Depression in Long-Term Care

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The assessment and treatment of depression in long-term care (LTC) settings poses unique challenges to both clinicians and researchers. In this review we discuss the variety of forms depression can take among LTC residents and the influence the LTC environment can play on the development and maintenance of depression. We describe instruments that can be used to assess depressive symptoms, along with their strengths and liabilities. Additionally, we summarize treatment approaches, with an emphasis on the relatively limited number of empirically informed interventions. Throughout, we describe modifications that may improve the accuracy of assessment and the effectiveness of psychological treatments. Depression, while common among LTC residents, appears amenable to psychological intervention, although the field is far from identifying empirically supported treatments in the LTC setting.

Key words: **depression, long-term care.** ***[Clin Psychol Sci Prac 12: 280–299, 2005]***

Although only 5% of individuals over age 65 are living in long-term care (LTC) facilities at any given point in time, nearly 40% will spend at least some portion of their lives there (Seperson, 2002; U.S. Census Bureau, 2000). Despite their ability to provide comprehensive services, LTC environments present residents with many challenges, including a lack of privacy, confinement to an institutional schedule, and the knowledge that the LTC setting is likely to be an individual's final home. So it is perhaps not surprising that rates of depression among LTC residents are high. To make matters worse, depression is associated with excess disability in both hospital and LTC settings. That is, depression exacerbates other problems, such as functional deficits (Nanna, Lichtenberg, Buda-Abela, & Barth, 1997), behavioral disturbances (Ruckdeschel, Thompson, Datto, Streim, & Katz, 2004), subnutrition (Mitnitski, Song, & Rockwood, 2004), noncompliance with treatment (Murphy & Alexopoulos, 2004), and pain (Parmelee, Katz, & Lawton, 1991), as well as excess disability in dementia (Blazer, 2003). Depression also contributes to excessive morbidity (Parmelee, Katz, & Lawton, 1992) and mortality (Cohen, Hyland, & Kimhy, 2003). Therefore, depression among LTC residents is a significant public health problem.

In this paper we review the epidemiology of depression in LTC, paying attention to its various forms that are observable there. We also discuss briefly the etiology of depression and the potential influence of the unique ecology of the LTC environment. Assessment strategies and instruments are described next, with attention to the strengths and liabilities of specific instruments. Finally, we review treatment approaches that have been used to address depression in LTC, concluding with some recommendations regarding clinical practice and areas that need additional empirical attention.

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doi:10.1093/clipsy/bpi031

DISRUPTIONS OF MOOD AND THEIR PREVALENCE

The taxonomy of depression continues to evolve (see Blazer, 2003), and even within LTC the experience of depression can be quite varied. Consequently, statistics regarding prevalence vary depending on the definitions that are applied. Studies that have focused on major depressive disorder in LTC have found rates ranging from 6–24% (Katz & Parmelee, 1994; Jones, Marcantonio, & Rabinowitz, 2003; Parmelee, Katz, & Lawton, 1989; Payne et al., 2002; Teresi et al., 2002). The prevalence of minor depression and dysthymia appears to be higher, ranging from 30–50% in most studies (Katz & Parmelee, 1994; Parmelee, Katz, & Lawton, 1989). Meanwhile, subsyndromal but still clinically significant depressive symptoms appear to be higher still, ranging from 35–45% (Parmelee et al., 1989; Teresi, Abrams, Holmes, Ramirez, & Eimicke, 2001).

Depression also appears to be a common comorbid condition with dementia. Reviews suggest modal rates of comorbidity around 30% (Teri & Wagner, 1992; Wragg & Jeste, 1989). Evers and colleagues (2002) assessed the prevalence, diagnosis, and treatment of depression among dementia patients and normal controls in chronic care facilities in the last 6 months of life. They reviewed perimortal data concerning dementia severity, depressive symptoms and diagnoses, and medication use for 279 dementia patients and 24 normal controls brought to autopsy through an Alzheimer's Disease Resource Center. Major depression was highly prevalent among both dementia patients and normal controls in chronic care facilities in the last 6 months of life. Depression was underdiagnosed by physicians, and recognition of depression was significantly lower for patients with severe dementia. Depression was undertreated in both dementia patients and normal controls, although there exists evidence that treatment rates may be increasing. Anxiolytics and hypnotics were often used in lieu of, or in addition to, antidepressant therapy. The authors concluded that major depression was highly prevalent in both dementia patients and normal controls, indicating that depression was an important issue for the elderly in the last 6 months of life irrespective of cognitive status.

