

# The Encyclopedia of Elder Care

## The Comprehensive Resource on Geriatric Health and Social Care

### Fourth Edition

Elizabeth A. Capezuti, PhD, RN, FAAN

Michael L. Malone, MD

Daniel S. Gardner, PhD, LCSW

Ariba Khan, MD, MPH

Steven L. Baumann, PhD, GNP-BC, PMHNP-BC

*Editors*

Copyright © 2018 Springer Publishing Company, LLC

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Springer Publishing Company, LLC, or authorization through payment of the appropriate fees to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400, fax 978-646-8600, [info@copyright.com](mailto:info@copyright.com) or on the Web at [www.copyright.com](http://www.copyright.com).

Springer Publishing Company, LLC  
11 West 42nd Street  
New York, NY 10036  
[www.springerpub.com](http://www.springerpub.com)

*Acquisitions Editor:* Joseph Morita  
*Compositor:* Newgen KnowledgeWorks

*ISBN:* 978-0-8261-4052-4  
*ebook ISBN:* 978-0-8261-4053-1

17 18 19 20 21 / 5 4 3 2 1

The author and the publisher of this Work have made every effort to use sources believed to be reliable to provide information that is accurate and compatible with the standards generally accepted at the time of publication. Because medical science is continually advancing, our knowledge base continues to expand. Therefore, as new information becomes available, changes in procedures become necessary. We recommend that the reader always consult current research and specific institutional policies before performing any clinical procedure. The author and publisher shall not be liable for any special, consequential, or exemplary damages resulting, in whole or in part, from the readers' use of, or reliance on, the information contained in this book. The publisher has no responsibility for the persistence or accuracy of URLs for external or third-party Internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

#### **Library of Congress Cataloging-in-Publication Data**

Names: Capezuti, Liz, editor. | Malone, Michael L., editor. | Gardner, Daniel S., editor. | Khan, Ariba, editor. | Baumann, Steven L. (Professor of nursing), editor.

Title: The encyclopedia of elder care : the comprehensive resource on geriatric health and social care /

Elizabeth A. Capezuti, Michael L. Malone, Daniel S. Gardner, Ariba Khan, Steven L. Baumann, editors.

Description: Fourth edition. | New York, NY : Springer Publishing Company, LLC, [2018] | Includes bibliographical references and index.

Identifiers: LCCN 2017039903 | ISBN 9780826140524 (paper back)

Subjects: | MESH: Health Services for the Aged | Geriatrics | Geriatric Nursing | Encyclopedias

Classification: LCC RC954 | NLM WT 13 | DDC 362.19897003—dc23

LC record available at <https://lccn.loc.gov/2017039903>

Contact us to receive discount rates on bulk purchases.

We can also customize our books to meet your needs.

For more information please contact: [sales@springerpub.com](mailto:sales@springerpub.com)

Printed in the United States of America by Publishers' Graphics.

# MENTAL CAPACITY ASSESSMENT

Mental capacity refers to the ability to make a reasoned decision, such as for general self-care, medical treatment, or the drafting and execution of a legal document. A person is assumed to have adequate capacity until there is enough compelling evidence to the contrary that warrants further investigation ([Berghmans, 2008](#)). Questions about mental capacity and its assessment are increasing as the aging population grows.

The most important consideration in the assessment of an elder's mental capacity is the person's observable behavior, or "clinical findings." It is a mistake to rely primarily, or solely, on test results to make a determination of mental capacity. All cognitive tests require comparison to the elder's observable behavior to ensure proper interpretation. With this understanding, mental capacity instruments may be divided into four categories: (a) behavior-based assessments, (b) screening tests, (c) semistructured interviews, and (d) neuropsychological test batteries. The last category refers to combinations of statistically standardized tests for assessing specific cognitive functions. Specialized training is necessary to properly administer, score, and interpret the results. This chapter reviews some of the assessment tools that may be used by a variety of medical and nonmedical personnel and do not require specialized training. These are not meant to represent all possible tests, merely a few of the more commonly utilized ones.

