

## Questionnaire Tops Other Mood Evaluations

BY HEIDI SPLETE  
Senior Writer

WASHINGTON — A nine-item questionnaire of self-reported symptoms was more reliable and efficient than the widely used Geriatric Depression Scale and the Minimum Data Set 2.0 scale at assessing mood disorders in nursing home patients, according to a study in 71 facilities across eight states.

Accurate detection of mood disorders in the long-term care population remains a constant challenge, said Dr. Debra Saliba, who is a geriatrician at the University of California, Los Angeles, and the director of the Borun Center for Gerontological Research there. She reported the results at the annual meeting of the American Geriatrics Society.

Identifying depression in nursing home patients is important, she emphasized, because the condition is associated with poor functional status; increased perception of pain; stress; suicide; and increased need for medical services. "In fact, a disproportionate number of successful suicides occur in people over the age of 65," said Dr. Saliba.

Treating depression can be effective in reducing poor outcomes in long-term care residents, but depression often goes unnoticed in this population. There are several screening tools for mood disorders in use, but they have not been compared with one another or to any validated psychiatric-assessment tool, Dr. Saliba explained.

The new study compared the effectiveness of the nine-item Patient Health Questionnaire (PHQ-9), the Geriatric Depression Scale (GDS), Minimum Data Set version 2.0 (MDS 2.0) assessment by staff, and one of two validated tools for identifying mood disorders in a long-term care population.

The GDS was designed for older adults and has become a geriatric standard—this study used the newer version of the test, which is made up of 15 yes/no questions—but other studies have suggested that the test may be overly influenced by somatic symptoms when individuals answer questions such as, "Have you stopped many of your activities and interests?" without being able to elaborate.

By contrast, PHQ-9 questions prompt open-ended responses to topics including sleep problems, feeling bad about oneself, and having trouble concentrating. The tool may be ad-

ministered either as a self-reported survey or as part of an interview. The MDS 2.0 observer-rated scale avoids an interview or self-report.

"Some people have said that the PHQ-9 is too symptom driven or too complicated," Dr. Saliba said, leading to questions of the survey's validity for assessing mood disorders in frail old people.

She and her associates selected 418 nursing home residents who were scheduled to receive mandatory MDS 2.0 assessments. Nearly half of the study participants were older than 85 years.

In addition to the MDS 2.0 assessment for each resident, one nurse administered the PHQ-9 and GDS, and a second nurse administered either the modified Schedule for Affective Disorders and Schizophrenia (mSADS) or the Cornell Scale for Depression.

The Cornell tool was used for residents whose cognition was too low to allow assessment by mSADS, but both of these tests are validated, standard

tools, said Dr. Saliba.

About 80% of study participants were assessed by at least one of the screening tools as well as one of the validated tools. Overall, the GDS screen found 41% of residents with probable depression, PHQ-9 found 42%, and MDS 2.0 found 17%.

When the investigators used a measure of agreement adjusted for chance (kappa scores), the PHQ-9 had significantly higher agreement with the validated standard than either the GDS or the MDS 2.0 did. In fact, the MDS 2.0 assessment was less accurate than if the results had happened by chance, Dr. Saliba said.

"Contrary to the expectations of many, the PHQ-9 did not lead to more classification with depression," Dr. Saliba said.

Not only was the PHQ-9 tool more accurate than the GDS screen, but it also took less time to complete: 4.9 minutes for the PHQ-9 vs. 11.4 minutes for the GDS.

Most of the residents, including the large number with cognitive impairment, could complete the PHQ-9, said Dr. Saliba.

The findings suggest that standardized mood assessment of older adults could be performed more effectively with the PHQ-9 than with the GDS or MDS 2.0, although more research is needed to confirm the results.

"We hadn't expected it to be quite so favorable for PHQ-9," she said. "But it is often difficult for older adults to reduce their life experiences to yes or no questions." ■

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## Depression Tied to High Vitamin D, Low Parathyroid Hormone Levels

BY MARY ANN MOON  
Contributing Writer

Both the presence and severity of depression are associated with decreased serum levels of 25-hydroxyvitamin D and increased levels of parathyroid hormone in older patients, researchers reported.

It is not yet known whether abnormal levels of 25(OH)D and PTH precede depression or are a consequence of it, they noted.