In another study, Payne et al. (2002) followed 201 LTC residents with dementia for 1 year after admission. The authors used the Cornell Scale for Depression in Dementia (see below) and defined depression as scores $>$ 12 during the past week. Initially, 19.9% of the residents were depressed, although the rate declined to 15% at 6 months and 7.5% at 12 months, with a cumulative risk for major depressive disorder among all residents over one year of 26.4%. These results indicate that depression afflicts a considerable proportion of LTC residents with dementia, but more optimistically the progressively lower rates of depression over time may reflect accurate detection and effective treatment. In another study, Menon et al. (2001) noted a higher rate of depression in LTC residents with dementia who also were physically or verbally aggressive, compared to those who were not aggressive. Aggression may be a unique manifestation of depression in LTC residents with dementia, and its appearance may signal a need for screening for an affective disorder. Dementia mixed with depression (and agitation) is associated with multiple medical and psychiatric needs, intensive pharmacological treatment, and more frequent use of high-cost medical services (Bartels et al., 2003). It is noteworthy too that depression in dementia also interferes with the staff's ability to provide care to the resident, contributing to lowered staff morale and increased staff turnover (Snowden, Sato, & Roy-Byrne, 2003).

ASSESSMENT OF DEPRESSION IN LTC

Special Considerations

The assessment of depression in LTC residents requires careful consideration of setting-related factors that might influence the development, maintenance, and expression of depressive symptoms. Attention to a full range of biopsychosocial issues will result in the best and most comprehensive understanding of resident's circumstances. First, medical comorbidities are common in LTC residents, making the detection of depression more difficult. Medical conditions can be associated with symptoms that mimic depression (American Geriatrics Society [AGS] & American Association of Geriatric Psychiatry [AAGP)], 2003; U.S. Department of Health and Human Services, 1999). Moreover, illnesses that are common among LTC residents, such as infections, organ dysfunction, constipation, dehydration, and pain, can have emotional and/or behavioral symptoms similar to those associated with disrupted mood. Consequently, consensus statements on the assessment of depression

(AGS and AAGP, 2003; American Medical Directors Association, 1996) recommend a medical evaluation to assess pain, nutritional status, chronic and acute medical conditions, and medications that have the potential to alter cognition or mood. In addition, the following laboratory testing may be warranted: hemoglobin, thyroid function, electrolytes, vitamin B12 level, serum drug levels, and complete blood cell count. Finding a disruption on one or more of these physiological indicators has obvious implications for treatment.

Another important consideration in the LTC setting is the differentiation between depression and dementia. As noted previously, dementia is common among LTC residents and presents with signs and symptoms that overlap with depression. For example, frontal lobe pathology leads to a lack of initiative, anhedonia, flat affect, emotional lability, or irritability (Gauthier, 2003; Lockwood, Alexopoulos, & van Gorp, 2002). Research also suggests that depression is a prodrome or risk factor for dementia (Alexopoulos, Meers, Young, Mattis, & Kakuma, 1993; Devanand, Sano, & Tang, 1996; Lichtenberg & Mast, 2003). In terms of assessment, then, it may be useful to employ informant- or observer-based scales for individuals with moderate to severe dementia (AGS & AAGP, 2003). On the other hand, individuals with more mild cognitive impairment may retain the ability to report accurately on their mood and emotional state (Lichtenberg & Mast, 2003). Additionally, we note that depression may take a different form in LTC, presenting as "depression without sadness" (see Blazer, 2003) or as a distinct phenomena (e.g., apathy; Reichman, Coyne, Amirneni, Molino, & Egan, 1996).

It is also the case that older adults entering LTC experience many losses: loss of home, belongings, pets, finances, and access to a familiar routine and surroundings. These represent major life changes that can be demoralizing for some residents. Residents in LTC also can experience profound psychological losses related to independence, freedom, autonomy, and privacy. For example, living with a roommate or sharing a bathroom can be a dramatic shift in lifestyle for an older adult. Although sharing a room can minimize depression for some residents, for others chronic roommate challenges can contribute to the development of depression (Lawton, 2001). An awareness of relocation circumstances and current psychosocial stressors within the LTC residence can add to a clinician's understanding of factors that might contribute to depression.

