Capsule Commentary on Kiechle et. al, Different Measures, Different Outcomes? A Systematic Review of Performance-Based versus Self-Reported Measures of Health Literacy and Numeracy

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The review by Kiechle et al.¹ compared self-reported and performance-based measures of health literacy and numeracy in relation to several health outcomes. The authors asked a focused clinical question and conducted a reasonably broad search, though they limited themselves to MEDLINE and did not search other databases such as EMBASE, CINAHL, the Cochrane library, PsycINFO or ERIC. While the 2011 Agency for Healthcare Research and Quality (AHRQ) systematic review of literacy and numeracy found 87 articles,² Kiechle et al. found only four studies directly comparing performance-based and self-reported measures of health literacy. They found no differences in outcomes between the two measures, though the data were quite sparse.

It would be useful to be able to measure health literacy and numeracy using self-reported rather than performance-based measures, as self-reporting is generally easier to administer—the instruments can be filled out by patients in the waiting room rather than requiring someone to administer them. What remains unclear is whether the underlying theoretical constructs are equivalent between performance-based and self-reported literacy measures.³ Performance-based measures may measure literacy more directly, while self-reports may be influenced by factors that affect patients' perceived ability (such as confidence and other social constructs). Whether this difference affects health outcomes is an impor-

tant question that may not be adequately answered by this review, given the lack of available data.

Unfortunately, there may be no single outcome that could be abstracted from all studies examining the impact of health literacy on outcomes, as there are methods available in meta-analysis that allow indirect comparison of outcomes. These network meta-analytic methods are still in their infancy, but it would be interesting to apply them to this type of data: studies looking at the impact of literacy on outcomes. Other fundamental questions that have yet to be answered include how clinicians could use this information in patient management and what types of interventions could be performed to improve outcomes among patients with low literacy. Approaches to managing patients with low literacy that have a demonstrable impact on patient outcomes are needed.

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REFERENCES

1. Kiechle ES, Bailey SC, Hedlund LA, Viera AJ, Sheridan SL. Different Measures, Different Outcomes? A Systematic Review of Performance-based versus Self-reported Measures of Health Literacy and Numeracy. doi: 10.1007/s11606-015-3288-4
2. Berkman ND, Sheridan SL, Donahue KE, Halpern DJ, Viera A, Crotty K, et al. Health literacy interventions and outcomes: an updated systematic review. Evidence Report/Technology Assessment. United States: Agency for Healthcare Research and Quality; 2011 Mar. Report No.: 199.
3. Jordan JE, Osborne RH, Buchbinder R. Critical appraisal of health literacy indices revealed variable underlying constructs, narrow content and psychometric weaknesses. J Clin Epidemiol. 2011;64(4):366–79.