"Our findings may be of clinical relevance because the prevalence of minor depression in older persons is high (13%), and both decreased serum 25(OH)D levels and increased serum PTH levels can, in theory, be treated with higher dietary intake of vitamin D or calcium and increased exposure to daylight," said Dr. Witte J.G. Hoogendijk and his associates at the Free University Medical Center, Amsterdam.

The investigators examined the relationship between depression and these serum markers using data from the Longitudinal Aging Study Amsterdam, an ongoing population-based study of changes in mood, autonomy, and well-being among older Dutch men and women.

In a subset of 1,282 of these subjects who were aged 65-95 years, 26 were found to have

major depressive disorder and 169 were found to have minor depression.

Levels of 25(OH)D were 14% lower in people with minor depression and in people with major depression than in nondepressed people. PTH levels were 5% higher in people with minor depression and 33% higher in people with major depression than in nondepressed people, Dr. Hoogendijk and associates said (Arch. Gen. Psychiatry 2008;65:508-12).

These associations remained robust after the data were adjusted to account for several potential confounders such as gender, body mass index, smoking status, and coexisting chronic conditions. They also were not attributable to seasonal differences regarding when the assessments were done (and thus the amount of sunlight to which subjects had been recently exposed), to levels of physical activity, or to the use of antidepressants.

The importance of these results is underscored by the finding that 39% of men and 57% of women in this community-based cohort were obtaining insufficient vitamin D from their diets, including 5% of men and 7% of women who were frankly deficient in vitamin D. Only 1% of subjects were taking vitamin D or calcium supplements.

The study was supported by the Netherlands Organisation for Scientific Research. ■

## 'Use It or Lose It' Strategy Can Prevent Cognitive Decline

BY AMY ROTHMAN SCHONFELD  
Contributing Writer

CHICAGO — Older adults with normal cognition who engaged in a mental fitness program for 1 hour a day, 5 days a week for 8 weeks demonstrated significant improvements in memory and nonmemory tasks, according to data presented at the annual meeting of the American Academy of Neurology.

Gains were documented in standard neuropsychological tests that measured auditory memory, digit processing, letter-number sequencing, learning, delayed recall, and list memory, according to Dr. Kristine Yaffe, professor of psychiatry, neurology, and epidemiology and biostatistics at the University of California, San Francisco.

The randomized, double-blind trial, known as IMPACT, included 437 adults with a mean age of 75 years and Mini-Mental State Examination scores of 26 or higher. Of the total number of participants, 215 were assigned to the Brain Fitness Program, a cognitive training program designed to augment brain plasticity (Posit Science Corp., San Francisco), and 222 were assigned to an active control group that engaged in a more standard computer-based educational program. Each group underwent about 40 hours of training.

In the primary outcome measure—the Repeatable Battery for the Assessment of Neuropsychological Status [RBANS] Global Auditory Memory score—those in the experimental group demonstrated an average improvement of 3.66 points, compared with 1.30 points for those in the control group ( $P = .01$ ).

The training did not improve scores on the visual memory component of the RBANS.

In addition to the performance demonstrated on the objective test, the mental fitness buffs reported that their cognition had improved on a self-report questionnaire.

"'Use it or lose it' makes a lot of sense, but there [are] not a lot of data," said Dr. Yaffe, who is also chief of geriatric psychiatry and director of the memory disorders clinic at the San Francisco VA Medical Center.

She categorized the risk factors for dementia and cognitive decline according to whether or not they can be modified. Although age and family history are unchangeable, for example, cardiovascular disease, obesity, metabolic dysregulation, depression, and physical and intellectual inactivity are risk factors that are amenable to intervention and modification, she noted.

With these risk factors in mind, Dr. Yaffe suggested the following strategies to prevent cognitive decline and dementia:

- ▶ Screen for depression and institute effective treatment promptly.
- ▶ Reduce cardiovascular risk factors, such as hypertension, metabolic syndrome, hypercholesterolemia, diabetes, and obesity, especially during midlife.
- ▶ Prevent head trauma.
- ▶ Promote mental activity, including lifelong education.
- ▶ Encourage physical activity.

Dr. Yaffe has served as a consultant to Posit Science Corporation. Her coauthors received personal compensation for activities with Posit Science as consultants. ■