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Review Article

Nonphysician Care Providers Can Help to Increase Detection of Cognitive Impairment and Encourage Diagnostic Evaluation for Dementia in Community and Residential Care Settings

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Abstract

In the United States, at least half of older adults living with dementia do not have a diagnosis. Their cognitive impairment may not have been detected, and some older adults whose physician recommends that they obtain a diagnostic evaluation do not follow through on the recommendation. Initiatives to increase detection of cognitive impairment and diagnosis of dementia have focused primarily on physician practices and public information programs to raise awareness about the importance of detection and diagnosis. Nonphysician care providers who work with older adults in community and residential care settings, such as aging network agencies, public health agencies, senior housing, assisted living, and nursing homes, interact frequently with older adults who have cognitive impairment but have not had a diagnostic evaluation. These care providers may be aware of signs of cognitive impairment and older adults' concerns about their cognition that have not been expressed to their physician. Within their scope of practice and training, nonphysician care providers can help to increase detection of cognitive impairment and encourage older adults with cognitive impairment to obtain a diagnostic evaluation to determine the cause of the condition. This article provides seven practice recommendations intended to increase involvement of nonphysician care providers in detecting cognitive impairment and encouraging older adults to obtain a diagnostic evaluation. The Kickstart-Assess-Evaluate-Refer (KAER) framework for physician practice in detection and diagnosis of dementia is used to identify ways to coordinate physician and nonphysician efforts and thereby increase the proportion of older adults living with dementia who have a diagnosis.

Keywords: Dementia, Early Detection, Diagnosis, Cognitive Impairment, Community-based care providers

Introduction

In the United States, less than half of older adults living with dementia say, or their proxy respondents say, that a physician has diagnosed the condition (Amjad, Roth, Samus, Yasar, & Wolff, 2016). A much smaller proportion of older adults living with dementia has a diagnosis of the condition documented in their medical record (Boise, Neal, & Kaye, 2004; Boustani, Callahan, Unverzagt, Austrom, & Perkins, 2005; Chodosh et al., 2007; McCarten et al., 2012). Cognitive impairment in older adults is frequently not detected in primary care and other physician practice settings (Borson, Scanlan, Watanabe, Tu, & Lessig, 2006; Chodosh et al., 2004). When cognitive impairment is not detected in such settings, the older adult is very unlikely to

receive a diagnostic evaluation that could identify its cause and diagnose dementia if it is present. Often, even when a physician is aware of an older adult's cognitive impairment and recommends that the older adult have a diagnostic evaluation, the individual does not follow through on the recommendation (Boustani et al., 2005; Fowler, Frame, Perkins, Gao, & Watson, 2015; Harris, Ortiz, Adler, Yu, & Maines, 2011; McCarten et al., 2012). Moreover, most persons living with dementia who have been given a dementia diagnosis are not aware of or do not understand the diagnosis (Bradford, Upchurch, Bass, Judge, & Snow, 2011; Centers for Disease Control and Prevention, 2017). Likewise, their family members are sometimes unaware of or do not understand the diagnosis.

People who have dementia but have not been diagnosed and their families are unlikely to receive the valuable dementia services and supports described in other articles in this journal issue. These services and supports include: assessment to identify their specific care and service needs and care planning to meet those needs (Molony, Kolanowski, Van Haitsma, & Rooney, 2018); information about dementia and support for dementia care (Whitlatch & Orsulic-Jeras, 2018); help with dementia-related limitations in personal care and other daily activities (Prizer & Zimmerman, 2018); assistance to avoid or reduce behavioral symptoms (Scales, Zimmerman, & Miller, 2018); modifications to their physical environment to improve safety and increase quality of life (Calkins, 2018); ongoing medical management that takes account of their dementia (Austrom, Boustani, & LaMantia, 2018); and assistance with care transitions that similarly takes account of their dementia (Hirschman & Hodgson, 2018).

To date, most initiatives of international, national, and state organizations to increase detection of cognitive impairment and diagnosis of dementia have focused on the role of physicians (see, e.g., Alzheimer's Association, 2015; Alzheimer's Association and Centers for Disease Control and Prevention, 2013; Georgia Alzheimer's Disease and Related Dementias State Plan Task Force, 2014; Michigan Dementia Coalition, 2009; Prince, Bryce, & Ferri, 2011; Prince, Comas-Herrera, Knapp, Guerchet, & Karagiannidou, 2016; U.S. National Institute on Aging, no date; U.S. Department of Health and Human Services, 2013; U.S. Department of Veterans Affairs, 2016; World Health Organization, 2016). These organizations have also supported public information initiatives to increase general awareness of dementia and the importance of detection and diagnosis. The same organizations have supported initiatives to encourage individuals with concerns about their memory and families that have concerns about an older adult's cognition to express those concerns to the person's physician.

