Evidence-Based Practice Guideline

Depression Detection in Older Adults With Dementia

ABSTRACT

Depression and dementia are the two most common psychiatric syndromes in the older adult population. Depression in older adults with and without dementia often goes unrecognized and untreated. The current guideline recommends a three-step procedure that can be used across health care settings to screen for the presence of depressive symptoms. Implementation of the evidence-based guideline requires administration of the Mini-Mental State Examination and either the Geriatric Depression Scale Short Form or Cornell Scale for Depression in Dementia, depending on level of cognitive functioning. The algorithm provided is designed to be used by nurses, physicians, and social workers for the purpose of depression screening in older adults with dementia. Detection of depression in individuals with dementia is hindered by a lack of a validated, brief screening tool. More research is needed on the use of such screenings among older adults with cognitive impairment. [*Journal of Gerontological Nursing, 41*(11), 15-21.]

It is anticipated that the incidence and prevalence of Alzheimer's disease and other forms of dementia will increase (Alzheimer's Association, 2012) as our nation ages. It is therefore essential that depression and dementia, the two most common psychiatric syndromes in the older adult population, are routinely assessed. However, depression in older adults with and without dementia often goes undetected and untreated (Charney et al., 2003; Jeon et al., 2013, 2015; Kales, Chen, Blow, Welsh, & Mellow, 2005; Snowdon & Fleming, 2008). Estimates of the prevalence of depression in older adults with dementia vary greatly (Alexopoulos & Abrams, 1991; Debruyne et al., 2009; Lyketsos & Olin, 2002; Wragg & Jeste, 1989). This variation is attributed to differences in sampling, diagnostic criteria used to identify depression, and the way depression is assessed (Alexopoulos & Abrams, 1991; McCabe et al., 2006).

Despite expert recommendations (Alexopoulos et al., 2001) and increased availability of a range of depression treatment options (e.g., medication, psychotherapy, combination therapy, electroconvulsive therapy), depression remains a significant public health problem for older adults (HealthyPeople.gov, 2015).

Detection is the first essential step to improving depression care for patients with dementia. However, detection of depression in individuals with dementia is complicated by numerous barriers at the patient, clinician, and system level. These barriers include the inability of many individuals with Alzheimer's disease and other forms of dementia to provide reliable reporting of emotional symptoms. Severely impaired patients are unable to express their needs or symptoms to their caregivers, which makes detection of depression and other conditions difficult. The health system and clinicians contribute additional factors that hinder the detection of depressive symptoms (**Figure 1**).

Ellen Leslie Brown, EdD, MS, RN, FAAN; Patrick J. Raue, PhD; and Karen Halpert, MD
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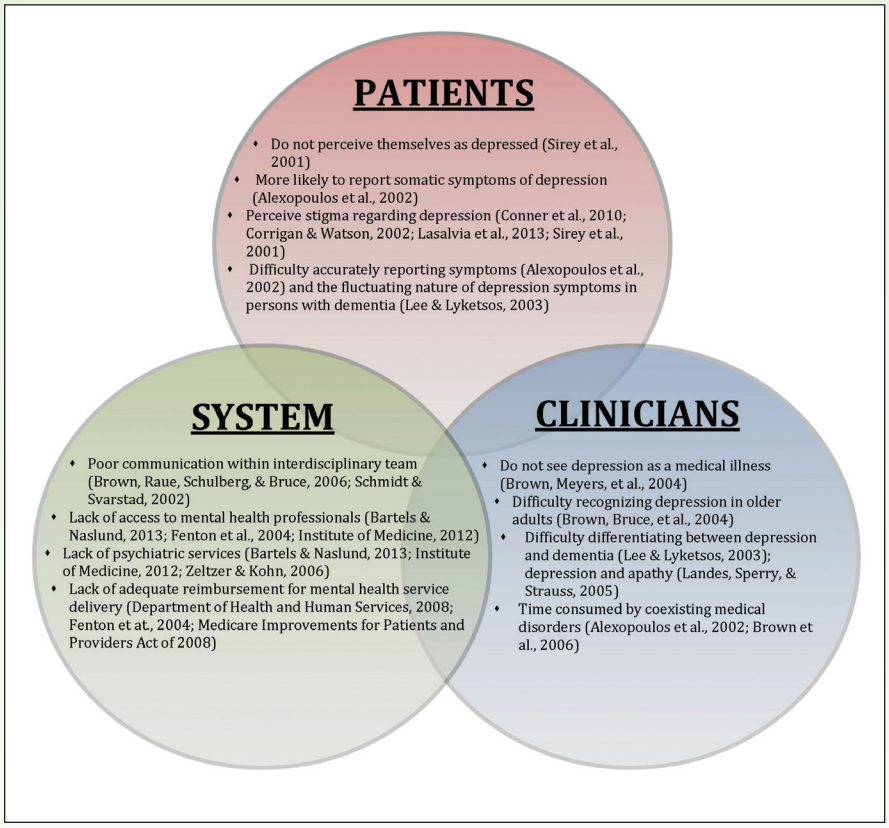


Figure 1. Diagram of barriers to detection of depression in older adults with dementia.

