

# DIMENSIONS

UNIVERSITY OF WASHINGTON ALZHEIMER'S DISEASE RESEARCH CENTER ■ SPRING 2007

## SPOTLIGHT ON RESEARCH



### RESEARCHERS FIND SCREENING TOOL SUPERIOR TO PRIMARY CARE PHYSICIANS AT DETECTING DEMENTIA

*By Cheryl Dawes*

The sooner dementia symptoms in older adults are detected, the sooner they can be addressed. However, physicians often fail to recognize the first signs of problems with thinking and memory in their older adult patients.

In a recent study, ADRC researcher Dr. Soo Borson and her colleagues showed how a simple screening tool called the Mini-Cog could be used to improve detection of dementia in primary care settings. The researchers compared the accuracy with which primary care physicians recognized cognitive impairment in their patients and the accuracy of the Mini-Cog in identifying cognitive impairment in those individuals.

"I'm an advocate for routine cognitive screening in primary care for older adults," says Borson, professor of Psychiatry and Behavioral Sciences. "Screening is a way to increase physicians' recognition of cognitive impairment, though by itself it doesn't

tell physicians what to do about it."

Much of Borson's research is aimed at answering questions that contribute to improving dementia care policy for the world's aging population. Better detection may lead to better management and outcomes for patients and their families, she notes.

Results of the study, which involved 371 older adults, showed that the Mini-Cog correctly identified cognitive impairment in 83 percent of the group, whereas the physicians correctly identified cognitive impairment in 59 percent.

The Mini-Cog was particularly sensitive at identifying cognitive impairment at its mildest levels. For individuals with very mild dementia or 'mild cognitive impairment,' the Mini-Cog recognized impairment in 58 percent, compared with 6 percent recognition by the physicians. In cases of mild dementia, the Mini-Cog was more

than twice as sensitive at detection as the physicians—92 percent compared with 41 percent.

The Mini-Cog is a brief screening instrument that consists of a three-item recall of spoken words and a clock-drawing task, explains Borson. She and others developed the screening tool and first published it in 2000. They have since validated the effectiveness of the Mini-Cog to detect cognitive impairment in a range of different older adult populations. The Mini-Cog is scored with a system of points ranging from 0-5. A score in the range of 0-2 indicates a high likelihood of dementia and a score in the range of 3-5 suggests a low likelihood.

Study participants were a sample of older adults enrolled in a multi-ethnic research registry, designed to over-represent ethnic minorities relative to the population of the Pacific Northwest. The participants were recruited through community screening

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Box 358733 - Seattle, WA 98195

[www.uwadrc.org](http://www.uwadrc.org)

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colcott@u.washington.edu*

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### SCREENING TOOL

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and referrals from social service agencies. None of the participants was referred by their primary care physician, although each had a primary care physician, and gave Dr. Borson's research team permission to obtain copies of their medical records.

To determine primary care physicians' recognition of cognitive impairment, Borson and her colleagues conducted an extensive structured review of the medical records provided by each participant's physician. The researchers systematically examined the records for documentation of suspected or diagnosed symptoms.

Each participant was assessed with the Mini-Cog as well as a more detailed cognitive assessment in his or her primary spoken language. A cognitive history was obtained for each participant by interviewing a family member or close friend. In addition, Dr. Borson's team completed a detailed medical history and examination for each participant. Diagnoses of dementia and other cognitive problems followed standard research criteria.

The sample population in the study was an expansion of a smaller, but similar sample that Borson studied when developing the Mini-Cog. "We initially developed the Mini-Cog as a tool for screening a population whose

symptoms of dementia might be difficult to identify because of differences in language and cultural norms. Existing screens relied heavily on educational backgrounds and language use that do not necessarily apply in a particular population," says Borson. "Our goal was to develop a screen that was compatible with the current understanding of dementia in Western scientific culture, but that could be applied more broadly."

The various settings in which the Mini-Cog is being used suggest it does have broad applicability. According to Borson, the American Geriatrics Society has included the Mini-Cog as one of the recommended screening tools in their manual "Geriatrics At Your Fingertips." It is currently being studied as a screen for delirium risk in hospitals. A Veterans Affairs study found that the Mini-Cog was useful in identifying low health literacy in veterans awaiting surgery. Additionally, a pharmacy-related study used the Mini-Cog to help determine which patients were likely to have difficulties managing medications after hospital discharge.