From a broader perspective, at the level of the facility itself, a LTC residence has a unique set of characteristics that can themselves be depressogenic. Many LTC settings are noisy, with frequent public address system announcements, call-light buzzers, radios and televisions left on, and the general din of many people interacting in a compact area (Lawton, 2001). The physical environment, with its institutional furnishings and odors, can be dispiriting. High turnover rates among staff with little training and varied socioeconomic, cultural, and cohort characteristics can create an interpersonal care environment that is ripe for misunderstandings and conflicts. Finally, the demands of living in a "total institution" (Goffman, 1961), at the mercy of staff and the facility's schedule for meals, dressing, bathing, and leisure activities, can reinforce a sense of dependency and hopelessness. A full understanding of whether a resident is depressed or not depends on a careful assessment of the interaction of biological, psychological, and social factors.

Measures

Clinicians interested in assessing the presence, nature, and severity of depressive symptoms have a variety of options. Most of the available standardized instruments are believed to be applicable to older adults inside and outside the LTC setting. As a general rule the norms of tests for older adults are influenced by many factors but especially age, education, health status, and of course setting. Table 1 includes a list of the depression scales most commonly used in LTC, organized according to their status as self-report or clinician-rated instruments. We should point out that normative data using the scales in LTC is lacking. The contents of this table were obtained by reviews of the standard comprehensive texts on older adults (e.g., Department of Veterans Affairs, 1996; Lawton, & Teresi, 1994; Lichtenberg, 1998; Tuokko & Hadjistavropoulos, 1998), as well as our own review of the psychometrics of potential scales. Where available, we provide data on optimum cut-off scores for older adults in psychiatric settings.

The Beck Depression Inventory (BDI; Beck et al., 1961) and the BDI-II (Beck, Steer, & Brown, 1996) are

Table 1. Information on key assessment measures in long-term care

Measure	Citation	Type of Measure	Description	Recommendations and Clinical Cut-off for LTC Settings
Beck Depression Inventory (BDI)	Beck, Ward, Mendelson, Mock, & Erbaugh, 1961	Self-report	21 item scale with series of statements rated in increasing severity of symptoms	Cutoff of 12/13 indicates presence of depression. Requires an 8th grade reading level, those with mild cognitive dysfunction or limited English proficiency may have difficulty, may not be feasible for older adults in LTC (Snowden, et al., 2003)
Geriatric Depression Scale (GDS)	Sheikh & Yesavage, 1986	Self-report	30 questions, yes/no format. Shorter versions (15 item and 5 item) are also available. Does not include somatic or vegetative features. Can be read to patient in an interview form in LTC settings, or patient can complete independently	Scores greater than 10 suggest presence of a depressive episode. Has been found to have good reliability and validity in LTC settings (Parmelee, et al. 1989) but use with residents with moderate or severe dementia may not be valid (Lichtenberg & Mast, 2002)
Center of Epidemiological Studies-Depression Scale (CES-D)	Radloff & Teri, 1986	Self-report	20 items used to detect depressive symptoms	Cutoff of 16 for mild depression and 23 and over to indicate significant depression. May not be valid for cognitive impaired elderly individuals
Zung Self-Rating Depression Scale	Zung, 1965	Self-report	20 items used to detect depressive symptoms	Reliability is .73 and alpha at .79. Strongly correlated with HAM-D. Cutoff of 50 for mild depression and 60 and over to indicate moderate depression. Not be valid for cognitive impaired elderly individuals
Electronic Minimum Data Set (MDS), Depression Rating Scale (MDSDRS)	Burrows, Morris, Simon, Hirdes and Phillips (2000)	Self-report	Core set of 7 mood items including: (1) Resident-made negative statements, (2) persistent, anger and irritability with self or others, (3) expressions of what appear to be unrealistic fears, (4) repetitive health complaints, (5) repetitive anxious complaints/concerns (non-health related), (6) sad, pained, worried facial expressions, and (7) crying, tearfulness. Scoring is based on: '0' the behavior was not exhibited in the last 30 days; '1' exhibited in the last 5–30 days; and '2' exhibited daily or almost daily	A core score of >=3 on the MDS depression rating scale offered the most favorable cut point
Hamilton Rating Scale of Depression HAM-D	Hamilton, 1967	Clinician rating with patient interview	21 items, often commonly omit last four items to give 17 item version, used primarily to quantify those already diagnosed	No reliability reported in LTC. Cutoff of 10/11 is generally regarded as appropriate for the diagnosis of depression
Geriatric Depression Rating Scale	Jamison & Scogin, 1992	Clinician rating of patient	5 items addressing depression, absent somatic issues	Adequate reliability but not tested in LTC
Cornell Scale for Depression in Dementia (CSDD)	Alexopoulos, Abrams, Young, & Shamoian, 1988	Clinician rating with patient interview and informant interview	19 items designed to assess signs and symptoms of major depression in dementia. 5 subscales: mood-related signs, behavioral disturbance, physical signs, cyclic functions, and ideational disturbance	May not be specific when patient has comorbid conditions (Kurlowicz, et al., 2002). Validity demonstrated (Weiner, et al., 1996) Scores above 10 indicate a probable major depressive episode and scores above 18 indicate a definite major depressive episode
Consortium to Establish a Registry for Alzheimer's Disease (CERAD) Behavioral Rating Scale	Tariot, et al., 1995	Clinician rating with informant	46 questions, 5 point severity scale, used to rate psychopathology in patients with probable Alzheimer's disease. 8 domains: depressive features, psychotic features, defective self-regulation, irritability/agitation, vegetative features, apathy, aggression, and affective lability	Best if trained rater