DEPRESSION

Major depression is a syndrome characterized by a number of signs and symptoms. In a study conducted in a nursing home, 25% of patients screened positive for major depression (Gruber-Baldini et al., 2005). This rate is close to that of major depression reported for individuals with Alzheimer's disease (i.e., 15% to 20% [Alexopoulos & Abrams, 1991], 22% [Lyketsos et al., 1997], and 10% to 20% [Wragg & Jeste, 1989]). According to the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013), at least five symptoms must exist that have been present during the same 2-week period and represent a change from previous functioning for a diagnosis of major depression to be made. At least one of the symptoms must be depressed mood or anhedonia.

In recognition of the fact that many patients with dementia experience clinically significant depression that may not meet full criteria for major depression, Olin et al. (2002b) proposed new provisional diagnostic criteria for depression of Alzheimer's disease. Diagnostic criteria include fewer symptoms of depression (three versus five symptoms required for major depression). In addition, symptoms only need to be present for a short period of time given the fluctuating nature of depression in individuals with dementia (Abrams & Alexopoulos, 1994; Jost & Grossberg, 1996). However, research studies are still needed to validate these new depression criteria (Charney et al., 2003; Tappen & Williams, 2008).

Self-report scales are only appropriate for individuals with mild to moderate cognitive impairment, and more time-intensive and clinically sophisticated observer-rated approaches are required for individuals with severe cognitive impairment (American Geriatrics Society [AGS] & American Association for Geriatric Psychiatry [AAGP], 2003; Snowden, Sato, & Roy-Byrne, 2003). Additional research is needed to develop and validate a depression screening instrument that will accurately detect depression symptoms in dementia across the cognitive spectrum (Greenberg et al., 2004).

The current article is a condensed version of the revised guideline, *Detection of Depression in Older Adults with Dementia* (Brown, Raue, & Halpert, 2014). Readers are advised to obtain the full guideline, which includes copies of the assessment tools used in the current article along with process and outcome measures. The guideline may be purchased from the Hartford/Csomay Center for Geriatric Nursing Excellence (access http://www.iowanursingguidelines.com/category-s/125.htm).

PURPOSE OF THE GUIDELINE

The purpose of this evidence-based guideline is to improve detection of depression in older adults with dementia. This guideline may be used by physicians, advanced practice nurses (APNs), RNs, licensed practical nurses (LPNs), and social workers across a variety of settings, including inpatient and outpatient, long-term care, assisted living, and home care. This guideline was developed from an exhaustive literature review and synthesis of current evidence on detection of depression in older adults with dementia. Research and other evidence, such as guidelines and standards from professional organizations, were critiqued, analyzed, and used as supporting evidence.

SYSTEMATIC DEPRESSION ASSESSMENT

Risk factors for depression are listed in the **Table**. Any individual older than 60 should be screened for depression periodically. The AGS recommends depression screening 2 to 4 weeks after admission to a nursing home and then repeated screen-

ing at least every 6 months after admission (AGS & AAGP, 2003). In all nursing homes, patients should be screened at least every 6 months (AGS & AAGP, 2003; Snowden et al., 2003). The estimated 1.5 million nurses (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, & National Center for Health Statistics, 2013) working across long-term care settings are positioned well to improve depression detection in individuals across the cognitive spectrum.

The three-step depression screening process can be implemented by an individual health care provider or by using a team approach. The authors suggest first that a series of five patients be assessed by the user with the supervision of a mental health expert. Organizational support for training and implementation of the screening process are required. Implementation time will vary.

POPULATIONS AND SETTINGS

The nursing home and home health care service sectors are both currently federally mandated to conduct periodic depression screening. Regulatory requirements in the nursing home require the completion of the Minimum Data Set (MDS) Version 3.0, a core set of screening and functional status elements including common deficiencies and coding categories. The MDS forms the foundation of comprehensive assessment for all patients of long-term care facilities certified to participate in Medicare or Medicaid (Centers for Medicare & Medicaid Services [CMS], 2009, 2012a, 2015a). In home health care, regulatory requirements require the completion of the Outcome Assessment and Information Set (CMS, 2012b, 2015b), a set of data that evaluates a variety of patient domains and documents outcomes in home health care.