*The results of Borson's comparison study are published in the International Journal of Geriatric Psychiatry, volume 21, March 2006. Borson's co-authors on the study are UW researchers James Scanlan, Jill Watanabe, Shin-Ping Tu and Mary Lessig. ♦*

# STRANGE NEW WORLD: When Persons with Dementia Must Visit the Hospital

## PART 2

By Thomas Orton

*This is Part Two of a two-part article. Part One appeared in the previous issue of DIMENSIONS (Winter 2007).*

Dementia alone sometimes seems more than anyone should have to cope with. But as the person you care for ages, the day may come when a routine checkup reveals an unexpected problem – a dangerously clogged artery, a spot on an x-ray – a condition that results in a trip to the hospital. Part One of this article discussed some of the preliminaries in preparing for a hospital stay, and Part Two continues by examining issues to consider once the visit is underway.

A hospital stay can cause or increase disorientation. One Alzheimer's sufferer, for example, was hospitalized for bypass surgery but believed she was still at home. Cheerfully she invited each of the hospital staff to stay the night, insisting, "We have plenty of clean towels." It is more common that the person won't recognize their surroundings or remember why they are there. They may become frightened and agitated. They may try to run away or become combative with staff

providing care. Keep doctors and nurses apprised of any change in the level of confusion that you notice in the one you care for.

If a hospital trip is prompted by a long illness, the person in your care may already be weak and vulnerable, possibly in a wheelchair or bedridden. As check-in time approaches, watch for changes in mood, sleep habits, or appetite which could be signs of depression. If you suspect your family member is depressed, notify the doctor, so he or she can evaluate whether treatment with an antidepressant might be appropriate.

Depression and disorientation are serious, but there is an even worse problem to consider. A hospital stay for dementia sufferers often results in delirium. Signs of delirium may even be apparent at admission, but they are easy to miss – even medical professionals don't always recognize them. If the patient is taking powerful pain drugs, for instance, or is on a ventilator, he or she may not be able to communicate and the signs of the delirium might be overlooked. Or, the symptoms might simply be mistaken for those of dementia.

The seriousness of delirium can't be overstated. Delirium can be caused by a serious medical problem or medication reaction. It can result in a longer hospital stay, transfer to a nursing home, and a decline in overall health. It can even hasten death. Tell someone in charge that you know the risks of delirium and are concerned. Because you know the patient best, the hospital staff may rely on you to warn them if the person you care for:

- becomes suddenly withdrawn
- is unable to focus on one thing for long
- keeps glancing nervously around the room
- murmurs to him- or herself
- becomes unusually drowsy
- begins having hallucinations

These symptoms usually come on suddenly over a period of days or even hours. If they do, remember that you are experiencing them for the first time too, and it may be a shock, especially if the person you care for is someone close to you. Prepare yourself for completely unexpected behavior. One man in his sixties, for

*continued on page 5...*

## Q & A: Early-Onset Alzheimer's Disease and Driving

By Cat Olcott



**Question:** My mother, at 63, has been diagnosed with early-stage Alzheimer's disease. She is still driving herself on errands, to appointments, and to meet with friends but she suffers from short-term memory loss. She has said that she is willing to give up driving "when the time is right." How will we know when that time has come, or has it come? What signs should we look for? The family is divided on how to handle this sensitive issue.

**Answer:** Unfortunately there is no simple answer to your question. Those with early-stage Alzheimer's disease (AD) may be currently experiencing only mild impairment. They can still be working and need only minimal assistance with certain activities of daily life. Individuals in this stage are often concerned about their diagnosis, so this can be a good time to start the conversation about when it may become necessary to limit or stop driving.

Giving up driving is a difficult and life-altering transition for anyone. Fear of isolation and loss of freedom are big issues for those diagnosed with AD. Families and caregivers may hesitate to suggest that the loved one curtail driving for fear that it will create conflict, par-

ticularly if the person with AD does not feel their driving has become unsafe. Caregivers may also be concerned about how they will juggle the increased responsibilities of having to help their loved one get to his or her appointments and activities.

Opinions are divided as to the emotionally charged issue of Alzheimer's and driving. Some say that driving should be curtailed as soon as a diagnosis is made. Others feel that for most individuals, "easing" the transition by monitoring the person's actual driving ability and gradually restricting driving to familiar roads or conditions is a more reasonable approach. However, it's imperative to realize that driving is a complex activity that requires split-second decision making. Even the best driver is faced with challenging situations on the road. Diminished judgment due to slower reaction times, distractibility, changes in vision or motor coordination skills, trouble with predicting upcoming traffic problems, or side effects of medications are tremendous safety concerns. Look at controllable issues such as updating an eyeglass prescription or

making sure your mom's car seat and mirrors are positioned properly (and that her car is in good working order). The decision to avoid driving in more dangerous situations – at night, at dusk and dawn, in inclement weather, during peak traffic times, and at high speeds (i.e. freeway driving) – will put everyone's mind more at ease.

