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Introduction

The American Indian and Alaska Native (AI/AN) elder population is expected to double by 2030. To support this population, the Uniting Nursing Homes in Tribal Excellence (UNITE) collaborative works to discuss best practices, promote evidence-based education and trainings, and develop quality improvement initiatives among tribal nursing homes focusing on topics such as traditional foods, working with governing boards, and dementia and Alzheimer’s Disease. With an increasing number of elders, the need for dementia care and assessment tools is becoming a growing need in Indian Country. AI/ANs have a 35% lifetime risk of developing dementia, with an annual rate of dementia at 22.2 cases per 1,000 people. 1 Kauffman & Associates, Inc. developed the following annotated literature review of dementia assessment tools as a resource for stakeholders within the collaborative and as a next step to additional research on dementia care for AI/AN elders.

Attitudes of elderly subjects toward “truth telling” for the diagnosis of Alzheimer’s disease


This article discusses the results of a study on the attitudes and opinions of older adults toward the disclosure of Alzheimer’s disease diagnoses. Although little research has been done on the impact of disclosing a dementia diagnosis to a patient, the American Medical Association (AMA) recommends “the diagnosis be given directly to a patient if at all possible” (page 90). Currently, only about 50 percent of adults are given a diagnosis directly.

This study is based on a sample of 200 older adults without cognitive difficulties. The demographics included more African Americans, males, Medicaid recipients, and people with a relatively low education level than a previous, otherwise identical study. The authors noted that since this is a study of cognitively intact elders, it may not reflect how actual patients with Alzheimer’s disease comprehend or benefit from knowledge of their diagnosis (page 92). For this reason, the authors recommend that patients with Alzheimer’s disease be included in future studies.

Study participants were questioned about their desire to know their diagnosis or for their spouse to be told their diagnosis. They were also asked about their reasons for wanting to know or not know the diagnosis. This study found that more older adults tend to agree with AMA guidelines, in that they would like to be told the diagnosis. Their reasons included, “advance/financial planning, to get a second

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opinion, settle family matters, and to travel/vacation, to explain symptoms, to inform family, or to commit suicide” (page 92). The authors note that it is important for clinical providers to remain aware of the risk of depression and suicide and to monitor new diagnoses closely. They recommend further research to explore how the severity of dementia affects the patient’s response to their diagnosis (page 93).

**Challenges to the recognition and assessment of Alzheimer’s disease in American Indians of the southwestern United States**


This article talks about the interaction between culture and Alzheimer’s disease and other dementias among southwestern American Indian populations. The authors identify many reasons for why dementia is underdiagnosed or misdiagnosed for these populations, including:

- limited access to care (page 1),
- historical trauma,
- cultural perceptions of Alzheimer’s disease and other dementias, and
- caregivers who prefer to take care of their elderly, rather than seek outside help.

The authors note several challenges to sufficiently studying the prevalence of Alzheimer’s disease and other dementias for this population. They say there are not enough persons with dementia for a sufficient study and no culturally sensitive instrument to measure the diversity of tribes and Native languages. Further, historic relations between tribes and researchers impede many data collection efforts and the detection of dementia.

The authors list language fluency, bilingualism, and literacy as being relevant to the development of a culturally sensitive instrument (page 7). The authors conclude that Alzheimer’s disease is expected to become a more common health issue among American Indians, especially with the unique challenges of detection and assessment for this population. They add that understanding cultural and experiential factors are important to providing better health care.
Cognitive assessment toolkit: A guide to detect cognitive impairment quickly and efficiently during the Medicare annual wellness visit


This 26-page guide, developed by a group of clinical dementia experts, contains the Cognitive Assessment Toolkit. The tool kit helps health care providers identify patients with probable cognitive impairment using the cognitive assessment tool that works best. The toolkit contains the following resources:

- the Medicare Annual Wellness Visit Algorithm for Assessment of Cognition, which focuses on patient history, clinician observations, and concerns expressed by patient, family or caregiver;
- three validated patient assessment tools—the General Practitioner Assessment of Cognition (GPCOG), the Memory Impairment Screen, and the Mini-Cog Assessment; and
- three validated informant assessments of patient tools—the Short Form of the Informant Questionnaire on Cognitive Decline in the Elderly, the Eight-Item Informant Interview of Differentiate Aging and Dementia, and the GPCOG.