DESCRIPTION OF THE PRACTICE

The assessment is a three-step procedure that can be used across health care settings to screen for the presence of depressive symptoms. This is a screening guideline, not a diagnostic process. Positive screens should be followed with a diagnostic evaluation by a skilled health care provider. Implementation of the evidence-based guideline requires:

Step 1—Administration of the Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975);

Step 2—Administration of either the Geriatric Depression Scale Short Form (SGDS; Sheikh & Yesavage, 1986) or the Cornell Scale for Depression in Dementia (CSDD; Alexopoulos, Abrams, Young, & Shamoian, 1988) depending on level of cognitive functioning; and

Step 3—Further evaluation or mental health referral for positive screens.

To further describe the screening process for detection of depression in individuals with dementia, "The Algorithm for Detection of Depression in Older Adults With Dementia Population" was developed, which is illustrated in **Figure 2**. The Algorithm is designed to be used by nurses, physicians, and social workers.

In addition, the following screening tools are used for the detection of depression, as mentioned above.

TABLE

RISK FACTORS FOR DEPRESSION

Prior episode of major depression
Severe psychosocial events or stressors (e.g., death of a loved one, marital separation, divorce)
Chronic medical conditions
Substance dependence issues
Family history of depressive disorders
Female gender
Loss of independent functioning (Rovner & Ganguli, 1998)
Acutely disabling conditions (e.g., stroke, myocardial infarction) (Alexopoulos et al., 1997; Lespérance, Frasure-Smith, & Talajic, 1996)
Physical disability (Bruce, Seeman, Merrill, & Blazer, 1994).

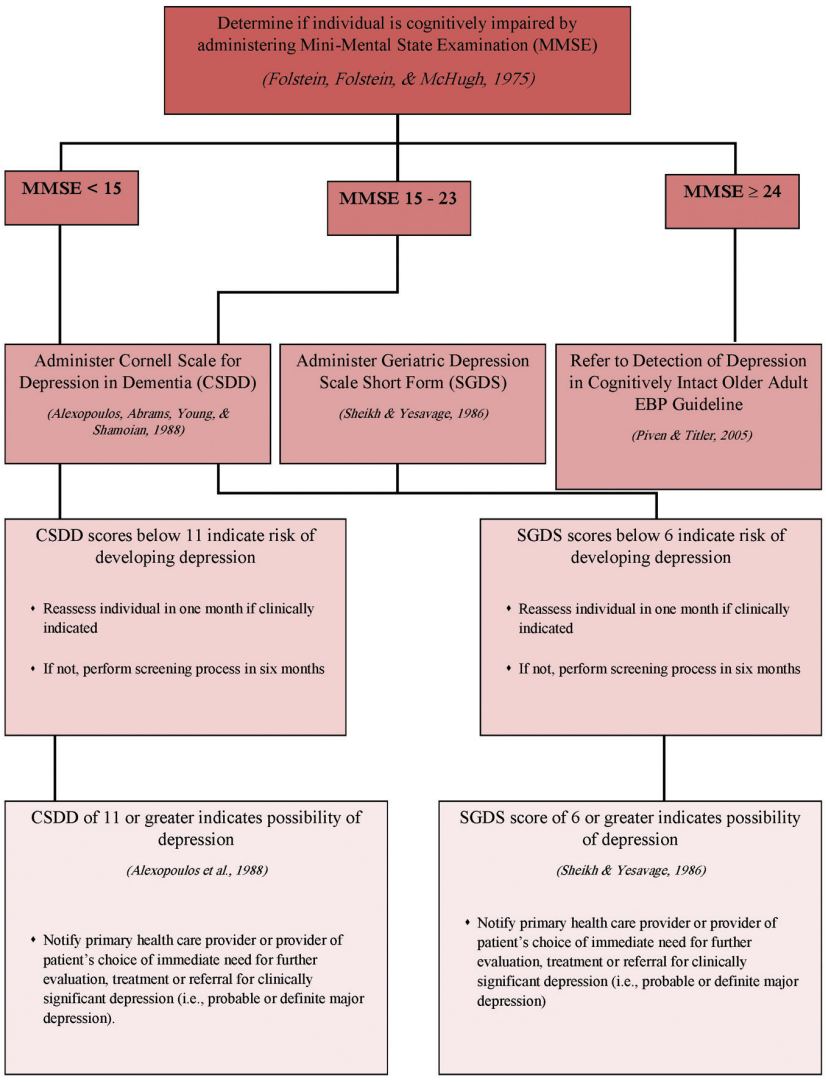
The Mini-Mental State Examination

The MMSE* (Folstein et al., 1975) is a widely used method for assessing the cognitive functioning of older adults. The MMSE contains items that assess orientation, attention and calculation, immediate and short-term recall, and language and the ability to follow simple written and verbal commands. It yields a maximum score of 30 and a minimum score of 0. A cutoff score ≤23 for the presence of dementia has demonstrated high sensitivity and specificity (Folstein et al., 1975).