Less attention has been given to the role of nonphysician care providers who work with older adults and their families in community and residential care settings. These care providers include individuals who work in area agencies on aging, aging and disability resource centers, information and referral agencies, senior centers, senior housing, personal care homes, assisted-living facilities, nursing homes, home health agencies, homemaker and personal care agencies, care management agencies, adult day centers, pharmacies, and public health and community nursing agencies. They also include self-employed geriatric care consultants, family counsellors, and home care aides.

Although no prevalence data are available, it is likely that many nonphysician care providers interact frequently with older adults who have signs and symptoms of cognitive impairment but have not had a diagnostic evaluation. Some of these care providers may notice signs and symptoms of cognitive impairment before the signs and symptoms are detected by an older adult's physician. Likewise, some nonphysician care providers may be aware of concerns of older adults and their families about the older adult's cognition that older adults and families have not expressed to physicians. Some nonphysician care providers may also be aware that older adults whose physician has recommended a diagnostic evaluation have not followed through on that recommendation. In addition, nonphysician care providers may be aware that older adults who have received a dementia diagnosis, and sometimes their families, are not aware of or do not understand the diagnosis. Despite the greater amount of attention that has been given to the roles of physicians and public information initiatives in increasing detection of cognitive impairment and diagnosis of dementia, nonphysician care providers can also help with these objectives by encouraging older adults to talk with their physician about cognitive concerns, and encouraging them to follow through on physician recommendations to obtain a diagnostic evaluation, thereby increasing diagnosis of dementia.

This article begins with an overview of the 4-step Kickstart-Assess-Evaluate-Refer (KAER) framework for detection and assessment of cognitive impairment, diagnosis of dementia, and referral of persons living with dementia and their families to potentially beneficial community resources. The KAER framework was developed for primary care physicians by the Gerontological Society of America (GSA) Workgroup on Cognitive Impairment Detection and Earlier Diagnosis (Gerontological Society of America, 2015). In this article, the KAER framework is used as a point of departure to help organize and discuss ways in which nonphysician care providers can help to increase detection of cognitive impairment, encourage older adults to obtain a diagnostic evaluation, and support awareness and understanding of the diagnosis. The article then summarizes recommendations from published dementia care guidelines that pertain to the roles that nonphysician care providers can play in the detection of cognitive impairment and diagnosis of dementia, discusses precedents found in the roles nonphysician care providers now play in detecting other health-related conditions, such as fall risk and depression in older adults, and provides examples of research and

demonstration projects that have involved nonphysician care providers in detection of cognitive impairment. The article presents seven practice recommendations intended to increase and support the involvement of nonphysician care providers in detecting cognitive impairment and encouraging diagnostic evaluation within their authorized scope of practice and training and relevant agency policies and procedures, if any.

In the United States, legal authority to diagnose dementia resides with physicians. This article does not suggest that nonphysician care providers should diagnose dementia. Rather it points out valuable contributions they can make in helping to detect cognitive impairment and encouraging older adults with cognitive impairment to obtain a diagnostic evaluation. Involving nonphysician care providers in these activities is person-centered because it acknowledges the frequent contacts and trusting relationships many older individuals have with one or more nonphysician care providers. Because of these relationships, older individuals may turn first to such providers with questions and concerns about their cognition and rely strongly on the information and advice these care providers offer. By acknowledging and building on these relationships, efforts to involve nonphysician care providers in detecting cognitive impairment and supporting older adults in obtaining a diagnosis reflect a more person-centered approach than efforts that focus only on physicians and public information initiatives.

The KAER Framework for Detection of Cognitive Impairment and Diagnosis of Dementia

The 4-step KAER framework is intended to guide primary care physicians through the process of detecting and assessing cognitive impairment, diagnosing dementia, and referring persons with diagnosed dementia to dementia-capable community resources. Depending on state regulations, physician assistants and advance practice nurses may have legal authority to diagnose dementia, and these primary care providers are considered equivalent to primary care physicians in the context of the KAER framework.

The KAER framework acknowledges the fear and stigma that surround memory loss and cognitive decline, and recognizes the importance of care partners within family and friend networks throughout the process of cognitive impairment detection, diagnosis of dementia, and post-diagnosis referrals. Including family and other care partners along with the physician and persons with cognitive impairment or dementia reflects the health care triad model in dementia care (Fortinsky, 2001). Adding nonphysician care providers, as discussed in this article, expands the triad model by engaging a fourth group of stakeholders to achieve more systematic detection of cognitive impairment and earlier diagnosis of dementia.