You should regularly ride with your mother in her car and observe her driving. Specific signs that can indicate that driving skills have diminished include:

- becoming disoriented or lost on familiar routes,
- driving too slowly or too fast,
- trouble reading or obeying traffic signs,
- failing to use turn signals – or leaving them on without changing lanes,
- increased anxiety, confusion or anger with other drivers,
- exhaustion after a seemingly simple trip
- "dings" on bumpers or garage doors,
- and of course, close calls, warnings, tickets.

Family members do not always agree about whether a loved one needs to curtail his or her driving. It can be helpful if you keep a diary of your impressions about your mom's driving ability, based on actual observations and on what she or other persons in the

The websites below offer a variety of information on driving and dementia.

- Alzheimer's Association: [http://www.alz.org/living\\_with\\_alzheimers\\_driving.asp](http://www.alz.org/living_with_alzheimers_driving.asp)
- "A Practical Guide to Alzheimer's, Dementia and Driving:" <http://www.thehartford.com/alzheimers/>
- The National Highway Traffic Safety Administration: <http://www.nhtsa.dot.gov/people/injury/olddrive/Alzheimers/>
  - The National Institute on Aging Alzheimer's Disease Education and Referral (ADEAR) Center: <http://www.nia.nih.gov/Alzheimers/Publications/homesafety.htm#driving>

family tell you. This written record can be a good family reference when talking about your mom's driving safety. It can also provide important information to share with your mother's healthcare provider. Some physicians will "prescribe" a driving restriction for persons with dementia. When someone who has become unsafe refuses to stop, concerned family members can also work with the person's doctor to request a driving evaluation by the local Department of Motor Vehicles.

Fortunately your mother is open to discussion. Suggesting other ways to maintain regular activities will help her retain her independence and sense of self-confidence. Include her in planning for social activities that do not require driving. Arrange for family and friends to take your mother on errands or for a pleasurable drive. Investigate public transit in your area including senior van routes. Churches, senior centers and some social service agencies offer volunteer drivers for seniors. You may be able to establish a payment account with a taxi service. Find ways of reducing the need to drive by combining trips. Groceries and even prescriptions can be home-delivered. Mail-order catalogs or ordering products online can be a fun way to stay home and shop!

Grieving the loss of independence, whether sudden or more gradual, is natural. Patience and knowledge are instrumental in keeping everyone involved focused on the self-respect of the loved one with AD and the safety of those on the road. ♦

## **STRANGE NEW WORLD, Part 2**

*...continued from page 3*

example, experienced delirium after admission to the hospital for surgery. He grew frantic, begging his wife to save him from his doctors who, he was sure, were planning to murder him and bury him with other bodies he seemed to see in the x-ray room.

When it comes to delirium, it is important not to let down your guard, even when the procedures are completed and you are heading home. Many dementia sufferers who develop delirium end up back to the hospital within a month. This return trip is often tied directly to mental confusion caused by medications – particularly pain killers, anti-depressants, sleeping medications, and anti-anxiety drugs – that may have been started during the hospital stay. At checkout time, ask the physician if any of these can be discontinued, taken in a lower dose, or used only on an as-needed basis. Ask about non-drug alternatives. These have proven extremely effective and include the following:

- If possible, talk with the one you care for about news stories, or do simple word games or crossword puzzles several times a day. Make sure that eyeglass prescriptions are up

to date and hearing aids work to insure clear and complete communication.

- If the dementia sufferer still gets around, help him or her with stretching and range-of-motion exercises twice daily.
- Insure that the person you care for gets a long period of uninterrupted sleep each night; if necessary use non-drug sleep aids such as herbal teas, massages, warm milk or relaxation tapes.
- Make sure the one you care for gets plenty of water daily.

Besides asking about medications at check-out time, be sure to find out about changing wound dressings and dietary restrictions. Ask what you can expect with regard to pain and recovery time, or if a temporary in-home nurse might be advisable. Make sure hospital staff understand what you and your relative can (or can't) handle with regards to home care.

At home, without hospital staff, the burden of care shifts back to you. Share the responsibility by getting family and friends involved. Give yourself breaks – don't be shy even about asking neighbors to sit while you go out. You'll be surprised, not only at the generosity of others, but at how a brief indulgence of personal time will do wonders for your attitude and restore your inner resources. ♦

Dr. Soo Borson is Professor in the University of Washington Department of Psychiatry and Behavioral Sciences. She is also Director of the University of Washington Memory Disorders Clinic, and head of the ADRC Satellite Core, which focuses on aging and dementia in minority populations. Dr. Borson received her medical degree in 1969 from Stanford University, and completed her residency and geropsychiatry fellowship at the University of Washington.