Geriatric Depression Scale

The Geriatric Depression Scale (GDS), available in many languages, is a depression screening tool that takes approximately 5 minutes to administer and has been validated for community-dwelling, hospitalized, and institutionalized older adults (Koenig, Meador, Cohen, & Blazer, 1988; Lesher & Berryhill, 1994; Sheikh & Yesavage, 1986). The SGDS is a 15-item *yes/no* screening tool for depression in older adults that does not focus on somatic symptoms of depression, which may be the result of physical illness in the elderly. This

**The copyright of the MMSE is owned by Psychological Assessment Resources and payment is required when used. There are options for clinicians who cannot pay (Newman, 2015).*



Referral of Positive Screens

- For SGDS scores ≥6, alert and notify primary health care provider or provider of patient's choice of immediate need for further evaluation, treatment, or referral for clinically significant depression (i.e., probable or definite major depression).
- For CSDD scores ≥11, alert and notify primary health care provider or provider of patient's choice of immediate need for further evaluation, treatment, or referral for clinically significant depression (i.e., probable or definite major depression) (Alexopoulos et al., 1988).

Procedure for Negative Screens

- For SGDS scores <6, reassess individual in 1 month if clinically indicated. If not, perform screening process in 6 months.
- For CSDD scores <11, reassess individual in 1 month if clinically indicated. If not, perform screening process in 6 months.

Figure 2. Algorithm for detection of depression in older adults with dementia population.

scale discriminates between normal, mildly depressed, and severely depressed individuals. It has been validated in community-dwelling, hospitalized, and institutionalized older adults (Koenig et al., 1988; Lesher & Berryhill, 1994; Sheikh & Yesavage, 1986). The SGDS, at a threshold score of 6, has a high correlation with the longer form GDS ($r = 0.85$) (Sheikh & Yesavage, 1986). This cutoff has been shown to have high specificity and sensitivity in the mild and moderately cognitively impaired population (McCabe et al., 2006). The tool retains validity for MMSE scores ≥15 (Burke, Houston, Boust, & Roccaforte, 1989; Canuto et al., 2009; Feher, Larrabee, & Crook, 1992; Kafonek et al., 1989; McCabe et al., 2006; McGivney, Mulvihill, & Taylor, 1994; Müller-Thomsen, Arlt, Mann, Mass, & Ganzer, 2005). The GDS can be administered as a self-report or by oral interviews (Koenig et al., 1988; McGivney et al., 1994).

Cornell Scale for Depression in Dementia

The CSDD is a depression severity tool that can also be used for screening. The tool has been validated to rate depressive symptomology over the entire range of cognitive impairment (Alexopoulos et al., 1988). The CSDD has been translated and used in several countries and has been shown to be a reliable and valid measure (Barca, Engedal, & Selbaek, 2010; Lin & Wang, 2008). Although the CSDD has been validated as a severity instrument (Alexopoulos et al., 1988), the AGS/AAGP (2003) Consensus Statement also recommended its use as a screening instrument for moderately to severely cognitively impaired individuals (Snowden et al., 2003). Because some patients provide unreliable self-reports, the CSDD combines use of both an informant and patient interview. A cutoff score of ≥11 has been identified as indicating probable or definite major depression (Alexopoulos, 2002).

Despite strong evidence of reliability and validity of the CSDD by trained researchers or specialist clinicians, studies examining its administration in routine care have found lower diagnostic accuracy (Jeon et al., 2015; Watson, Zimmerman, Co-

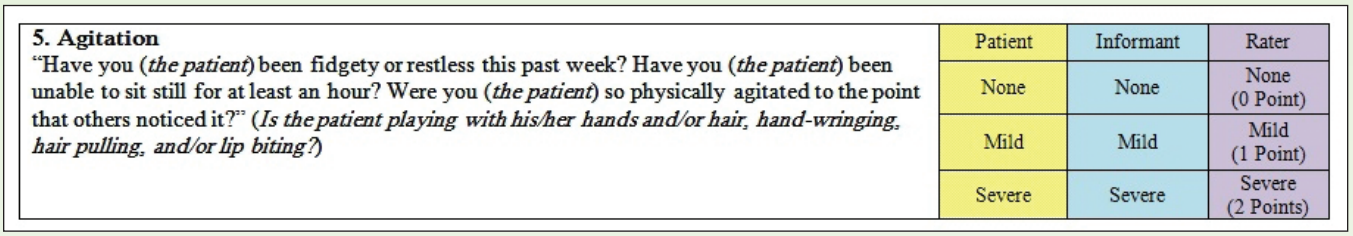


Figure 3. Agitation item of the Cornell Scale for Depression in Dementia.

hen, & Dominik, 2009). These findings highlight the importance of using well-trained staff and multiple sources of information, including reliable informants.