## BEHAVIOR-BASED ASSESSMENTS

Most behavior-based assessments may be used by nonmedical professionals to identify potentially problematic behaviors in elderly clients and serve as gateway assessments for determining whether more detailed evaluation is necessary by a medical professional. There are many variations, but two common assessments are the PARADISE-2 protocol and the Lichtenberg Financial Decision Screening Scale.

### PARADISE-2 PROTOCOL

The PARADISE-2 protocol was originally created for attorneys and other nonmedical professionals and uses six categories to evaluate mental capacity through behavioral observations: cognition, emotion, language, consistency with prior acts and beliefs, mitigating factors such as medical considerations, and personal and interpersonal disruptions. The administrator reviews specific behaviors and functions to identify whether any of these categories or subcategories are potentially impaired in the elder ([Blum, 2000](#)).

### Lichtenberg Financial Decision Screening Scale

The Lichtenberg Financial Decision Screening Scale (LFDSS) is a brief 10-item screening tool for determining the elder's understanding, appreciation, reasoning, choice, and susceptibility to undue influence by using a specific real-life financial decision to determine whether the elder is impaired. Its primary use is to assess financial decision-making capacity. The scale was created for adult protective services workers and other nonmedical professionals as an alternative to the Lichtenberg Financial Decision Making Rating Scale (LFDMS), a 77-item tool for mental health professionals that require a level of training and an administration and scoring time commitment impractical for use by nonmedical professionals ([Lichtenberg et al., 2016](#)).

## SCREENING TESTS

These short, standardized tests may be administered quickly and provide rapid, rough assessments across multiple cognitive domains, including executive functioning, to assess whether further evaluation may be needed. Although cognitive deficits are known to be strongly correlated with decision-making capacity, these tests do not directly assess decision-making capacity or executive functioning ([Palmer & Harmell, 2016](#)). In one study, nearly 25% of partners with dementia maintained decisional capacity, the ability to make a decision, even in the absence of executive capacity, the ability to execute the decision ([Boyle, 2013](#)). In addition, tests of executive function are limited due to lack of an operational or conceptual definition and poor ecological validity ([Barkley, 2012](#)).

### Mini-Mental State Examination

The Mini-Mental State Examination (MMSE) is a 30-point questionnaire that includes questions about orientation, registration and recall, language, attention, and calculation. According to the creator, the MMSE does not discriminate well between people who have intact versus impaired executive functions ([Holzer, Gansier, Moczynski, & Folstein, 1997](#)). The test is arguably the most widely used cognitive screening method and has multiple culturally and linguistically adapted versions. A standardized MMSE is available and includes preadministration guidelines to increase reliability ([Molloy, Alemayehu, & Roberts, 1991](#).) MMSE scores are not directly correlated with decision-making capacity and must be added to the clinical history. Elders deemed impaired by the MMSE have demonstrated intact decision-making capacity, and conversely, those evaluated to be cognitively intact have exhibited impaired capacity ([Holzer et al., 1997](#); [Whitlatch, 2013](#)). In addition, there is an inherent bias for cortical neurodegenerative disease, so it may not be as sensitive for other causes of cognitive impairment ([Royall, Cordes, & Polk, 1998](#)). Results have also been shown to be affected by educational, racial, and language disparity ([Crowe, Clay, Sawyer, Crowther, & Allman, 2008](#); [Ramirez, Teresi, Holmes, Gurland, & Lantigua, 2006](#)).