Table 1. *Continued*

Measure	Citation	Type of Measure	Description	Recommendations and Clinical Cut-off for LTC Settings
ADAS-Cog	Rosen, Mohs, & Davis, 1984	Clinician rating	Designed specifically to evaluate all aspects of Alzheimer's disease. Primary cognitive functions include memory, language and praxis. Non-cognitive features include mood state and behavioral changes. 10 non-cognitive items including "tearful", "appears/reports depressed mood", "increase/decrease appetite", on a scale of 0 (not present) to 5 (severe), total out of a possible 50 points	Best if trained rater
Neuropsychiatric Inventory (NPI); Neuropsychiatric Inventory nursing home derivative (NPI-NH)	Cummings, 1994	Clinician rating with informant	Measures the frequency and severity of psychiatric symptoms and behavioral disturbances in patients with dementia. 12 items in 7 domains: mood changes, agitation, personality alterations, psychosis, anxiety, sleep, appetite. Overall score and score for each subscale is the product of the severity multiplied by the frequency score	Best if trained rater (Woods, et al., 2000)

widely used self-report scales. Early reviews suggested that the BDI was a useful clinical and research tool with older adults (Gallagher, 1986), although the scale is not without significant limitations given the usual circumstances of LTC residents. Each item is rated with a relatively complex 4-point scale and items are written at an 8th-grade reading level. These factors pose problems for residents with little formal schooling (common in the current cohort of LTC residents), poor English language skills, or even mild cognitive dysfunction. A version of the BDI that used a dichotomous response format with LTC residents was found to be as useful and reliable as the original scale (Hyer, Sohnle, Ashraf, Hamer, & Ragan, 2003). While there is dispute (Lyness, et al., 1995), a number of items refer to somatic symptoms (e.g., fatigue, sleep disruption), which may result in inflated scores among LTC residents who are likely to have similar symptoms due to other reasons. Given these limitations, and its differential performance in men, who score lower than comparably depressed women, the BDI is not preferred for use in LTC (Snowden, Sato, & Roy-Byrne, 2003).

The Geriatric Depression Scale (GDS; Yesavage, Brink, & Rose, 1983) was designed specifically for use with older adults. The original GDS consists of 30 yes/no items, although 15-item (Lesher & Berryhill, 1994) and 5-item versions (Rinaldi et al., 2003) are also available. The simple response format, its brevity, and the exclusion of items related to somatic symptoms are unique advantages of the GDS. Its psychometric properties are generally good (Sheikh & Yesavage, 1986), although the scale may have lower sensitivity in men (Allen-Burge, Storandt, Kinscherf, & Rubin, 1994) and individuals with higher verbal intelligence (Harper, Kotic-Harper, & Kirby, 1990). The clinical utility of the GDS among LTC residents with moderate to severe dementia also has been questioned (Lichtenberg & Mast, 2002). One set of authors recommended screening residents first with the Mini-Mental State Examination (MMSE), only using the GDS when MMSE scores are $\geq$ 15 (McGivney, Mulvihill, & Taylor, 1994). A recent review, however, suggested that the 30-item scale might be the most useful version because of excellent criterion validity and good sensitivity and specificity, particularly among residents with MMSE scores of 15 or greater (Snowden et al., 2003).