The toolkit also includes the Alzheimer’s Association’s recommendations for operationalizing the detection of cognitive impairment during the Medicare annual wellness visit in a primary care setting.

Detection of dementia in primary care: Comparison of the original and a modified Mini-Cog Assessment with the Mini-Mental State Examination


This paper looks at detecting dementia in primary care settings by looking at two versions of the Mini-Cog assessment with the MMSE, which measure dementia in patients. The authors discuss the difficulty of detecting dementia in primary care settings and the controversy around screening for dementia in such settings (page 210). They say that, of the many tools for dementia screening, none are specific to general practitioners of primary care settings.
LTSS Research:
Dementia Assessment Tools in Indian Country

The authors conducted this study in two phases and recruited participants from 10 general practitioners in Lower Austria and Vienna (page 212). The participants were between 65 and 98 years old, and all were identified by the general practitioner, themselves, or family on suspicion of memory loss or decline. The study excluded patients who were dependent on others and those who were already diagnosed with dementia. In Phase 1 of the study, a general practitioner used a color-coded Mini-Cog Assessment, which is a recall test that assesses a patient’s ability to remember three words after 1 minute (page 211). In Phase 2, a neurologist used the MMSE to screen for dementia.

The authors found that the Mini-Cog Assessment was a useful tool in a general practitioner setting because results were close to the non-modified Mini-Cog Assessment used by the neurologist, in terms of specificity and sensitivity. They also noted the following limitations (page 216).

- The number of patients who complained to the general practitioner for the first time of symptoms suggestive of dementia was not as high as it could have been.
- The neurologist did not use complete tests to establish a dementia diagnosis.
- The coexistence of depression was not excluded or verified through a proper diagnosis tool.

The emergence of dementia as a health concern among First Nations populations in Alberta, Canada


This article reviews a study on the prevalence of dementia in Canadian First Nations communities, reviewing data from Alberta Health and Wellness for 1998 to 2009. The study revealed a rise in the diagnosis of dementia among First Nations people, which may result from a combination of reasons. The authors found that dementia rose more quickly for First Nations populations than for the general population. The authors also reported that the prevalence of dementia diagnosis among First Nations men was higher than for First Nations women (page 43).

Though the authors say there is not a single specific cause for the rise in dementia among First Nations people, there are many influential factors. These may include limited access to care; high rates of comorbid conditions, such as diabetes or hypertension; a prevalence of social and physiological risk factors; and other social determinants of health. The authors note that, although dementia has likely been an issue in First Nations communities before the increase in diagnoses, it may have been viewed as a natural course of aging. Changing perceptions of the illness may also be factor in the rise in diagnoses (page 43). Other factors may include post-traumatic stress disorder and historical trauma that First Nations people often face.
Dementia is an emerging health concern for First Nations people. The authors highlight a need for policies, programs, and care geared specifically to First Nations populations (page 39). They say the study results support responsive program planning by all First Nations health programs.

Gender and MMSE performance in Native American elderly


This paper explores the role of gender as a risk factor for Alzheimer’s disease and other types of among American Indian and Alaska Native (AI/AN) elders. The authors rely on previous studies conducted by Ferraro et al. (2007)—specifically, the Mini-Mental Status Examination (MMSE) data from 162 AI/AN elders of three North Dakota tribes. The authors note, “While some have said that females are twice as likely to develop dementia over their lifetime, no studies could be found that have examined the effect of gender on MMSE performance within Native American elderly” (page 42).

The authors note that understanding how gender influences dementia risk is important to establishing how individuals are treated, who provides their care, and what interventions they need and when (page 42). The MMSE screens for cognitive impairment. Specifically, it measures “age, gender, education, self-rated health, number of medications currently being taken and immediate and delayed logical memory, 15-item Boston Naming Test, and Digit Symbol Substitution performance” (page 43).

From the study, authors found that gender does not impact MMSE classification among AI/AN elders. Further, the AI/AN elders who participated in the MMSE performed within the bounds of those who do not live in Native communities (page 43). The authors note this finding may help future interventions tackle dementia among AI/AN elders.