A concern identified about using the CSDD in practice is the time required to train staff and administer the instrument. To help facilitate training and administration, a unique format is provided in the guideline. **Figure 3** displays one of the 19 CSDD items, in addition to a set of questions to facilitate administration. All 19 CSDD items, description of administration, interpretation, and documentation are included in the full complete version of the evidence-based guideline (access http://www.iowanursingguidelines.com/category-s/125.htm) on which the current article is based.

OUTCOME INDICATORS

A number of outcome indicators are expected to change or improve following consistent use of the guideline. The major outcome indicators that should be monitored over time include:

- increased percentage of patients receiving a mental health referral for depression (Callahan et al., 2006);
- increased recognition of depression symptoms in patients with dementia; and
- improved detection, treatment, and course of depression in normal practice (Eisses et al., 2005).

SUMMARY AND CONCLUSION

Detection of depression in individuals with dementia is hindered by lack of a validated, brief screening tool. More research is needed on the use of such screens among older adults with cognitive impairment. Self-report scales are only appropriate for individuals with mild to moderate cognitive impairment, whereas more time-intensive and clinically sophisticated observer-rated approaches are required for severe cognitive impairment (AGS & AAGP, 2003; Snowden et al., 2003). Additional research is needed to develop and validate a depression screening instrument that will accurately detect depression symptoms in dementia across the cognitive spectrum (Greenberg et al., 2004).

REFERENCES

Abrams, R.C., & Alexopoulos, G.S. (1994). Assessment of depression in dementia. *Alzheimer Disease and Associated Disorders,* 8(Suppl. 1), S227-S229.

Alexopoulos, G.S. (2002). The Cornell scale for depression in dementia: Administration and scoring guidelines. Unpublished manuscript, Cornell Institute of Geriatric Psychiatry, Weill Medical College of Cornell University.

Alexopoulos, G.S., & Abrams, R.C. (1991). Depression in Alzheimer's disease. *Psychiatric Clinics of North America, 14,* 327-340.

Alexopoulos, G.S., Abrams, R.C., Young, R.C., & Shamoian, C.A. (1988). Cornell Scale for Depression in Dementia. *Biological Psychiatry, 23,* 271-284.

Alexopoulos, G.S., Borson, S., Cuthbert, B.N., Devanand, D.P., Mulsant, B.H., Olin, J.T., & Oslin, D.W. (2002). Assessment of late life depression. *Biological Psychiatry, 52,* 164-174.

Alexopoulos, G.S., Katz, I.R., Reynolds, C.F., III, Carpenter, D., Docherty, J.P., & Ross, R.W. (2001). Pharmacotherapy of depression in older patients: A summary of the expert consensus guidelines. *Journal of Psychiatric Practice, 7,* 361-376.

Alexopoulos, G.S., Meyers, B.S., Young, R.C., Campbell, S., Silbersweig, D., & Charlson M. (1997). 'Vascular depression' hypothesis. *Archives of General Psychiatry, 54,* 915-922.

Alzheimer's Association. (2012). 2012 Alzheimer's disease facts and figures. *Alzheimer's and Dementia: The Journal of the Alzheimer's Association, 8,* 131-168. doi:10.1016/j.jalz.2012.02.001

American Geriatrics Society, & American Association for Geriatric Psychiatry. (2003). Consensus statement on improving the quality of mental health care in U.S. nursing homes: Management of depression and behavioral symptoms associated with dementia. *Journal of the American Geriatrics Society, 51,* 1287-1298.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

Barca, M.L., Engedal, K., & Selbaek, G. (2010). A reliability and validity study of the Cornell Scale among elderly inpatients, using various clinical criteria. *Dementia and Geriatric Cognitive Disorders, 29,* 438-447. doi:10.1159/000313533

Bartels, S.J., & Naslund, J.A. (2013). The underside of the silver tsunami: Older adults and mental health care. *New England Journal of Medicine, 368,* 493-496. doi:10.1056/NEJMp1211456

Brown, E.L., Bruce, M.L., McAvay, G.J., Raue, P.J., Lachs, M.S., & Nassisi, P. (2004). Recognition of late-life depression in home care: Accuracy of the outcome and assessment information set. *Journal of the American Geriatrics Society, 52,* 995-999.