The KAER framework can be viewed within the context of the many transitions in the dementia journey that are experienced by individuals living with dementia and their care partners. A person's transition from dementia-related symptom recognition to diagnosis is often delayed due to the reluctance of individuals and families to seek help because they fear that a diagnosis will lead to disrupted relationships and diminished quality of life. A recent review of national dementia strategies in seven countries, including the United States, found that this transition is widely recognized as difficult and requiring support to overcome fear and stigma associated with dementia (Fortinsky and Downs, 2014).

Figure 1 illustrates the KAER framework in a 4-step person-centered and family-centered flow diagram. The intended starting point for the 4-step process is a visit with an individual's physician. However, broadening the scope of care providers with whom older people and their families interact, this article recognizes that increased detection of cognitive impairment could be undertaken in other settings where nonphysician care providers may offer information, assistance, or supervision, such as individuals' homes, residential care facilities, and senior centers.

STEP 1—Kickstart the Cognition Conversation

A critical first step in detecting cognitive impairment and promoting earlier diagnosis of dementia is to "kickstart"—that is, to initiate and continue—a conversation with individuals and their families about brain health and memory-related signs and symptoms that might develop in older adulthood. There are many reasons why physicians might be reluctant to kickstart this conversation. Similarly, individuals and families may be reluctant to raise concerns about cognition with their physician due to fear and stigma often associated with dementia. Nevertheless, a frank yet sensitive discussion about the importance of brain health and early investigation of cognition-related complaints or concerns is a highly appropriate first step that might open the way for individuals and family members to reveal potential concerns.

Additional steps that physicians might take to initiate or continue cognition conversations include:

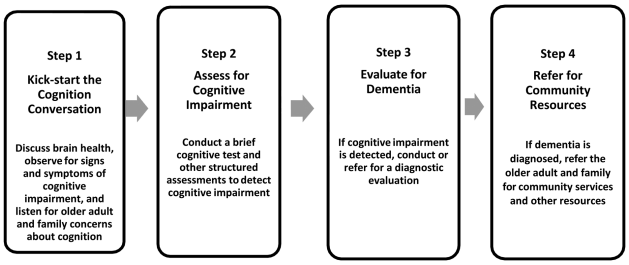

Figure 1. KAER framework to promote increased cognitive impairment detection and earlier diagnosis of dementia.

- Ask older adult patients whether they have concerns about their memory or cognition or have noticed changes in their memory or cognition since a previous office visit.
- Listen for and acknowledge concerns about memory and cognition that are expressed by older adult patients.
- Listen for family concerns about the older adult's memory and cognition.
- Observe for signs and symptoms of cognitive impairment.
- Add a question about memory or cognition on the health risk assessment or other questionnaire that older adults are asked to complete either before the physician visit or in the office before meeting with the physician. Possible questions could include, "Are you worried about your memory?" or "Have you experienced confusion or memory loss that is happening more often or is getting worse?"
- Use information about health conditions and functional difficulties from existing patient records, for example, falls or difficulty managing medications, both of which are common in older adults with cognitive impairment (Amjad et al., 2016; Verghese et al., 2008) as an entrée to engage patients in a conversation about the importance of monitoring cognitive health.

STEP 2—Assess if Symptomatic

This step focuses on the routine use of a brief, evidence-based assessment instrument to detect cognitive impairment. The KAER framework emphasizes the use of such assessment instruments to detect cognitive impairment in individuals with observable evidence of, or who expressed concern about, memory or associated cognitive symptoms. These individuals come to a physician's attention in one of three ways: (a) they report concerns about their memory or other cognitive abilities; (b) family members, friends, or others report concerns about older adults' memory or other cognitive abilities; and (c) physicians or primary care office staff notice observable clinical signs and symptoms of cognitive impairment based on changes compared to previous encounters. The GSA Workgroup on Cognitive Impairment Detection and Earlier Diagnosis also recognized that, although universal screening is highly controversial, some clinicians and other dementia care experts support routine use of a brief, evidence-based assessment instrument to detect cognitive impairment in older adults, including those who do not have observable evidence or have not expressed concerns about memory or other cognitive symptoms. (Borson and Chodosh, 2014; Borson et al., 2006; Dementia Friendly America, 2016).

