

# Guidelines Coming for Sleep Disorders in Elderly

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Sleep should be viewed as a vital sign, and primary care physicians should address sleep disturbances routinely in all visits with older adults, Dr. Harrison G. Bloom said at the annual meeting of the Gerontological Society of America.

“Although there has been more than a decade of discussion about the prevalence and low detection rates of sleep problems, little has changed in primary care practice in recognition of sleep problems in the elderly,” said Dr. Bloom of the International Longevity Center, New York.

A first draft of new guidelines for the assessment and treatment of sleep disorders in older people should be ready for discussion within the next few months, produced by his organization in collaboration with other groups, he said.

“Sleep disorders are prevalent in older individuals and have important consequences, yet very seldom are looked at. It should be a vital sign,” Dr. Phyllis C. Zee said in a separate presentation at the same session.

She and her associates interviewed older adults aged 65-102 years in 11 primary care offices in the Chicago area and compared the findings with patient charts. Although 70% of the adults complained of some sort of sleep disturbance, only 11% of charts mentioned sleep distur-

bance, even for patients who reported five or more sleep problems (such as insomnia, difficulty falling asleep, early awakening, or restless legs syndrome).

“Sleep problems are so common with aging, yet they’re not on the radar screen of most primary care physicians,” said Dr. Zee, professor of neurology and director of the sleep disorders center, Northwestern University, Chicago.

Symptoms of some treatable sleep disorders, particularly sleep apnea or rapid eye movement (REM) sleep behavior disorder, may be mistaken for cognitive decline or dementia in the elderly, she said.

Multiple factors contribute to the high prevalence of insomnia in the elderly, including medication use, comorbid medical or psychiatric conditions, and psychosocial factors such as bereavement.

An assessment of the quantity and quality of sleep should be integrated into the routine review of systems in all examinations of older adults, with further assessment to look for the causes of any sleep problems, Dr. Zee said. “Sleep in older people really is a barometer of health,” she said.

A growing database of studies directly associates sleep disorders with problems of attention and memory, depression, nighttime falls, metabolic dysfunction, and lower quality of life, Dr. Andrew A. Monjan said in the same session at the meeting.

Counter to common misconceptions, sleep distur-

bances are not a natural part of aging but are associated with comorbidities, according to an analysis of epidemiologic data on more than 10,000 adults, said Dr. Monjan of the National Institute on Aging.

A 2003 telephone poll of 1,500 older people (aged 55-84 years) randomly selected by the institute and the National Sleep Foundation also dispelled the notion that older people need less sleep. They reported needing as much sleep per night as many younger people.

People who had four or more medical problems were more likely to report getting less than 6 hours of sleep or having insomnia or excessive daytime sleepiness. Few said they had been diagnosed with insomnia by their physician, and even fewer had been treated for insomnia, he added.

People who reported bodily pain or who were obese were more likely to report sleep disturbances. The prevalence of all kinds of sleep disturbances decreased among people who reported more exercise.

A study at the University of Chicago showed that limiting sleep to 4 hours per night for 6 nights in healthy young adults produced evidence of impaired glucose clearance and increased insulin resistance, Dr. Monjan said. The proportion of people in the United States who report getting fewer than 6 hours of sleep per night increased to more than 25% in 2004. Sleep deprivation may be a contributing factor in the current epidemics of obesity and diabetes, he suggested. ■

## Lively Limbs Limit Sleep Time for Elders at Home and in Nursing Homes

BY HEIDI SPLETE  
Senior Writer

Frequent nighttime leg movements were significantly associated with sleep disturbance and less total sleep in a study of 102 elderly people with cognitive impairment.

Previous research had shown that sleep time varies from about 6 to 10 hours in nursing home residents who have moderate to severe cognitive impairment, and that this sleep is quite fragmented. But the association between periodic limb movements in sleep and total sleep time in older people with cognitive impairment hadn’t been established. The nature of the association—which emerged both among people living in nursing homes and in those in the community—remains unclear.

Kathy C. Richards, Ph.D., of the Polisher Research Institute, Horsham, Pa., and her colleagues measured sleep variables in 58 men and 44 women with an average age of 82 years. Of those, 66 people lived in nursing homes or assisted-living facilities and the rest resided at home.