Health and health care of American Indian and Alaska Native elders


This article describes a module on the health status of AI/AN elders that was created by Stanford University. The module contains eight learning objectives for learners to help them understand AI/AN elder health and health care in Indian Country, as follows.

- Describe the unique relationship between AI/AN tribes and the U.S. government.
- Develop historical contexts of the daily life of AI/ANs.
- Identify major sources of data for AI/AN epidemiology and issues with data collection.
- List the top five causes of death for AI/ANs and the effects of culturally appropriate prevention programs.
- Recognize the conflicting values between AI/AN and Euro-American health care systems.
• Describe the use of an AI/AN cohort analysis to understand historical life influences and experiences of AI/ANs.
• Describe strategies for culturally appropriate verbal and non-verbal communication skills with older AI/ANs and their families.
• Discuss the importance of eliciting information regarding illness and wellness from the view of AI/AN elders and their families in treatment planning.

The article contains AI/AN demographics, including the dramatic increases of the older AI/AN population reflected in the 2000 Census (page 2). When it comes to patterns of health risk, the authors write that the major source of data is through the Indian Health Service (page 9), which only tells about the availability of services, rather than actual prevalence of illness. The authors discuss how the prevalence of disease varies by region, with mortality rates being underreported by 10 percent due to misidentification or misclassification.

The authors also highlight the leading causes of death among AI/AN elders aged 65 and older during 1992 and 1994: heart disease, cancer, stroke, diabetes, and pneumonia/influenza (page 10). In addition, the authors cite depression, alcohol abuse, suicide, dementia, and elder abuse as top mental health issues. The authors claim that, while dementia is considered rare in the AI/AN community, it is likely that vascular-type dementias will become more common as this population ages, since this type of dementia is associated with diabetes more than other types of dementia (page 12). The article also features several tribal perspectives of dementia among the Cherokee, Navajo, Choctaw, and Lakota Sioux (page 22).

Health care professionals and Alzheimer’s: Cognitive assessment


The Alzheimer’s Association worked with a group of experts to create a cognitive assessment toolkit as a resource for health care professionals. The toolkit explains three assessment tools health care professionals can use during annual Medicare wellness visits. It provides tools and resources, like videos, on who should be evaluated and describes the importance of Medicare annual wellness visits. The wellness visit is an opportunity for Medicare beneficiaries to personalize a prevention plan and detect possible cognitive impairment. The Alzheimer’s Association recommends evaluating the following individuals for cognitive impairment:

• patients with memory concerns or other cognitive complaints;
• patients for whom there is an informant report of cognitive impairment, with or without patient concurrence; and
• Medicare beneficiaries, as part of the Medicare annual wellness visit.
Inequalities in dementia incidence between six racial and ethnic groups over 14 years


This article talks about health disparities in dementia across races and ethnicities. Based on a 14-year prospective study conducted from January 1, 2000, through December 31, 2013, the authors argue that social and behavioral factors influence this health outcome. The study population was a cohort of older adults in northern California with equal access to care. The study’s sample comprised African Americans, American Indians and Alaska Natives, Latinos, Pacific Islanders, Whites, and Asian Americans. The sample was also arranged by sex and age, with a 25-year cumulative incidence of dementia for each group (page 2).

To measure for incidence of dementia, the authors used a 4-year washout period and made sure participants did not have dementia at the start of the study. Study participants were followed until the end of their health plan memberships, death, or the end of the study period (page 2). The authors identified dementia diagnoses from electronic medical records of inpatient and outpatient clients for the study period. The authors relied on use of the *International Classification of Diseases, Ninth Revision* diagnostic codes for Alzheimer’s disease. The study found that dementia incidence was highest among African Americans, followed by American Indians and Alaska Natives, and was lowest among Asian Americans (pages 8–9).

Mental health disorders among an invisible minority: Depression and dementia among AI/AN elders


Within this paper, the authors note a shortage of social and health services for Indian Country. This shortage is a reason why AI/ANs, or the “invisible minority,” suffer from significant health and socioeconomic disparities (page 227). Specifically, the authors focus on depression and dementia, which “comprise a hidden malady among this minority population” (page 228). Further, the authors find that dementia and depression are not priority issues in AI/AN communities’ current health care systems, which makes it more difficult to address and track the mental health of this population.