The Center for Epidemiological Studies–Depression Scale (CES-D; Radloff, 1977) was originally developed for large general population studies of depressive symptoms. Its 20 items are rated on a 4-point frequency scale. Despite initial evidence of utility with older adults (Radloff & Teri, 1986), the CES-D has some of the same limitations as the BDI when used with LTC residents (e.g., a more complicated response format, items that inquire about somatic symptoms). More recent reviews describe only fair agreement between the CES-D and the short form of the GDS (Gerety et al., 1994; Radloff & Locke, 2000) In addition, the scale was developed for use in epidemiological studies, and its applicability to older adults with cognitive impairment and medical illness may be questionable (Radloff & Teri, 1986).

The Zung Self-Rating Depression Scale (Zung, 1965) is a 20-item measure with symptoms rated on a 4-point scale. This scale also includes somatic items, leading to inflated scores among older adults (Berry, Storandt, & Coyne, 1984). Age and sex differences in the factor structure of this instrument (Kivela & Pahkala, 1986), among other psychometric limitations, suggest the need for caution when using the scale in LTC.

In addition to self-report scales, a number of other instruments based on clinician ratings can be used to document depression in LTC residents. For example, a broad array of information about residents is collected in the Minimum Data Set (MDS; Hawes et al., 1997), an observational rating scale completed by nursing home staff at systematic intervals on all residents in facilities that receive Medicare and Medicaid reimbursement. A depression scale, derived from mood and behavioral items on the MDS, is available (Burrows, Morris, Simon, Hirdes, & Phillips, 2000). In the original scale development, significant and high correlations were reported between the MDS scale and the Hamilton Rating Scale for Depression, as well as between the MDS and the Cornell Scale for Depression in Dementia (Burrows et al., 2000). A score of ≥ 3 on the MDS scale appears to maximize sensitivity and specificity. When tested against diagnoses of major and nonmajor depression in LTC residents, sensitivity was 91%, specificity 69%. Detection characteristics were similar to the 15-item GDS. Recent reports have recommended using the MDS in concert with other measures, such as the GDS (Ruckdeschel et al., 2004; Snowden et al., 2003). One other study has suggested, however, limitations to the MDS, including problems due to its brevity and faulty rating procedures (Anderson, Buckwalter, Buchanan, Maas, & Imhof, 2003). Therefore, existing data on the MDS in LTC are equivocal and further study is warranted.

The Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967) is a 24-item scale more commonly used in research than clinical practice. The HRSD has acceptable concurrent validity with DSM-IV criteria for major depression, particularly when cut-off scores for specific diseases such as Alzheimer's disease and stroke are used (see Naarding, Leentjens, van Kooten, & Verhey, 2002). Using a structured interview format with the HRSD appears to result in higher internal consistency at least with older inpatients (Moberg et al., 2001). Interrater reliability also is adequate reaching .9 with total scores (see American Psychiatric Association, 2000). However, evidence for the utility of the HRSD in LTC is still lacking. Again, the presence of somatic items and the relatively lengthy time required for rating (approximately 45 min) are further disadvantages to this scale when used in the LTC setting.

The Geriatric Depression Rating Scale (GDRS; Jamison & Scogin, 1992) is a 35-item rating scale that combines the format of the HRSD with the content of the GDS. Thus, the scale requires the use of a trained interviewer but lacks the potential somatic bias of other instruments. Preliminary psychometric properties appear promising (Scogin, 1992), although there is little documentation about use of this scale in LTC.

The Cornell Scale for Depression in Dementia (CSDD; Alexopoulos, Abrams, Young, & Shamoian, 1988) consists of 19 items describing symptoms of depression that are rated by clinicians following both a semistructured interview with an informant who knows the resident and an interview with the resident. Internal consistency and interrater reliability are acceptable in LTC settings (Burns, Lawler, & Craig, 1999). The authors of this scale suggest it be used to rate the severity of depression rather than establish a diagnosis. It is also the scale most often used in clinical trials on depression in LTC settings and, therefore, warrants serious consideration as a useful clinical tool in these settings.