Brown, E.L., Meyers, B.S., Lee, P.W., Fyffe, D.C., Raue, P.J., & Bruce, M.L. (2004). Late-life depression in home care: Is nursing ready? *Long-Term Care Interface, 5,* 34-36, 47.

Brown E.L, Raue P.J., & Halpert K.D. (2014). Detection of depression in older adults with dementia. In M.G. Titler (Series Ed.), *Series on evidence-based practice for older adults.* Iowa City, IA: University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core.

Brown, E.L., Raue, P., Schulberg, H., & Bruce, M. (2006). Clinical competencies: Caring for late-life depression in home care patients. *Journal of Gerontological Nursing, 32*(9), 10-14.

Bruce, M.L., Seeman, T.E., Merrill, S.S., & Blazer, D.G. (1994). The impact of depressive symptomatology on physical disability: MacArthur studies on suc-

cessful aging. *American Journal of Public Health, 84,* 1796-1799.
Burke, W.J., Houston, M.J., Boust, S.J., & Roccaforte, W.H. (1989). Use of the Geriatric Depression Scale in dementia of the Alzheimer type. *Journal of the American Geriatrics Society, 37,* 856-860.
Callahan, C.M., Boustani, M.A., Unverzagt, F.W., Austrom, M.G., Damush, T.M., Perkins, A.J.,…Hendrie, H.C. (2006). Effectiveness of collaborative care for older adults with Alzheimer disease in primary care: A randomized controlled trial. *Journal of the American Medical Association, 295,* 2148-2157.
Canuto, A., Rudhard-Thomazic, V., Herrmann, F.R., Delaloye, C., Giannakopoulos, P., & Weber, K. (2009). Assessing depression outcome in patients with moderate dementia: Sensitivity of the HoNOS65+ scale. *Journal of the Neurological Sciences, 283,* 69-72. doi:10.1016/j.jns.2009.02.312
Centers for Medicare & Medicaid Services. (2009). *OASIS-C guidance manual errata.* Retrieved from http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/OASIS-CGuidanceManualErrata.pdf
Centers for Medicare & Medicaid Services. (2012a). *Minimum Data Set 3.0 overview.* Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/Minimum-Data-Set-3-0-Public-Reports/index.html
Centers for Medicare & Medicaid Services. (2012b). *Outcome and assessment information set (OASIS).* Retrieved from http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/OASIS/index.html?redirect=/oasis
Centers for Medicare & Medicaid Services. (2015a). *CMS nursing home quality initiative.* Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursinghomeQualityInits/MDS30RAIManual.html
Centers for Medicare & Medicaid Services. (2015b). *Quality measures.* Retrieved from http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/HHQIQualityMeasures.html
Charney, D.S., Reynolds, C.F., III, Lewis, L., Lebowitz, B.D., Sunderland, T., Alexopoulos, G.S.,…Young, R.C. (2003). Depression and Bipolar Support Alliance consensus statement on the unmet needs in diagnosis and treatment of mood disorders in late life. *Archives of General Psychiatry, 60,* 664-672.
Conner, K.O., Copeland, V.C., Grote, N.K., Koeske, G., Rosen, D., Reynolds, C.F., III, & Brown, C. (2010). Mental health treatment seeking among older adults with depression: The impact of stigma and race. *American Journal of Geriatric Psychiatry, 18,* 531-543. doi:10.1097/JGP.0b013e3181cc0366
Corrigan, P.W., & Watson, A.C. (2002). Understanding the impact of stigma on people with mental illness. *World Psychiatry, 1,* 16-20.
Debruyne, H., Van Buggenhout, M., Le Bastard, N., Aries, M., Audenaert, K., De Deyn, P.P., & Engelborghs, S. (2009). Is the geriatric depression scale a reliable screening tool for depressive symptoms in elderly patients with cognitive impairment? *International Journal of Geriatric Psychiatry, 24,* 556-562. doi:10.1002/gps.2154
Eisses, A.M., Kluiter, H., Jongenelis, K., Pot, A.M., Beekman, A.T., & Ormel, J. (2005). Care staff training in detection of depression in residential homes for the elderly: Randomised trial. *British Journal of Psychiatry, 186,* 404-409.
Feher, E.P., Larrabee, G.J., & Crook, T.H., III. (1992). Factors attenuating the validity of the Geriatric Depression Scale in a dementia population. *Journal of American Geriatrics Society, 40,* 906-909.