The participants scored an average of 17.3 on the Mini-Mental State Examination (MMSE), in which a score of 30 signifies the highest cognitive function. The exam rated 7 people as having profound cognitive impairment, 14 with severe cognitive impairment, and 33 within the criteria for moderate cognitive impairment. The test rated 21 people as mildly impaired and 27 with early cognitive impairment. The researchers then used polysomnography to collect data on variables including leg movement, oxygen saturation, time spent in bed, total sleep time, and the apnea-hypopnea index. The team conducted the test during 1 night in each person’s usual sleep setting (Sleep 2008;31:224-30).

The study participants averaged 5.5 hours of total sleep time, ranging from less than 1 hour to nearly 9 hours. Although the average time spent in bed was 8 hours, only 67% of that time was spent sleeping, and nonrapid eye movement sleep

made up 87% of the total sleep time. The study subjects awoke an average of 34 times during the night, but only an average of 1.8 awakenings was related to leg movements.

Participants’ scores on the Periodic Leg Movement Index (PLMI) ranged from 0 to 112, with an average of 17. A total of 34 persons (33%) had PLMI scores greater than 15, which is the cutoff point for a diagnosis of periodic limb movement disorder.

Overall, people with a PLMI greater than 15 experienced significantly more minutes awake, less total sleep time and nonrapid eye movement sleep, less sleep efficiency, and a lower apnea-hypopnea index than did study participants with lower PLMI.

When the researchers controlled for multiple variables, a combination of time spent in bed, older age, and higher PLMI accounted for 44% of the study population’s variance in total sleep time.

On the other hand, the analysis found no relationship between PLMI and other sleep variables or participants’ age or MMSE scores.

The study revealed no significant difference in total sleep time between people in private homes and those in nursing homes or assisted-living facilities. “This was surprising considering the pervasive nursing care practices in nursing homes of awakening residents for incontinence and other care and the noise from other residents and staff,” the researchers noted.

“An elevated PLMI was associated with a consistent pattern of sleep disturbance, suggesting that [periodic leg movements] or other related comorbidities, such as restless legs syndrome, may be a cause for poor sleep in elders with cognitive impairment,” Dr. Richards and her colleagues wrote.

In a statement, Dr. Richards said that “treatment of periodic leg movements may result in improved nighttime sleep and improved quality of life in this vulnerable population.”

Dr. Richards has received research support from Beverly Healthcare Corp., but the study had no industry sponsorship. ■

## Sleep Problems May Predict Cognitive Deficit

BY SHERRY BOSCHERT  
San Francisco Bureau

SAN FRANCISCO — Reports of difficulty falling asleep were associated with poorer performance on some cognitive measures in a study of 174 elderly community-dwelling blacks.

Self-reported sleep trouble appears to be a unique predictor of cognitive performance, even after controlling for age, gender, education, depression, and current health, reported Alyssa A. Gamaldo of the psychology department at North Carolina State University, Raleigh, and her associates.

When asked whether they’d had any trouble falling asleep in the past year, 29% of participants said they did, a rate that’s consistent with the findings of previous, more rigorous studies of sleep difficulties, she said at the annual meeting of the Gerontological Society of America. From 10% to 40% of older adults reported sleep difficulties in earlier studies.

Investigators in the current study analyzed data from a subset of blacks in the Baltimore Longitudinal Study of Aging. Participants were living independently and had a mean age of 73 years, a mean education of 10 years, and a mean monthly income of \$800. The cohort was 71% women.

Those who reported sleep trouble tended to perform worse on measures of short-term memory and working memory.

Short-term memory was measured by the forward digit span task and the backward digit span task, and working memory was measured by the alpha span task.

Participants also completed the Mini-Mental State Examination (MMSE) to measure global cognitive status and the California Verbal Learning Test to measure episodic memory, but results for these were not significantly different between adults who did or did not have trouble sleeping.

Several previous studies have suggested that the relationship between self-reported sleep difficulties and cognitive performance may be moderated by depression. In the current study, however, neither depression nor older age appeared to exacerbate differences in cognitive performance, Ms. Gamaldo said.

The study employed the Center for Epidemiological Studies Depression Scale to measure depressive symptoms and these scores were used to categorize 36 participants as depressed (a score of 16 or greater) and 138 as not depressed (score of 0-15).

The analysis did find one significant interaction related to age and depression. Participants who were both older and depressed were more likely to have low scores on the MMSE.

To assess current health, participants were asked to rate their health on a scale from 1 (“very poor”) to 4 (“very good”). ■