The authors note that the prevalence of mental health disorders among older AI/AN adults is emerging as an epidemic (page 228). Two factors contribute to this epidemic in AI/AN communities: general aging and AI/AN youth who move away. The latter makes it difficult for elderly AI/ANs to keep caregivers,
which contributes to existing health disparities among AI/AN elders. This population is projected to nearly quadruple by 2050, and the authors note that health services will need to conform to this growth.

The authors also discuss how chronic conditions, like diabetes, are associated with greater risk of dementia among AI/ANs. They point to literature by Mayeda and colleagues (2014), which found that African Americans and Native Americans had the highest rates of diabetes over a 10-year period. Since diabetes is projected to increase among AI/ANs over 75 years old, the authors say the rate of dementia among this age group is also projected to grow (page 231).

Suicide can result from untreated mental illness, like depression. For AI/AN populations, the suicide rate is 1.5 times the national average (page 229).

The authors conclude that it is important to know the rates of dementia and depression among Native communities, so health care providers can develop strategies to effectively address this epidemic. The authors recommend strategies to better understand mental health among AI/AN populations, including the following (page 233).

- The federal government should conduct studies on diabetes and dementia prevalence for AI/ANs living on reservations and for those who do not.
- The federal government needs to look at the overall state of elder health, specifically that of the AI/AN population.
- Policy makers need to amend current laws to reflect shifts among AI/AN populations (page 233).
- Existing Indian health care delivery systems should have staff and strategies to tackle dementia and depression.

People with dementia in nursing home research: A methodological review of the definition and identification of the study population


In this article, the authors attempt to define dementia based on its various definitions and diagnostic criteria from existing literature. They argue that the various understandings of dementia often lead to discrepancies in clinical practice and research. The study relied on Medline and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases to look for pre-2016 studies done in German nursing homes that focused on dementia or cognitive impairment (page 1). In their literature review, the authors sought to answer the following research questions (page 3).
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• How is dementia defined and measured in health services research studies in German nursing homes?  
• Which implications can be derived for health services research in nursing homes?

Based on their review of 64 articles, the authors found that it is important to document how dementia is diagnosed, considering there is no clear definition of dementia or applied diagnostic criteria. The authors also stressed the need for consistent reporting by health care staff to have reliable studies. Their review identified many approaches to diagnosing dementia and reporting dementia diagnoses. For instances of reporting, various assessments were used to diagnose dementia without clearly determining such a diagnosis. Their review also showed that the many variations of sampling methods often impede the comparability of study results (page 1). They found four sampling methods to identify residents with dementia, and noted that guideline- and criteria-based sampling methods are the most valid methods to select study participants (page 16).

Performance of elderly Native Americans and Caucasians on the CERAD Neuropsychological Battery


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This article discusses the results of a study on 40 elderly American Indians and 40 Caucasians that used the Consortium to Establish a Registry for Alzheimer’s Disease Neuropsychological Battery (CERAD-NB) cognitive screening battery. The goal of the study was to see if cultural differences between the two groups affected the CERAD-NB. The American Indian study participants identified primarily as Cherokee or Choctaw. All participants had been diagnosed as having possible or probable Alzheimer’s disease and were matched as closely as possible, demographically. The assessment results found no significant differences between the two groups using the CERAD-NB measures. However, since this study represented a small sample of American Indians, the authors recommend further testing with a larger sample of American Indians from a variety of tribal communities.
Predictors of performance on the MMSE and the DRS-2 among American Indian elders


The authors recognize the increased life expectancy among American Indians brings with it a focus on the high rates of conditions that increase risk for poor cognitive functioning among American Indian elders. Risk factors include alcohol abuse, addiction, diabetes, traumatic brain injury, obesity, and heart disease. The authors discuss how little is known about the measures for common neurocognition screening used among this population (page 417). This lack of data suggests a need to identify and develop methods to adequately test this population for cognitive impairment, as the risk for developing cognitive disorders increases with age (page 418).

The authors report that few studies examine dementia among American Indian populations. They further report that acculturation status may affect elder performance on cognitive tests. The authors explain that overall studies show little difference in test performance between Native and non-Native populations, including acculturated Natives (page 418).

