and Dementia Severity Rating Scale (DSRS) scores
- Demographic, socioeconomic and clinical factors influencing the likelihood of a dementia evaluation were identified by logistic and multi-variate regression

RESULTS

- 308/856 ADAMS subjects had dementia
 - Age 85.4 ± 6.8 (SD)
 - Years of education 9.5 ± 4.3
 - 31% male, 69% female
 - 73% White, 23% African-American, 4% other
- Community physicians evaluated dementia in 145 (47%)
- US geographic region, marital status and race did not significantly affect the likelihood of evaluation

Factors Affecting Likelihood of Dementia Evaluation

	Likelihood Ratio Chi Square	P Value	Odds Ratio (95% confidence limits)
More Severe Dementia			
CDR	30.62	<0.0001	1.78 (1.43-2.21)
DSRS	36.02	<0.0001	1.06 (1.04-1.08)
Female Gender	10.29	0.001	2.252 (1.36-3.72)
Older Age	6.64	0.01	0.96 (0.93-0.99)
More Education	4.55	0.03	1.06 (1.00-1.12)
	Evaluated (mean)	Not Evaluated (mean)	P Value
Greater Net Worth	\$292,735	\$137,946	0.02

Reported Cause of Dementia in 145 Evaluated Subjects

	Frequency	Percent
Non-Specific Causes	63	43.4
Normal Aging	3	2.0
Dementia	40	27.6
Don't Know	20	13.8
Specific Causes	79	56.6
Alzheimer's Disease	39	26.9
Strokes or TIA	20	13.8
Other Specific Causes	23	15.9

CONCLUSIONS

- A minority of patients with dementia documented in a research study have received an evaluation in the community
- Family members often do not report a specific cause of dementia, even when an evaluation was done
- Demographic and economic factors are important determinants of whether a dementia evaluation is performed
- Substantial efforts will be needed to achieve early and specific treatment of dementing disorders in community settings

REFERENCE

Langa KM, Plassman BL, Wallace RB, et al. The Aging, Demographics, and Memory Study: study design and methods. *Neuroepidemiology*. 2005;25(4):181-91.

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