Numerous evidence-based cognitive impairment assessment instruments have been reviewed by expert panels against properties that would encourage their widespread use: (a) can be administered in 5 minutes or less, (b) widely available free of charge, (c) designed to assess age-related cognitive impairment, (d) assess at least memory and one other cognitive domain, (e) validated in primary care or community-based samples in the United States, (f) easily administered by medical staff members who are not physicians, and (g) relatively free from educational, language, and/or cultural bias. Table 1 shows candidate assessment instruments recommended by an Alzheimer's Association workgroup (Cordell et al., 2013) and a National Institute on Aging (NIA) workgroup under contract with the U.S. Centers for Medicare and Medicaid Services (Ling, 2012). Although there is no perfect cognitive impairment assessment instrument, the table offers a limited number of assessment instruments that are widely available, free of charge, and fulfill clinically relevant and scientifically rigorous criteria.

The GSA Workgroup did not consider whether nonphysician care providers should use these or other assessment instruments to detect cognitive impairment outside a medical care setting. Whether the assessment instruments are adopted by physicians or nonphysician care providers, however, they should be used only after proper training is completed, and within the scope of practice of the user, regardless of professional background or care setting.

STEP 3—Evaluate With Full Diagnostic Workup if Cognitive Impairment is Detected

If, as a result of using an evidence-based assessment instrument to detect cognitive impairment per Step 2, individuals are found to have cognitive impairment, then qualified physicians should, at a minimum, rule out

Table 1. Selected Cognitive Impairment Assessment Instruments

	NIA Workgroup	Alzheimer's Association Workgroup
Ascertain dementia (AD8)	X	X
Brief Alzheimer's screen	X	
GPCOG for use with the patient		X
GPCOG for use with an informant		X
Memory impairment screen		X
Mental Status Questionnaire	X	
Mini-Cog	X	X
Short Blessed Test	X	
Short IQCODE for use with an informant		X
Short Portable Mental Status Questionnaire	X	
Short Test of Mental Status	X	
Six-Item Screener	X	

Source: Gerontological Society of America (GSA) Workgroup on Cognitive Impairment Detection and Earlier Diagnosis (Gerontological Society of America, 2015).

reversible, physiological causes of cognitive impairment per published clinical practice guidelines (e.g., thyroid or vitamin deficiency) by ordering appropriate laboratory tests. Qualified physicians also should conduct a full diagnostic evaluation per published clinical practice guidelines. Physicians who are unfamiliar with a full dementia diagnostic evaluation should refer patients to an available clinical specialist or team (e.g., geriatrician, neurologist, geriatric psychiatrist, neuropsychologist, nurse practitioner with geropsychiatric expertise) for a full diagnostic evaluation per published clinical practice guidelines. Numerous such guidelines are available to help PCPs and specialists diagnose dementia (see, e.g., American Academy of Neurology, 2013; American Geriatrics Society, 2011; American Psychological Association, 2012; Galvin & Sadowsky, 2012; Geldmacher & Kerwin, 2013).

It is critical to convey to individuals who have been found to have cognitive impairment in either KAER Step 1 or Step 2, and their families that there is an important distinction between detecting cognitive impairment and diagnosing dementia. As noted earlier, many studies have shown that only modest proportions of primary care patients who are found to have cognitive impairment and whose physician recommends a diagnostic evaluation actually follow through on the recommendation (Boustani et al., 2005; Fowler et al., 2015; Harris et al., 2011; McCarten et al., 2012). Adopting the health care triad perspective (Fortinsky, 2001), it is highly likely that reasons for the low rate of diagnostic evaluation include factors related to individuals with cognitive impairment, family members, and PCPs. Other factors that may account for low diagnostic evaluation rates among those found to have cognitive impairment include the lack of available specialists to conduct full diagnostic evaluations, as well as long waiting times for appointments with specialists, even in areas where they are available (GSA Workgroup, 2015).

STEP 4—Refer to Community Resources

The fourth step in the KAER framework recommends that physicians should refer all individuals with diagnosed dementia and their families to dementia-capable community resources to learn more about the condition and how to prepare for the future with a dementia diagnosis. Diagnosing physicians should also initiate a care plan for patients with diagnosed dementia, documenting how ongoing medical management of comorbidities will be done, how progression of dementia-related neuropsychiatric symptoms will be monitored, and how referrals will be made to community resources.

In this context, it is important note that many of the nonphysician care providers discussed in this article are also the providers of dementia-capable services to whom physicians should refer older individuals with diagnosed dementia and their families. Indeed, if recommendations from this article are adopted, organizational relationships between physicians and the health systems they work in, on the one hand, and nonphysician care providers on the other hand, will strengthen and develop two-way referral and communication pathways. From a person-centered perspective, action on Step 4 of the KAER framework is required if the full value of earlier steps in the framework is to be realized and translated into positive health-related outcomes for individuals living with dementia and their family caregivers.