## Executive Interview

The Executive Interview (EXIT25) is a 25-item brief, bedside standardized clinical interview for assessing executive function ([Royall, Mahurin, & Gray, 1992](#)). The test has exhibited sensitivity to differences in etiology and severity of neurocognitive disorders, including early cognitive impairment, HIV dementia, and bipolar disorder ([Berghuis, Uldall, & Lalonde, 1999](#); [Gildengers et al., 2004](#); [Royall et al., 1992](#)). Compared with other assessment tools, EXIT25 may exhibit increased sensitivity and specificity for impaired decision-making capacity ([Holtzer et al., 1997](#)). Given arguments that the test has a lengthy administrative time and poor face and content validity of some items, multiple studies maintained or improved internal consistency and validity while reducing to 14, 9, or 8 items ([Jahn, Dressel, Gavett, & O'Bryant, 2015](#); [Larson & Heinemann, 2010](#); [Mujic, Lebovich, Von Heisin, Clifford, & Prince, 2014](#)).

## Clock Drawing Executive Task

The Clock Drawing Executive Task (CLOX1/ CLOX2) is a rapid, widely used clock-drawing test for evaluating working memory, executive function, receptive language, and visuospatial and visuoperceptive skills. In CLOX1, a novel clock is drawn to evaluate executive functioning, and in CLOX2, a clock is copied to determine visuospatial abilities ([Shon et al., 2013](#)). Each drawing is evaluated by its elements, size, form, position, and distractions. The test is well validated in multiple culturally and linguistically diverse populations ([Royall et al., 2003](#); [Yap, Ng, Yeo, & Henderson, 2007](#)). The test may be more sensitive to executive dysfunction than the MMSE in subclinical and reversible forms of cognitive impairment ([Royall et al., 1998](#)). However, in practical terms, the degree of impairment required may be quite significant and correspond with a normal elementary-age level of functioning ([Cohen, Ricci, Kibby, & Edmonds, 2000](#)). Results may also be limited by racial and reading abilities ([Crowe et al., 2008](#)).

## SEMISTRUCTURED INTERVIEWS

More formalized than screening tools, semistructured interviews consist of standardized vignettes or clinical interview based on four elements of decisional capacity commonly found in U.S. state statutes: the ability to (a) understand alternatives, (b) appreciate the consequences of a choice, (c) provide reasoning for the choice, and (d) express a choice ([Grisso & Appelbaum, 1998](#)). It has been shown with greater standardization; there is higher validity, inter-rater reliability, and test-retest reliability ([Anastasi & Urbina, 1997](#)).

## Capacity to Consent to Treat Instrument

The Capacity to Consent to Treat Instrument (CCTI) is a widely utilized semistructured interview consisting of two hypothetical vignettes for determining decisional capacity for treatment-related decisions. The test is well validated and utilized on diverse populations. Its creators published age-adjusted and age-independent normative data to improve results. On the other hand, some elders may demonstrate rational decision-making abilities with the clear, simple standardized vignettes yet exhibit impairment with complex, multistep decisions. In addition, standardized vignettes ignore situationally dependent factors, such as an alternative that is inherently incompatible with the elder's values ([Palmer & Harmell, 2016](#)).

## MacArthur Competence Assessment Tools

The MacArthur Competence Assessment Tools (MacCAT) is one of the original, and most widely utilized, semistructured interviews dedicated to the assessment of decision-making ability and often described as the gold standard for capacity assessment. There are now various theme-specific versions to allow for greater contextual assessment, such as consenting to a specific treatment or research protocol, a Spanish version, and a manual to guide its use ([Palmer & Harmell, 2016](#)). The test has shown high validity and reliability on diverse populations, and one study found that in conjunction with a clinical interview, the MacCAT can produce highly reliable capacity judgments ([Cairns et al., 2005](#)). One drawback of the MacCAT is that it does not produce a global rating of competency, but rather provides information about each of the four criteria mentioned ([Breden & Vollmann, 2004](#)).

