

Factors Associated with Time to Diagnosis of Mild Cognitive Impairment or Dementia in Cognitively Impaired Community Dwelling Older Adults

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INTRODUCTION	METHODS	RESULTS	CONCLUSIONS																																																								
▪ Benefits of early detection of mild cognitive impairment (MCI) and dementia are increasingly recognized. ▪ Prior estimates suggest ~ 3.5 years from symptom onset to dementia diagnosis ▪ Most estimates based on retrospective recall,¹ but objective assessments may provide a more accurate timeline ▪ We estimated time from cognitive impairment (CI) measured by a comprehensive neuropsychological battery to diagnosis and explored predictors of a timely diagnosis	Health Literacy and Cognitive Function among Older Adults (LitCog) cohort study ▪ 613 participants (ages 55-74) recruited from an academic primary care clinic in 2008 ▪ Assessments every 3 years Measures ▪ CI defined using combined Jak/Bondi and Petersen criteria via cognitive battery including 5 domains ▪ MCI/dementia diagnoses from electronic health records (EHR) CI related predictors ▪ Moderate/severe (>1.5 SD) vs. mild (>1 and <1.5) ▪ Amnestic/non-amnestic ▪ Multi vs. single domain ▪ Prior diagnosis for cognitive deficits (e.g. memory) Self-reported predictors ▪ Self-reported overall health ▪ PROMIS depression and anxiety short forms ▪ Lubben Social Network Scale Analyses Cox proportional hazards models used to evaluate predictors (adjusting for age, sex, and race)	▪ Age at time of impairment: mean 66 years (SD=7) ▪ Self-reported demographics: 73% female; 42% Black, 46% White ▪ 34% (n=208) developed cognitive impairment ▪ 26% (n=50) received MCI/dementia diagnosis among participants with 6+ months EHR follow-up (n=195) Time to Diagnosis: ▪ Mean: 6.7 years (SD=4.5) ▪ Median: 5.8 years (range 0.2-16.8). Factors associated with faster diagnosis: ▪ Clinically recognized cognitive deficits ▪ Persistent (non-reversing) impairment ▪ Worse self-reported health ▪ More depressive symptoms ▪ Social Isolation Table 1. Sample Characteristics and Time to Diagnosis of MCI or Dementia. <table><tr><th>Variable</th><th>N=195 n (%)</th><th>HR (95%CI)</th><th>P value</th></tr><tr><td>Self-reported Overall Health</td><td></td><td></td><td></td></tr><tr><td>Fair/poor vs Excellent/V.good/Good</td><td>48 (25)</td><td>2.8 (1.4, 5.5)</td><td>0.003</td></tr><tr><td>Elixhauser Comorbidity Index, mean (SD)</td><td>5.1 (3.0)</td><td>1.1 (1.0, 1.2)</td><td>0.23</td></tr><tr><td>Clinical depressive symptoms</td><td>44 (23)</td><td>2.0 (1.1, 3.9)</td><td>0.04</td></tr><tr><td>Clinical anxiety symptoms</td><td>89 (46)</td><td>1.4 (0.8, 2.5)</td><td>0.21</td></tr><tr><td>Social isolation</td><td>46 (27)</td><td>2.1 (1.1, 3.8)</td><td>0.02</td></tr><tr><td>Normal vision</td><td>90 (47)</td><td>0.8 (0.4, 1.5)</td><td>0.48</td></tr><tr><td>Cognitive Impairment</td><td></td><td></td><td></td></tr><tr><td>Reversed</td><td>76 (39)</td><td>0.3 (0.1, 0.5)</td><td><0.001</td></tr><tr><td>Moderate/severe vs mild</td><td>73 (38)</td><td>1.3 (0.7, 2.3)</td><td>0.43</td></tr><tr><td>Amnestic vs non-amnestic</td><td>50 (26)</td><td>0.8 (0.4, 1.5)</td><td>0.43</td></tr><tr><td>Multi-domain vs single domain</td><td>47 (24)</td><td>1.2 (0.6, 2.3)</td><td>0.66</td></tr><tr><td>Cognitive deficit diagnosis prior</td><td>77 (40)</td><td>5.0 (2.5, 9.8)</td><td><0.001</td></tr></table>	Variable	N=195 n (%)	HR (95%CI)	P value	Self-reported Overall Health				Fair/poor vs Excellent/V.good/Good	48 (25)	2.8 (1.4, 5.5)	0.003	Elixhauser Comorbidity Index, mean (SD)	5.1 (3.0)	1.1 (1.0, 1.2)	0.23	Clinical depressive symptoms	44 (23)	2.0 (1.1, 3.9)	0.04	Clinical anxiety symptoms	89 (46)	1.4 (0.8, 2.5)	0.21	Social isolation	46 (27)	2.1 (1.1, 3.8)	0.02	Normal vision	90 (47)	0.8 (0.4, 1.5)	0.48	Cognitive Impairment				Reversed	76 (39)	0.3 (0.1, 0.5)	<0.001	Moderate/severe vs mild	73 (38)	1.3 (0.7, 2.3)	0.43	Amnestic vs non-amnestic	50 (26)	0.8 (0.4, 1.5)	0.43	Multi-domain vs single domain	47 (24)	1.2 (0.6, 2.3)	0.66	Cognitive deficit diagnosis prior	77 (40)	5.0 (2.5, 9.8)	<0.001	▪ We found time to diagnosis to be longer than prior estimates (~6-7 years) ▪ This likely reflects earlier detection via objective testing vs. recall of symptom onset ▪ Known dementia risk factors (e.g., depression, social isolation)² may accelerate diagnosis, possibly due to earlier clinical recognition
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			Laura Curtis Research Associate Professor l-curtis@northwestern.edu  ALZHEIMER'S ASSOCIATION AAIC 26																																																								