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# Sixteen-Month Evaluation of Depressive Symptomatology in Older Adults

Graham J. McDougall Jr, Stephanie Morgan, and Phillip W. Vaughan

**We examined the prevalence of depressive symptoms over time in a sample of community-residing older adults at baseline, 2 months, 6 months, and 14 months. The nonprobability sample ($N$ = 222) was 90% female, 87% Caucasian, 15% Hispanic, and 12% African American with an average age of 75 years. If depressive symptoms had been measured at only one time, 19% of the sample would have scored above the cutoff versus 39% scoring above the cutoff when measured at all 4 periods. The findings provide evidence that depressive symptoms in older adults are variable and fluctuate over time. The significance of this research was the longitudinal evaluation of depressive symptoms in community-residing elders.**


GERONTOLOGISTS AND GEROPSYCHIATRIC nurses are interested in older adults' depressive symptomatology, and various hypotheses have been put forward to explain the extent or frequency of its occurrence in this population. Sadavoy (2009) stated that the five elements of psychogeriatrics include complexity, chronicity, comorbidity, continuity, and context. The incidence of receiving a depression diagnosis in Medicare beneficiaries who were followed up over 12 years doubled from 3.2% to 6.3%, with rates increasing substantially across all demographic subgroups (Akincigi et al., 2011).

Depression is the second most common chronic disorder seen by primary care physicians (PCPs), with a prevalence rate of approximately 14%–22% (Datto, Thompson, Knott, & Katz, 2006; Federal Interagency Forum on Aging Related Statistics, 2009; Fischer, Wei, Solberg, Rush, & Heinrich, 2003; Sharp & Lipsky, 2002). Along with multiple comorbidities, depression is the most treatable psychiatric disorder in late life and is easily managed in 80% of cases (Blixen, McDougall, & Suen, 1997; Egede, 2007).

A relationship has been found between cognitive impairment and depression as a result of elevated levels of cortisol, which damages the hippocampus (O'Brien, Lloyd, McKeith, Golkar, & Ferrier, 2004). Cortisol levels, depression, and memory impairment in human population studies have been associated. Bremmer et al. (2007) identified that the association between cortisol and major depression was U shaped. Hypocortisolemic depression (lower cortisol tertile) was associated with female gender, joint diseases, and smoking. Hypercortisolemic (upper cortisol tertile) depression was associated with older age, male gender, cardiovascular diseases, nonsteroidal anti-inflammatory use, and (borderline significant) cognitive impairment. In a different publication, the Amsterdam group found that higher levels of cortisol were not associated with cognitive decline in older adults ($N$ = 1,154) over a period of 6 years (Comijs et al., 2010). Salivary cortisol was measured in 40 healthy

*From the University of Texas at Austin, School of Nursing, TX; Texas State University, TX.*
*Corresponding Author: Graham J. McDougall Jr, PhD, RN, FAAN, FGSA, The University of Texas at Austin, School of Nursing, Austin, TX.*
*E–mail address: gmcdougall@mail.nur.utexas.edu*

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elderly subjects, 31 individuals with amnestic mild cognitive impairment (MCI), and 40 subjects with mild probable Alzheimer's Disease. Higher cortisol levels were associated with better memory performance in healthy elderly persons, whereas higher cortisol levels were correlated with poorer memory performance in MCI subjects (Souza-Talarico, Chaves, Lupien, Nitrini, & Caramelli, 2010). This relationship may be mediated by chronic stress. Peavy et al. (2009) followed 52 individuals for almost 3 years. Of those tested, there were 41 older adults with MCI and 61 cognitive normal adults. They excluded a diagnosis of dementia, significant medical or psychiatric conditions, and medication use (e.g., corticosteroids). Over time, higher event-based stress ratings were associated with faster cognitive decline in subjects with MCI but not in cognitively normal subjects. In contrast, higher cortisol levels were associated with slower cognitive decline in subjects with MCI but not in cognitively normal subjects.

There are established relationships between depression and various chronic conditions, such as cardiovascular disease, diabetes, and cerebrovascular accidents (Fischer et al., 2003; Sharp & Lipsky, 2002). Depression exacerbates a disability, increases the risk of institutionalization, and hastens death (Dearman, Waheed, Nathoo, & Baldwin, 2006; Okura et al., 2011; Sirey, Raue, & Alexopoulos, 2007). Heart failure (HF), a leading cause of mortality in older adults, is a useful illustration for examining depressive symptomatology (Centers for Disease Control and Prevention, 2011). In a review of 16 HF studies, Delville and McDougall (2008) found that the use of screening instruments resulted in higher frequencies of depression/depressive symptoms (21%–60%) than did diagnostic interviews (14%–39%). Screening instruments established prior to the 1987 diagnostic guidelines may not reflect the current definition of depression. Depression screening instruments appear to overestimate the incidence of depression in older adults with HF. A complete diagnostic interview for depression should be performed prior to the treatment of older adults with HF.

Depression in older adults is a phenomenon with enduring or episodic characteristics (Davey, Halverson, Zonderman, & Costa, 2004) and is linked to functional disability (Gallo, Rebok, Tennsted, Wadley, & Horgas, 2003; Lenze et al., 2005; Schillerstrom, Royall, & Palmer, 2008), gender and ethnicity (Killian, Turner, & Cain, 2005); living arrangements (Choi & McDougall, 2007), and memory complaints (Crane, Bogner, Brown, & Gallo, 2007; McDougall, 1995). This study examined the prevalence of depressive symptoms over time in a sample of community-residing older adults at baseline, 2 months, 6 months, and 14 months.

## METHODS

### Design

Data on the prevalence for depression were drawn from a larger intervention study testing the impact of cognitive training. The cognitive training and data on depression were drawn from a Phase III randomized clinical trial.

#### *Memory Training*

The Cognitive–Behavioral Model of Everyday Memory, based on Bandura's Self-Efficacy Theory, served as the basis for the memory-enhancing intervention designed to improve, maintain, or prevent decline in the everyday and episodic verbal memory of older adults at-risk for memory loss. The intervention consisted of four components: stress inoculation, health promotion, memory self-efficacy, and memory strategy training. Each memory training session began with a 20-minute relaxation exercise and emphasized the integration of the learned memory strategies into everyday life while focusing on the practical concerns of maintaining instrumental activities for daily function. The facilitator of the memory training was a septuagenarian female licensed psychologist and was a role model for the participants.

#### *Health Training*

The health training intervention emphasized learning strategies for successful aging. Topics included exercise, spirituality and health, alternative medicine, weight management, getting the most from your doctor visit, caring for the caretaker, healing foods, drug interactions, osteoporosis, maintaining relationships, health myths, consumer fraud, nutrition, leisure activities, writing family stories, health monitoring tests for home use, and buying drugs in foreign countries.

*Participants.* A total of 346 independent adults were recruited from a metropolitan area in Central Texas via print and television media, as well as