## CONCLUSION

Assessment of decision-making capacity is an important component of proper elder care. In fact, ensuring the elder is capable of informed decision making is one of the ethical foundations of care. The aging of society, increasingly sophisticated and sometimes dangerous medical treatment alternatives, increasingly complex research proposals involving human subjects, and increasing rates of elder financial exploitation make it clear that mental capacity assessment is a critical skill for all care providers. Even the most skilled professionals can struggle to provide a reliable mental capacity determination without a structured assessment. Yet, even with the most standardized assessment method, results are often limited by the elder's emotional state, values, preferences, and culture. Most important, capacity instruments can only guide capacity assessment and must be balanced with behavioral observations, the nature of the decision, and intra-individual factors ([Palmer & Harmell, 2016](#)). Finally, decision-making capacity can change over time based on cognitive fluctuations or decision complexity ([Trachsel, Hermann, & Biller-Andorno, 2015](#)). Elders previously deemed

to have intact or impaired decision-making capacity still require decisional capacity assessment if enough compelling evidence of impairment is present.

*R. Bennett Blum and Jill Spice*

- Anastasi, A., & Urbina, S. (1997). *Psychological testing* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Barkley R. A. (2012). *Executive functions—What they are, how they work, and why they evolved*. New York, NY: Guilford.
- Berghmans, R. L. (2008). Informed consent and decision-making capacity in neuromodulation: Ethical considerations. *Neuromodulation: Journal of the International Neuromodulation Society*, 11(3), 156–162.
- Berghuis, J. P., Uldall, K. K., & Lalonde, R. (1999). Validity of two scales in identifying HIV-associated dementia. *Journal of Acquired Immune Deficiency Syndromes*, 12(2), 134–140.
- Blum, B. (2000). Forensic issues. In B. J. Sadock & V. A. Sadock (Eds.), *Kaplan and Sadock's comprehensive textbook of psychiatry* (8th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Boyle, G. (2013). “She’s usually quicker than the calculator:” Financial management and decision-making in couples living with dementia. *Health & Social Care in the Community*, 21(5), 554–562.
- Breden, T. M., & Vollmann, J. (2004). The cognitive based approach of capacity assessment in psychiatry: A philosophical critique of the MacCAT-T. *Health Care Analysis*, 12(4), 273–283.
- Cairns, R., Maddock, C., Buchanan, A., David, A. S., Hayward, P., Richardson, G., . . . Hotopf, M. (2005). Reliability of mental capacity assessments in psychiatry in-persons. *British Journal of Psychiatry*, 187(4), 372–378.
- Cohen, M. J., Ricci, C. A., Kibby, M. Y., & Edmonds, J. E. (2000). Developmental progression of clock face drawing in children. *Child Neuropsychology*, 6, 64–76.
- Crowe, M., Clay, O. J., Sawyer, P., Crowther, M. R., & Allman, R. M. (2008). Education and reading ability in relation to differences in cognitive screening between African American and Caucasian older adults. *International Journal of Geriatric Psychiatry*, 23(2), 222–223.
- Gildengers, A. G., Butters, M. A., Seligman, K., McShea, M., Miller, M. D., Mulsant, B. H., . . . Reynolds, C. F. (2004). Cognitive functioning in late-life bipolar disorder. *American Journal of Psychiatry*, 161(4), 736–738.
- Grisso, T., & Appelbaum, P. S. (1998). *Assessing competence to consent to treatment: A guide for physicians and other health professionals*. New York, NY: Oxford University Press.
- Holzer, J. C., Gansier, D. A., Moczynski, N. P., & Folstein, M. F. (1997). Cognitive functions in the informed consent evaluation process: A pilot study. *Journal of the American Academy of Psychiatry and the Law*, 25(4), 531–540.
- Jahn, D. R., Dressel, J. A., Gavett, B. E., & O’Bryant, S. E. (2015). An item response theory analysis of the Executive Interview and development of the EXIT8: A Project FRONTIER Study. *Journal of Clinical and Experimental Neuropsychology*, 37(3), 229–242.
- Larson, E. B., & Heinemann, A. W. (2010). Rasch analysis of the Executive Interview (The EXIT-25) and introduction of an abridged version (The Quick EXIT). *Archives of Physical Medicine and Rehabilitation*, 91(3), 389–394.
- Lichtenberg, P. A., Ficker, L., Rahman-Filipiak, A., Tatro, R., Farrell, C., Speir, J. J., . . . Jackman, J. D. (2016). The Lichtenberg Financial Decision Screening Scale (LFDSS): A new tool for assessing financial decision making and preventing financial exploitation. *Journal of Elder Abuse & Neglect*, 28(3), 134–151.
- Molloy, D. W., Alemayehu, E., & Roberts, R. (1991). Reliability of a Standardized Mini-Mental State Examination compared with the traditional Mini-Mental State Examination. *American Journal of Psychiatry*, 148(1), 102–105.
- Mujic, F., Lebovich, E., Von Heisin, M., Clifford, D., & Prince, M. J. (2014). The Executive Interview (EXIT25) as a tool for assessing executive functioning in older medical and surgical inpatients referred to a psychiatry service: feasibility of creating a brief version. *International Psychogeriatrics*, 26(6), 935–941.
- Palmer, B. W., & Harmell, A. L. (2016). Assessment of healthcare decision-making capacity. *Archives of Clinical Neuropsychology*, 31(6), 530–540.