The authors investigated the use of the MMSE and the Mattis Dementia Rating Scale-Second Edition (DRS-2), comparing age- and education-adjusted norms. The investigation concluded that ethnicity, socioeconomic status, type of education, and language possibly affect performance on the MMSE and DRS-2. The authors note a need to develop culturally appropriate norms. They report that low-quality education experiences and associated deprivations, like poor nutrition and inadequate health care, could contribute to poor cognitive health (page 418).

Remote neuropsychological assessment in rural American Indians with and without cognitive impairment


This article shares the results of a study that compared video teleconference (VTC) testing to traditional face-to-face testing to assess rural American Indians for dementia. The authors discuss the substantial growth of telemedicine, which has been well-received by patients and providers. However, there is little research about VTC’s effectiveness with urban and ethnic minority groups, as nearly all studies have been with the Caucasian population. The researchers conducted this study with 84 AI/AN participants.
who identified as Choctaw, Cherokee, Creek, or Chickasaw. The AI/AN elder population is growing twice as fast as the general U.S. population. However, they face more barriers to health care than most of the population. The authors list limited access to consultants, community support, and educational resources as barriers to diagnosing and treating dementia in rural areas (page 2).

The authors noted that 29 of the study participants had a mild cognitive impairment or dementia diagnosis and 55 were cognitively intact. The study administered standard tests to each participant by VTC and in person. All but two participants were tested in the same day, within 20 minutes of the previous test. The authors found that VTC test scores, including those for neurological assessments, were similar to in-person scores and should offer rural AI/ANs a reasonable diagnostic alternative.

Understanding dementia in the sociocultural context: A review

This review looks at dementia from many perspectives. To get a better sociocultural understanding of dementia, the authors used Medline and Google Scholar to search for terms that included “anthropology,” “culture,” “ethnic elderly,” and “dementia.” The authors found a stigma around dementia in Western society, where a person’s memory loss, behavior, and inability to care for themselves are seen as obstacles. The authors note that Western medicine, also known as the Western biomedical model, tends to support this claim, which can further alienate people who have dementia and associate their symptoms with negative connotations. The authors discuss how race-specific factors influence the way certain communities define dementia, as different communities may have different beliefs about health or may follow different illness behavior models (page 202). The authors examine dementia through the lens of Chinese, East Indians, American Indians, African Americans, Hispanic Latinos, Indigenous Australians, Native Hawaiians, and Arabs. They note that in these societies, the concept of dementia should stem from multiple factors, examples of which follow (pages 199–202).

- Chinese who believe in Confucianism view dementia as retribution for one’s sins or as an imbalance and affliction of negative energies, while Chinese-Americans, influenced by colonization, view dementia as part of the aging process, though they may also associate a stigma with dementia.
- East Indians who practice Hinduism believe that dementia is not a medical condition, but a normal part of aging, and they may equate dementia with misbehavior.
- American Indians, with many different world views, see dementia as part of the aging or dying process.
The usefulness of the SLUMS test for diagnosis of mild cognitive impairment and dementia


This article reviews the effectiveness of the Saint Louis University Mental Status (SLUMS) Examination in diagnosing mild cognitive impairment (MCI) compared to the more commonly used tests in Polish clinical practice. The article defines MCI as a phrase often used to refer to the transition period between normal cognitive functioning and dementia (page 1). The authors note a key challenge in diagnosing MCI is to raise awareness about it and promote early detection by general practitioners during routine visits through the use of screening tools (page 2). The SLUMS Examination was created to replace other screening tools previously used to diagnose MCI that were limited by poor sensitivity. The more commonly used tests are:

- Mini-Mental State Examination, which is the most frequently used tool to assess cognitive function in Poland;
- Short Test of Mental State, which is used increasingly as a screening scale for assessing cognitive function in the elderly; and
- Test Your Memory, which assesses cognitive function by having the patient fill out the test (page 4).

The study divided 58 Polish nursing home residents, aged 64 and older, into three groups: (1) people showing no signs of dementia, (2) people with MCI, and (3) people with suspected dementia (page 1). The researchers administered each test to all participants. The authors found the SLUMS Examination to be effective. It demonstrates superior capabilities in screening diagnosis, especially compared to the MMSE. However, the SLUMS Examination lacks written instructions for clinicians, which may lead them to carry out non-uniform tests (page 14).