Published Dementia Care Guidelines that Support Involvement of Nonphysician Care Providers in Detection of Cognitive Impairment and Referral for Diagnostic Evaluation

Many international, national, and state organizations, professional associations, and advocacy organizations have published dementia care guidelines that emphasize the importance of increasing detection of cognitive impairment and diagnosis of dementia. Most of the guidelines focus on the role of physicians and public information initiatives in achieving these objectives, but a few published dementia care guidelines also support a role for nonphysician care providers in detection of cognitive impairment.

A recent analysis of dementia care guideline documents that were published in the United States and other countries identified 13 documents that include guidelines and practice recommendations for detection of cognitive impairment (Wiener et al., 2016.) One of these guideline documents, the Alzheimer's Association's 2009 *Dementia Care Practice Recommendations for Professionals Working in a Home Setting*, includes a practice recommendation for involvement of nonphysician care providers in detection of signs and symptoms of cognitive impairment:

> "Studies have shown that the signs of early dementia are subtle…. Direct care providers need training not only to recognize the signs but also to understand when and how to communicate changes to supervisors, discuss observations with the home care team, or consult with an external expert" (Alzheimer's Association 2009).

As of early 2017, 28 Alzheimer's State Plans included provisions to support early detection and diagnosis. Although most of the state plan provisions were directed to physicians, a few focus on the role of nonphysician care providers in detection of cognitive impairment (Alzheimer's Association, 2017). For example, the 2014 Georgia Alzheimer's Disease and Related Dementias State Plan includes the following action step:

> Develop a strategic plan that supports faith- and community-based organizations in their efforts to provide early detection, education, and resources for individuals and families experiencing symptoms of memory loss and dementia. Make training programs available for all

> faith- and community-based organizations. (Georgia Alzheimer's Disease and Related Dementias State Plan Task Force, 2014).

The Georgia State Plan goes on to emphasize that only physicians can make a diagnosis, that detection of cognitive impairment is only the first step, and that "If a reason for possible concern is detected, individuals are strongly encouraged to see a physician who specializes in the diagnosis of Alzheimer's and related dementias." (Georgia Alzheimer's Disease and Related Dementias State Plan Task Force, 2014).

In 2016, the Alzheimer's Association National Plan Care and Support Milestone Workgroup recommended allocation of "funds to educate primary care physicians, other health care providers *and community workers* about the importance of timely detection of cognitive impairment, applying the appropriate diagnosis, and disclosing cognitive status to the patient and their key family and friend caregivers" (Borson et al., 2016).

In 2013, the National Task Group on Intellectual Disabilities and Dementia published Practices Consensus Recommendations for the Evaluation and Management of Dementia in Adults with Intellectual Disabilities (Jokinen et al., 2013). One of the Task Group recommendations states, as follows that:

> It is recommended that caregivers employ an early detection screening tool which can help to document the presence of certain behaviors or dysfunctions, as well as noted changes which may signal MCI or dementia, and where the data can be useful for starting that 'critical conversation' with a physician or other clinician (Jokinen et al., 2013).

The task group also developed the NTG Early Detection Screen for Dementia for use in early detection screening of adults with intellectual disability who are suspected of or may be showing signs of mild cognitive impairment or dementia. The Early Detection Screen is intended for use by "anyone who is familiar with the adult (that is, has known him or her for over six months), such as a family member, agency support worker, or a behavioral or health specialist using information derived by observation or from the adult's personal record" (National Task Group NTG-EDSD, 2013).

Finally, a 2014 document prepared for the U.S. Administration for Community Living (ACL), *Dementia-capable States and Communities: The Basics*, includes identification of people with dementia and referral to a physician for a diagnosis as one of seven components of a dementia-capable system (Tilly, Wiener, & Gould, 2014). The document comments that:

> "Providing appropriate care to people with dementia and their caregivers will not happen unless service providers can identify people with the condition. Individuals or their caregivers may contact service providers to discuss memory problems, trouble managing finances or medical care or behavior changes. Service provider staff can learn to recognize whether a person may be describing signs of cognitive problems and refer the individual for an accurate diagnosis" (Tilly et al., 2014, p. 5).