Fenton, J., Raskin, A., Gruber-Baldini, A., Menon, A.S., Zimmerman, S., Kaup, B.,… Magaziner, J. (2004). Some predictors of psychiatric consultation in nursing home residents. *American Journal of the Geriatrics Psychiatry, 12,* 297-304.
Folstein, M.F., Folstein, S.E., & McHugh, P.R. (1975). "Mini-mental state": A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research, 12,* 189-198.
Greenberg, L., Lantz, M.S., Likourezos, M., Burack, O.R., Chichin, E., & Carter, J. (2004). Screening for depression in nursing home palliative care patients. *Journal of Geriatric Psychiatry and Neurology, 17,* 212-218.
Gruber-Baldini, A.L., Zimmerman, S., Boustani, M., Watson, L.C., Williams, C.S., & Reed, P.S. (2005). Characteristics associated with depression in long-term care residents with dementia. *The Gerontologist, 45*, 50-55.
HealthyPeople.gov. (2015). *Surgeon General healthy people 2020.* Retrieved from http://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders/objectives
Institute of Medicine. (2012). *The mental health and substance use workforce for older adults: In whose hands?* Washington, DC: The National Academies Press.
Jeon, Y.-H., Govett, J., Low, L.-F., Chenoweth, L., McNeill, G., Hoolahan, A.,… O'Connor, D. (2013). Care planning practices for behavioural and psychological symptoms of dementia in residential aged care: A pilot of an education toolkit informed by the Aged Care Funding Instrument. *Contemporary Nurse, 44,* 156-169. doi:10.5172/conu.2013.44.2.156
Jeon, Y.-H., Li, Z., Low, L.-F., Chenoweth, L., O'Connor, D., Beattie, E.,…Brodaty, H. (2015). The clinical utility of the Cornell Scale for Depression in Dementia as a routine assessment in nursing homes. *American Journal of Geriatric Psychiatry, 23,* 784-793. doi:10.1016/j.jagp.2014.08.013
Jost, B.C., & Grossberg, G.T. (1996). The evolution of psychiatric symptoms in Alzheimer's disease: A natural history study. *Journal of the American Geriatrics Society, 44,* 1078-1081.
Kafonek, S., Ettinger, W.H., Roca, R., Kittner, S., Taylor, N., & German, P.S. (1989). Instruments for screening for depression and dementia in a long-term care facility. *Journal of the American Geriatrics Society, 3,* 29-34.
Kales, H.C., Chen, P., Blow, F.C., Welsh, D.E., & Mellow, A.M. (2005). Rates of clinical depression diagnosis, functional impairment, and nursing home placement in coexisting dementia and depression. *American Journal of Geriatric Psychiatry, 13,* 441-449.
Koenig, H.G., Meador, K.G., Cohen, H.J., & Blazer, D.G. (1988). Self-rated depression scales and screening for major depression in the older hospitalized patient with medical illness. *Journal of the American Geriatrics Society, 36,* 699-706.
Landes, A.M., Sperry, S.D., & Strauss, M.E. (2005). Prevalence of apathy, dysphoria, and depression in relation to dementia severity in Alzheimer's disease. *Journal of Neuropsychiatry and Clinical Neurosciences, 17,* 342-349.
Lasalvia, A., Zoppei, S., Van Bortel, T., Bonetto, C., Cristofalo, D., Wahlbeck, K.,…Thornicroft, G. (2013). Global pattern of experienced and anticipated discrimination reported by people with major depressive disorder: A cross-sectional survey. *Lancet, 381,* 55-62. doi:10.1016/S0140-6736(12)61379-8
Lee, H.B., & Lyketsos, C.G. (2003). Depression in Alzheimer's disease: Heterogeneity and related issues. *Biological Psychiatry, 54,* 353-362.
Lesher, E.L., & Berryhill, J.S. (1994). Validation of the Geriatric Depression Scale—Short Form among inpatients. *Journal of Clinical Psychology, 50,* 256-260.
Lespérance, F., Frasure-Smith, N., & Talajic, M. (1996). Major depression before and after myocardial infarction: Its nature and consequences. *Psychosomatic Medicine, 58,* 99-110.
Lin, J.N., & Wang, J.J. (2008). Psychometric

evaluation of the Chinese version of the Cornell Scale for Depression in Dementia. *Journal of Nursing Research, 16,* 202-210.

Lyketsos, C.G., & Olin, J. (2002). Depression in Alzheimer's disease: Overview and treatment. *Biological Psychiatry, 52,* 243-252.

Lyketsos, C.G., Steele, C., Baker, L., Galik, E., Kopunek S., Steinberg, M., & Warren A. (1997) Major and minor depression in Alzheimer's disease: Prevalence and impact. *Journal of Neuropsychiatry and Clinical Neurosciences, 9,* 556-561.