Dr. Borson's early career developed at the Seattle Veteran's Administration Medical Center (VAMC) geropsychiatry unit, where she was particularly interested in the relationship between chronic medical illness, depression, and functional disability. Recognizing that in older adults, chronic illness and depression were often accompanied by cognitive decline, she began what has become a life-long effort to educate herself about the brain: what causes progressive brain disease, how do you recognize and evaluate it, and what we can do to make a difference. Says Borson, "I feel very certain that whatever I do needs to have a payoff for patients. As much as I love scientific inquiry, what really matters is trying to improve patients' lives."

Dr. Borson's current work includes a combination of clinical, research, and teaching activities.



## MEET SOO BORSON

By Susan M. McCurry

She greatly enjoys helping primary care physicians and general psychiatrists as well as medical trainees become interested in taking care of older persons. As described in the research article featured in this issue of Dimensions, Dr. Borson was the creator of the Mini-Cog, a brief cognitive screening instrument that was developed for use in primary care and designed to be more culture-free than previous, more lengthy, cognitive assessment tools.

"I am really proud that the Mini-Cog has been used in clinical trials and epidemiological studies both in the United States and Europe as a simple way to identify cognitive impairment in diverse populations," says Borson. Dr. Borson has also piloted the use of Cooperative Dementia Care Clinics (CDCC) at the University of Washington, which is a model of care in which persons with dementia and their family members meet in small groups that provide a combination of social support and education, as well as a group forum to discuss ongoing routine medical care issues. More recently, Dr. Borson has become interested in evaluating how screening for cognitive impairment in primary care settings can lead to better referral and medical management of persons at risk for developing

dementia. She says, "I continue to take tremendous pleasure from solving complicated clinical riddles."

When Soo is not at work she enjoys yoga, cooking, reading books, and getting together with friends. She has two sons and three beautiful granddaughters (including twins!) who are a great source of joy and satisfaction. ♦

## Introducing... Let Experience Speak

*Let Experience Speak* is a new column designed to give you, the caregiver, the opportunity to share helpful ideas, tips, and hints that may enrich another's caregiving experience.

Have you discovered a new way of doing the same old thing that has made a difference in the quality of life for you or the one you care for?

Has an observation or experience led you to seek advice that could be helpful if shared with another?

Have you found a great way to help bolster yourself in a difficult situation? A way to head off a particular pitfall or difficult/dangerous situation? Ways to create moments of happiness for your loved one or patient? Hints on strategies to deal with stress or weariness?

Submissions should be limited to 350 words and focus on day-to-day activities experienced as a caregiver of someone diagnosed with Alzheimer's disease. Inquiries or submissions may be sent to [colcott@u.washington.edu](mailto:colcott@u.washington.edu) or by mail to: Dimensions - University of Washington, Box 358733 Seattle, WA 98195.

*Please include an e-mail address or phone number in any correspondence.*



**University of Washington  
School of Nursing  
Research Study**

*Are you caring for someone with memory loss who has sleep problems?*

**The NITE-AD Study**

*may be able to help.*

**What is the NITE-AD Study?**

- The NITE-AD Study is a research program funded by the National Institute of Mental Health. It offers 4 different treatment programs that may help with nighttime sleep and behavior problems in people with memory loss. The goal of the study is to determine which treatment works best. The treatments do not prescribe medications and there is no charge to participate in this study.

**Who can participate?**

- People with sleep problems and a diagnosis of dementia or severe memory problems and their caregivers are eligible to participate.

**What will happen if I participate?**

- Patients and their caregivers are randomly assigned to one of 4 treatment groups. A therapist visits the patient and caregiver at home for either 3 or 6 one-hour appointments. The patient and caregiver are interviewed 3 times over a 6-month period. Each interview lasts one hour and all visits are done in the home.

**How will I benefit?**

- Treatment may improve patients' sleep and behavior problems. Caregivers may benefit from education, which helps them understand more about caring for someone with memory loss. Participants will be making an important contribution to research seeking to treat sleep and nighttime problems in persons with dementia.

*To find out more please call the Study Coordinator at 206-616-5550 or toll free 1-866-292-4464.*

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**Seeking Families  
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The Genetics Program at the University of Washington Alzheimer's Disease Research Center is collaborating with other Alzheimer's Disease Research Centers on a new initiative sponsored by the National Institute on Aging to better understand genetic factors in late-onset familial Alzheimer's Disease. Families are being sought with two or more living affected individuals with onset of dementia at age 60 or later. Participation would involve a phone interview, review of medical records, and a blood sample.

*For further information, please contact Malia Rumbaugh at 206-277-6645, or toll free 800-821-7967, or email maliarum@u.washington.edu.*

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**Surviving the Symptoms  
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Monday, June 18, 2007  
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This workshop provides hands-on practical tools for family caregivers coping with the middle stages of Alzheimer's disease or dementia. The basics of dementia, deciphering difficult symptoms, communication challenges and planning for the future will be covered.

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Health Branch, Division of Nutrition  
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