Precedents in the Roles Nonphysicians Now Play in Detection of Other Geriatric Conditions

In considering the role of nonphysician care providers in detection of cognitive impairment, it is important to acknowledge the accepted role of such care providers in detecting other health-related issues for older adults. Ample evidence has been published demonstrating willingness and usefulness of engaging nonphysician care providers in detection of other syndromes and health problems in older adults. For example, there is an extensive literature and numerous toolkits are now available to detect fall risk and implement fall prevention strategies for use by nonphysician providers and community-based organizations serving older adults at home (Baker et al., 2005; Brown et al., 2005; Fortinsky et al., 2008; National Center for Injury Prevention and Control, 2015; Stevens & Phelan, 2013). Nurses, and care managers working for publicly funded home and community-based service programs in lieu of nursing home admission, as well as home health nurses, have been successfully trained to detect depressive symptom severe enough to warrant treatment (Bruce et al., 2011; Ciechanowski et al., 2004; Delaney et al., 2013; Quijano et al., 2007). These initiatives set important precedents for actively engaging the nonphysician workforce providing health and social services to community-dwelling older adults in the detection of health problems that threaten independent living. It is very timely to consider how best to engage these nonphysician providers in the detection of cognitive impairment in older adults with whom they come into contact on a daily or otherwise frequent basis.

Research and Demonstration Projects that Involve Nonphysician Care Providers in Detecting Cognitive Impairment

Some of the dementia care guidelines noted earlier led to research and demonstration projects that involved nonphysician care providers in detecting cognitive impairment. Building on recommendations from the 2014 document, *Dementia-capable States and Communities: The Basics* (Tilly et al., 2014) and earlier discussions among ACL staff, its National Alzheimer's and Dementia Resource Center (NADRC), and states that had received ACL grants to improve dementia care and services, several states have developed and provided training for nonphysician state agency staff to help them identify individuals with possible cognitive impairment so they can make appropriate

referrals for care and services. The Minnesota Board on Aging, for example, created and delivered web-based video training designed to help nonphysician staff of the State's Aging and Disability Resource Centers (ADRCs) identify people with possible dementia and their care partners over the phone, including how to recognize concerns about memory loss and cognitive issues (Minnesota Board on Aging, 2013). Other examples of ACL-funded projects that include training for nonphysicians to detect cognitive impairment include the following:

- A Washington State project to improve the "dementia capability" of the state's ADRCs: the project included staff training for nonphysician ADRC staff to help them identify individuals with cognitive impairment, refer the individuals to a physician for a diagnostic evaluation, and connect the individuals to appropriate community services (National Alzheimer's and Dementia Resource Center, 2014b).
- A Nevada State project to create a dementia-capable system with Single Entry Point/No Wrong Door access to appropriate community services: the project included development of an assessment process that nonphysician staff in the State's Single Entry Point/No Wrong Door program can use to identify people with cognitive impairment and training for staff to use the process (National Alzheimer's and Dementia Resource Center 2014b).
- A Florida agency consortium project to train "community scouts," including nonphysician care providers and others who work with the public to identify persons with cognitive impairment who are living alone and refer them for diagnosis and community services (National Alzheimer's and Dementia Resource Center, 2014a).

Reports on these ACL-funded projects have not yet been published, but the training procedures they developed may be useful for other states and agencies that want to train nonphysician care providers to detect cognitive impairment in older adults.

The 10/66 Dementia Research Network supported research projects in Brazil and India that used community health workers to identify older adults with cognitive impairment consistent with possible dementia. The community health workers received several hours of training before visiting older adults in their homes. Diagnostic evaluations conducted later by physicians found that half to two-thirds of the older adults identified by the community health workers as having cognitive impairment in fact had dementia. Most of those who were not diagnosed with dementia were found to have major psychiatric disorders that accounted for their cognitive impairment (Jacob, Senthil Kumar, Gayathri, Abraham & Prince, 2007; Ramos-Cerqueira, 2005; Shaji, Arun Kishore, Lal, & Prince, 2002)

Lastly, Zimmerman and colleagues (2007) evaluated the ability of direct care workers in 14 residential care facilities in North Carolina to identify cognitive impairment consistent with dementia in residents who did not have a dementia diagnosis. The direct care workers were trained to use a 9-item form that asks the worker to evaluate the resident's memory, awareness of surroundings, understanding and decision-making, and dressing performance. To answer the questions, direct care workers could use their own knowledge of the resident, notations in the resident's medical record, and interviews with other staff and the resident's family. The residents also received a diagnostic evaluation from a neurologist. Comparison of the conclusions of the direct care workers and the neurologists indicated that the direct care workers identified only about half of the residents who later received a dementia diagnosis, but they correctly identified most of the residents who did not have dementia. The researchers conclude that additional training for the direct care workers could be useful.