McCabe, M.P., Davison, T., Mellor, D., George, K., Moore, K., & Ski, C. (2006). Depression among older people with cognitive impartment: Prevalence and detection. *International Journal of Geriatric Psychiatry, 21,* 633-644.

McGivney, S.A., Mulvihill, M., & Taylor, B. (1994). Validating the GDS depression screen in the nursing home. *Journal of the American Geriatrics Society, 42,* 490-492.

Medicare Improvements for Patients and Providers Act of 2008, Pub. L. No. 110-275 (2008).

Müller-Thomsen, T., Arlt, S., Mann, U., Mass, R., & Ganzer, S. (2005). Detecting depression in Alzheimer's disease: Evaluation of four different scales. *Archives of Clinical Neuropsychology, 20,* 271-276.

Newman, J.C. (2015). Copyright and bedside cognitive testing: Why we need alternatives to the Mini-Mental State Examination. *JAMA Internal Medicine, 175,* 1459-1460. doi:10.1001/jamainternmed.2015.2159

Olin, J.T., Schneider, L.S., Katz, I.R., Meyers, B.S., Alexopoulos, G.S., Breitner, J.C.,…Lebowitz, B.D. (2002b). Provisional diagnostic criteria for depression of Alzheimer disease. *American Journal of Geriatric Psychiatry, 10,* 125-128.

Piven, M.L.S., & Titler, M.G. (2005). *Detection of depression in the cognitively intact older adult.* Iowa City, IA: University of Iowa Gerontological Nursing Interventions Research Center, Research Translation and Dissemination Core.

Rovner, B.W., & Ganguli, M. (1998). Depression and disability associated with impaired vision: The MoVies Project. *Journal of the American Geriatrics Society, 46,* 617-619.

Schmidt, I.K., & Svarstad, B.L. (2002). Nurse-physician communication and quality of drug use in Swedish nursing homes. *Social Science & Medicine, 54,* 1767-1777.

Sheikh, J.I., & Yesavage, J.A. (1986). Geriatric Depression Scale (GDS): Recent evidence and development of a shorter version. In T.L. Brink (Ed.), *Clinical gerontology: A guide to assessment and intervention* (pp. 165-174). New York, NY: Haworth.

Sirey, J.A., Bruce, M.L., Alexopoulos, G.S., Perlick, D.A., Friedman, S.J., & Meyers, B.S. (2001). Stigma as a barrier to recovery: Perceived stigma and patient-related severity of illness as predictors of antidepressant drug adherence. *Psychiatric Services, 52,* 1615-1620.

Snowdon, J., & Fleming R. (2008). Recognising depression in residential facilities: An Australian challenge. *International Journal of Geriatric Psychiatry, 23,* 295-300.

Snowden, M., Sato, K., & Roy-Byrne, P. (2003). Assessment and treatment of nursing home residents with depression or behavioral symptoms associated with dementia: A review of the literature. *Journal of the American Geriatrics Society, 51,* 1305-1317.

Tappen, R.M., & Williams, C.L. (2008). Development and testing of the Alzheimer's disease and Related Dementias Mood Scale. *Nursing Research, 57,* 426-435. doi:10.1097/NNR.0b013e31818c3dcc

U.S. Department of Health and Human Services. (2008). *Reimbursement of mental health services in primary care settings.* Retrieved from http://store.samhsa.gov/shin/content/SMA08-4324/SMA08-4324.pdf

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, & National Center for Health Statistics. (2013). *Long-term care services in the United States: 2013 overview.* Retrieved from http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf

Watson, L.C., Zimmerman, S., Cohen, L.W., & Dominik, R. (2009). Practical depression screening in residential care/assisted living: Five methods compared with gold standard diagnoses. *American Journal of Geriatric Psychiatry, 17,* 556-564.

Wragg, R.E., & Jeste, D.V. (1989). Overview of depression and psychosis in Alzheimer's disease. *American Journal of Psychiatry, 145,* 577-587.

ABOUT THE AUTHORS

Dr. Brown is Associate Professor of Nursing, Nicole Wertheim College of Nursing and Health Sciences, Florida International University, Miami, Florida; Dr. Raue is Associate Professor of Psychology in Psychiatry, Weill Cornell Medical College, New York, New York; and Dr. Halpert is Clinical Assistant Professor, Department of Family Medicine, University of North Carolina Chapel Hill, Chapel Hill, North Carolina.

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Address correspondence to Ellen Leslie Brown, EdD, MS, RN, FAAN, Associate Professor of Nursing, Nicole Wertheim College of Nursing and Health Sciences, Florida International University, 11200 SW 8th Street, AHC-3, Office 226, Miami, FL 33199; e-mail: ebrown@fiu.edu.

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