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Response to Gary Esses and Stacie Deiner

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To the Editor

We thank Esses and Deiner for their letter that addresses three main topics: (1) novelty of cognitive-instrumental activities of daily living (C-IADL) for discriminating between older adults with Mild Cognitive Impairments (MCI) and those with normal cognition, (2) potential benefits of measures of observed performance of daily activities, and (3) assessment of observed performance in a short amount of time.

We did not intend to imply that we were the first to show an association between C-IADL performance and cognitive status. As Esses and Deiner note, we cited several published articles that address the association between C-IADL performance and cognitive status.^{1–4} We thank Esses and Deiner for providing additional credence for the association through the work by Pedrosa and colleagues.⁵ Nonetheless, how C-IADL performance is measured may matter. We focused on observed performance.⁶

Many benefits exist for using observed performance of daily activities. We can measure nuanced variability in performance, and, therefore, detect even small changes over time. Validated measures of observed performance detect systematic errors in performance before such errors accumulate to the point of disability. Thus, if the goal is to make specific and well-grounded suggestions for improving performance, observation would be preferable. Observed performance, as Esses and Deiner suggest, is influenced by the contextual environment. Additionally, observed performance does not measure frequency or perceived limitation in performance, which are better assessed with proxy or self-report measures. These are distinct dimensions of performance, and they do not always yield the same results. As Esses and Deiner note, proxy and self-report measures have limitations too, including recall bias.

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Observed performance need not take extensive time. Trained raters may observe C-IADL using standardized tools such as the Performance Assessment of Self-Care Skills (PASS).^{7,8} The PASS offers standardized shopping and checkbook balancing tasks that can be completed and rated using established criteria in 10–15 minutes.⁶ Observed performance differs from measures based on written scenarios, such as the Everyday Problems Test, that ask older adults how they understand, interpret or solve problems based on the written information.⁹

Our study showed that observed performance using the PASS, administered in a short amount of time, discriminated between older adults with normal cognition and those with MCI.⁶ Dialogue about measurement of daily activities is critical, especially related to how and what we choose to measure. We thank Esses and Deiner for raising these issues and agree that we need to operationalize diagnostic criteria for performance of daily activities.

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References

1. Reppermund S, Brodaty H, Crawford JD, et al. Impairment in instrumental activities of daily living with high cognitive demand is an early marker of mild cognitive impairment: the Sydney Memory and Ageing Study. *Psychol Med*. 2013;1–9.
2. Reppermund S, Sachdev PS, Crawford J, et al. The relationship of neuropsychological function to instrumental activities of daily living in mild cognitive impairment. *Int J Geriatr Psychiatry*. 2011; 26:843–852. [PubMed: 20845500]

3. Jefferson AL, Byerly LK, Vanderhill S, et al. Characterization of activities of daily living in individuals with mild cognitive impairment. *Am J Geriatr Psychiatry*. 2008; 16:375–383. [PubMed: 18332397]
4. Wadley V, Okonkwo O, Crowe M, et al. Mild cognitive impairment and everyday function: Evidence of Reduced speed in daily living. *Am J Geriatr Psychiatry*. 2008; 5:416–424. [PubMed: 18448852]
5. Pedrosa H, De Sa A, Guerreiro M, et al. Functional evaluation distinguishes MCI patients from healthy elderly people—the ADCS/MCI/ADL scale. *J Nutr Health Aging*. 2010; 14:703–709. [PubMed: 20922349]
6. Rodakowski J, Skidmore E, Reynolds C, et al. Can performance of daily activities discriminate between older adults with normal cognitive function and those with mild cognitive impairment? *J Am Geriatr Soc*. 2014; 62:1347–1352. [PubMed: 24890517]
7. Rogers, J.; Holm, M. Performance Assessment of Self-Care Skills (PASS, Versions 3.1). Pittsburgh: 1989.
8. Holm, MB.; Rogers, JC. The Performance Assessment of Self-Care Skills (PASS). In: Hemphill-Pearson, B., editor. *Assessments in Occupational Therapy Mental Health*. 2. ThoroFare, NJ: SLACK; 2008. p. 101-110.
9. Schmitter-Edgecombe M, Parsey C, Cook DJ. Cognitive correlates of functional performance in older adults: Comparison of self-report, direct observation, and performance-based measures. *J Int Neuropsychol Soc*. 2011; 17:853–864. [PubMed: 21729400]