- Ramirez, M., Teresi, J. A., Holmes, D., Gurland, B., & Lantigua, R. (2006). Differential item functioning (DIF) and the Mini-Mental State Examination (MMSE): Overview, sample, and issues of translation. *Medical Care*, 44(11, Suppl. 3), S95–S106.
- Royall, D. R., Cordes, J. A., & Polk, M. J. (1998). CLOX: An executive clock drawing task. *Journal of Neurology, Neurosurgery, and Psychiatry*, 64(5), 588–594.
- Royall, D. R., Espino, D. V., Polk, M. J., Verdeja, R., Vale, S., Gonzales, H., . . . Markides, K. P. (2003). Validation of a Spanish translation of the CLOX for use in Hispanic samples: the Hispanic EPESE study. *International Journal of Geriatric Psychiatry*, 18(2), 135–141.
- Royall, D. R., Mahurin, R. K., & Gray, K. F. (1992). Bedside assessment of executive cognitive impairment: the executive interview. *Journal of the American Geriatrics Society*, 40(12), 1221–1226.
- Shon, J. M., Lee, D. Y., Seo, E. H., Sohn, B. K., Kim, J. W., Park, S. Y., . . . Woo, J. I. (2013). Functional neuroanatomical correlates of the executive clock drawing task (CLOX) performance in Alzheimer's disease: A FDG-PET study. *Neuroscience*, 246(29), 271–280.
- Trachsel, M., Hermann, H., & Biller-Andorno, N. (2015). Cognitive fluctuations as a challenge for the assessment of decision-making capacity in patients with dementia. *American Journal of Alzheimer's Disease and Other Dementias*, 30(4), 360–363.
- Whitlatch, C. J. (2013). Person-centered care in the early stages of dementia: Honoring individuals and their choices. *Generations*, 37(3), 30–36.
- Yap, P. L., Ng, T. P., Yeo, D., & Henderson, L. (2007). Diagnostic performance of clock drawing test by CLOX in an Asian Chinese population. *Dementia and Geriatric Cognitive Disorders*, 24(3), 193–200.

#### Web Resources

- American Bar Association Commission on Law and Aging: Resources for lawyers, judges, and mental health professionals regarding capacity assessment: [http://www.americanbar.org/groups/law\\_aging/resources/capacity\\_assessment.html](http://www.americanbar.org/groups/law_aging/resources/capacity_assessment.html)
- Mini-Mental State Examination: <http://www.ncbi.nlm.nih.gov/pubmed/1202204> (Note that the MMSE is protected under U.S. copyright and should be purchased for use.)
- National Center on Elder Abuse: <https://ncea.acl.gov>
- National Centre for the Protection of Older People: [http://ncpop.ie/educationandtraining\\_onlinemodules](http://ncpop.ie/educationandtraining_onlinemodules)
- National Committee for the Protection of Elder Abuse: <http://www.preventelderabuse.org>
- PARADISE-2 protocol: <http://www.bennettblummd.com/id15.html>