Involving Nonphysician Care Providers in Encouraging Older Adults with Cognitive Impairment to Obtain a Diagnostic Evaluation and Helping Older Adults with a Dementia Diagnosis to be Aware of and Understand the Diagnosis

In addition to helping with detection of cognitive impairment, nonphysician care providers can also encourage older adults with cognitive impairment and their families to obtain a diagnostic evaluation for the older adult and support awareness and understanding of the diagnosis. This article addresses a wide array of nonphysician care providers, including, as noted earlier, individuals who work in ADRCs, area agencies on aging, information and referral agencies, senior centers, senior housing, personal care homes, assisted-living facilities, nursing homes, home health agencies, homemaker and personal care agencies, care management agencies, adult day centers, pharmacies, and public health and community nursing agencies. Self-employed geriatric care consultants, family counsellors, and home care aides are also included. The amount and kinds of help such care providers can offer to encourage older adults with cognitive impairment to obtain a diagnostic evaluation and to support awareness and understanding of the diagnosis clearly varies, depending on their authorized scope of practice and training and relevant policies and procedures of their agency or care setting.

Despite years of public information campaigns urging older adults to talk to their physician about concerns they may have about their memory and cognition, available data indicate that many older adults do not tell a physician about such concerns. Results from the 2011 Behavioral Risk Factors Surveillance System (BRFSS) survey show, for example, that 13% of adults age 65 and older reported that they experienced "confusion or memory loss that is happening more often or is getting worse," but less than 20% of those older adults reported that they discussed these

problems with a physician or other health care professional (Adams, 2016). Likewise, as noted at the beginning of this article, available data show that older adults whose physicians recommend a diagnostic evaluation often do not follow through on that recommendation. Results from four studies indicate that almost half (48%) to almost three-quarters (72%) of older adults did not follow through on physician recommendations to obtain a diagnostic evaluation (Boustani et al., 2005; Harris et al., 2011; Fowler et al. 2015; McCarten et al., 2012). These data point to several important ways in which nonphysician care providers can support the transition from early awareness of cognitive impairment to diagnosis of dementia, if any. When a nonphysician care provider becomes aware of an older adult's concerns about memory and cognition or concerns of family members about the older adult's cognition, the nonphysician care provider can urge the older adult and/or family to express these concerns to the older adult's physician. Similarly, when a nonphysician care provider becomes aware that an older adult has not followed through on a physician recommendation for a diagnostic evaluation, the nonphysician care provider can encourage the person and the person's family to obtain such an evaluation. These efforts do not ensure that older adults living with dementia have a diagnosis of the condition, but they do increase the likelihood of that outcome.

Other data show that the majority of older adults who have a dementia diagnosis and many of their families are not aware of or do not understand the diagnosis. One of the Healthy People 2020 program goals is to decrease the proportions of persons who have a dementia diagnosis and their families that are not aware of the diagnosis. Baseline data from responses of older adults and their families to a national survey and Medicare claims data for the period from 2007 to 2009, show that 65% of persons who had a dementia diagnosis or their families were not aware of the diagnosis (Centers for Disease Control and Prevention, 2017). These data do not distinguish awareness by the older person versus awareness by the family, but another study of older veterans with a dementia diagnosis and their family caregiver found that three-quarters of the older veterans were not aware of their dementia diagnosis. In contrast, almost all the family caregivers were aware of the diagnosis (Bradford et al., 2011). Clearly, to the extent that nonphysician care providers are informed about dementia diagnoses, they can encourage the older adult and family to talk with the diagnosing physician. The care provider can also offer print and online sources of additional information as appropriate.

Conclusion and Practice Recommendations

The preceding discussion suggests there is much room for improvement in detection of cognitive impairment and diagnosis of dementia. Some of the needed improvement, especially with respect to conducting diagnostic evaluations, requires changes in physician practices. However, the discussion also indicates opportunities for improvement that could build on the frequent interactions and trusting relationships among many older adults, their families, and nonphysician care providers. As discussed earlier, care providers could help to increase detection of cognitive impairment, encourage older adults and their families to express concerns about the older adult's cognition to the older adult's physician, and encourage them to follow through on physician recommendations to obtain a diagnostic evaluation, all of which could support increased diagnosis of dementia.

The KAER framework can be used to help nonphysician care providers understand physician practices in detection of cognitive impairment and diagnosis of dementia. In July 2017, the Gerontological Society of America (GSA) released a toolkit with assessment instruments and other materials physicians can use to implement the KAER steps, including key messages for talking with older adults and families about cognition, cognitive impairment, and dementia; videos for older adults and families; and online materials physicians may want to call to the attention of their older adult patients and patients' families. Many of these materials may also be useful for nonphysician care providers. The toolkit is available free on the GSA website at https://www.geron.org/programs-services/alliances-and-multi-stakeholder-collaborations/cognitive-impairment-detection-and-earlier-diagnosis.

Finally, as noted earlier, many of the nonphysician care providers discussed in this article are also the providers of dementia-capable services to whom physicians should refer older individuals with diagnosed dementia and their families. If recommendations from this article are adopted, organizational relationships between physicians and the health systems they work in, on the one hand, and nonphysician care providers on the other hand, will strengthen and develop two-way referral and communication pathways and increase the likelihood that older adults living with dementia and their families will receive the valuable dementia services and supports described in other articles in this journal issue.

Practice Recommendations

The seven practice recommendations listed below are intended to promote the involvement of nonphysician care providers in kickstarting the cognition conversation, detecting cognitive impairment, supporting older adults with cognitive impairment to obtain a diagnostic evaluation, and helping them and their families be aware of and understand a dementia diagnosis.

1. *Make information about brain health and cognitive aging readily available to older adults and their families*. Within their scope of practice and training, nonphysician care providers who work with older adults and their families in community or residential care settings should either talk with them or refer them to other

experts for information about brain health, changes in cognition that commonly occur in aging, and the importance of lifestyle behaviors and other approaches to maintain brain health. They should suggest print and online sources of additional information as appropriate.

2. *Know the signs and symptoms of cognitive impairment, that signs and symptoms do not constitute a diagnosis of dementia, and that a diagnostic evaluation is essential for diagnosis of dementia*. All nonphysician care providers who work with older adults in community or residential care settings should be trained to recognize the signs and symptoms of cognitive impairment. They should be trained that signs and symptoms are not sufficient for a diagnosis of dementia and that a diagnostic evaluation must be conducted by a physician who can make the diagnosis.
3. *Listen for concerns about cognition, observe for signs and symptoms of cognitive impairment, and note changes in cognition that occur abruptly or slowly over time*. Depending on their scope of practice, training, and agency procedures, if any, nonphysician care providers who work with older adults in community or residential care settings should listen for older adults' concerns about dementia and observe for signs and symptoms of cognitive impairment and changes in cognition. As appropriate and in accordance with agency procedures and respect for individuals' privacy, nonphysician care providers should communicate with coworkers about observed signs and symptoms, changes in cognition, and concerns of older adults and family members about the older adult's cognition. Depending on their scope of practice and training, they should encourage the older adult and family to talk with the individual's physician about the signs and symptoms, changes in cognition, and older adult and family concerns.
4. *Develop and maintain routine procedures for detection of cognition and referral for diagnostic evaluation*. Administrators of organizations that provide services for older adults in community or residential care settings and self-employed care providers should develop and maintain routine procedures for assessment of cognition. They should, at a minimum, maintain an up-to-date list of local memory assessment centers and physicians, including neurologists, geriatricians, and geriatric psychiatrists, who can provide a diagnostic evaluation for older adults who do not have a primary care physician or have a primary care physician who does not provide such evaluations. Ideally, nonphysician care providers and organizations that work with older adults should partner with physicians, health plans, and health care systems to establish effective referral procedures to ensure that older adults with signs and symptoms of cognitive impairment can readily receive a diagnostic evaluation.
5. Use a brief mental status test to detect cognitive impairment *only if*:
   - such testing is within the scope of practice of the nonphysician care provider, and
   - the nonphysician care provider has been trained to use the test; and
   - required consent procedures are known and used; and
   - there is an established procedure for offering a referral for individuals who score below a pre-set score on the test to a physician for a diagnostic evaluation.
6. *Encourage older adults whose physician has recommended a diagnostic evaluation to follow through on the recommendation*. Within their scope of practice, training, and agency procedures, if any, nonphysician care providers who work with older adults in community or residential care settings and are aware that an older adult's physician has recommended a diagnostic evaluation should encourage the older adult and family, if appropriate, to follow through on the recommendation. They should talk with the older adult and family about the reasons for and importance of getting a diagnostic evaluation and provide print and online sources of additional information.
7. *Support better understanding of a dementia diagnosis*. Within their scope of practice, training, and agency procedures, if any, nonphysician care providers who work with older adults in community or residential care settings and are aware that the older adult has received a dementia diagnosis but does not understand the diagnosis (or the older adult's family does not understand the diagnosis) should encourage the older adult and family to talk with the diagnosing physician. The care provider should also offer print and online sources of additional information as appropriate.

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Conflict of Interest

None reported.

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