Three other scales provide information about disrupted mood in the context of dementia, but are limited

to assessment of depressive symptoms rather than depressive disorders. We include them because they have been used frequently in LTC settings and in clinical trials on the treatment of dementia and comorbid depression. The Behavior Rating Scale for Dementia (BRSD; Tariot et al., 1995; Mack & Patterson, 1996) is based on a structured interview with a patient's primary caregiver that is completed by trained personnel. The scale focuses on behavioral symptoms often present in persons with dementia, including depression. Jacobs and associates (1997) found that the absence of depressive symptoms on the BRSD is useful for ruling out depression, although the positive predictive power of the instrument is limited. The Alzheimer's Disease Assessment Scale–Cognitive (ADAS-Cog; Rosen, Mohs, & Davis, 1984) is a general scale to evaluate many aspects of functioning of people with Alzheimer's disease. Embedded within the evaluation are items about mood, all of which are rated by a clinician. Finally, the Neuropsychiatric Inventory (NPI; Cummings et al., 1994) is also an instrument based on the caregiver interview. It is designed for assessing a variety of psychiatric and behavioral symptoms in people with dementia. In addition to its good psychometric properties, other advantages of this instrument include its applicability across cultures (Cummings, 1997) and the existence of a nursing home version (NPI-NH; Wood et al., 2000). The NPI can be completed successfully by LTC staff members with relatively little interviewing experience (e.g., certified nursing assistants), particularly when symptoms are more severe. When symptoms are subtle, more valid results are obtained from staff with more training (e.g., nurses). Thus, ratings from staff with less experience should be interpreted with caution.

The issue of whether LTC staff members can accurately recognize and assess the severity of depression in LTC residents is an important one. One advantage of the LTC environment is that a variety of staff members have frequent and intimate contact with residents. Thus, they may be in a good position to know how residents are feeling and describe what they have observed to clinicians and researchers. Yet research suggests that staff may be poor at recognizing depression (Bagley et al., 2000). Teresi and associates (2002), for instance, found that nursing staff tended to overestimate the presence of depression among African-American LTC residents, as did social workers, though the latter group at the same time underestimated depression in residents with cognitive impairment or Parkinson's disease and in female residents. Identifying residents who are depressed can be challenging for staff members who have relatively little training in mental health issues and who work with residents with diverse personalities, sociocultural backgrounds, medical comorbidities, or cognitive capabilities. Staff may have a tendency to think of depressive symptoms as a normal part of aging (Schnelle, Wood, Schnelle, & Simmons, 2001), or they may attribute depressive symptoms to personality characteristics such as laziness or stubbornness. Perplexed by symptoms they do not understand, staff may avoid residents, further isolating older adults who may benefit from increased social interaction. Thus, although LTC staff may be a valuable source of information to clinicians trying to understand a resident, their reports should be interpreted cautiously until the clinician has a good sense of the resident's background, as well as training and experience with mood disorders and related conditions.

In general, the assessment of depression in LTC has not been well studied. It is clear, however, that the clinician often will need to modify standard protocols because of sensory deficits, cognitive and language problems, and environmental constraints. Moreover, many residents are unreliable reporters of their own behavior, so collateral reports of staff and family are important in helping the clinician evaluate the whole picture (Chemerinski et al., 2001). This especially applies to reports of sleep and mood reporting (Hyer & Ragan, 2003). It should be recognized, however, that caregiver reports may also be unreliable. Kales and Mellow (2003) suggest that caregivers, especially those who are experiencing depression themselves, may overreport mood symptoms. Additionally, the requirements necessary for the psychometric evaluation of psychological tests are lacking in LTC settings. Indeed, more sophisticated actuarial analyses (e.g., Area Under the Curve analyses) have rarely been done.

To summarize, depression in LTC residents can be assessed with many of the same instruments used with older adults in other settings, although there is not yet a sufficient evidence base to conclusively guide the clinician in the selection of scales. Nevertheless, the available literature suggests that when choosing an

instrument, researchers and clinicians should attend to several factors. First, the tool should be as brief as possible, without compromising psychometric attributes. Second, one should consider an instrument that contains few items focused on somatic symptoms, which could be due to other phenomenon common among older adults. Third, clinicians should choose a measure that uses a simple response format, particularly if used with residents who have even mild cognitive impairment. Finally, in the case of self-administered scales, one should use a scale that can be reformatted in a large typeface to account for visual deficits. We would also recommend making use of multiple and rich sources of information when conducting an assessment, including staff and family informants. Although there are potential problems with the validity of cognitively impaired residents' reports of depressive symptoms, both staff and family informants often can provide useful information on the status of residents.

TREATING DEPRESSION IN LTC

Special Considerations

As we have stated, the LTC environment differs in important ways from an inpatient rehabilitation unit, a hospital, or outpatient private practice. Treatment for depression in LTC needs to be sensitive to these differences, which can pose challenges for both clinicians and residents alike (Hyer & Ragan, 2003)

The challenges of providing treatment in a complex, hierarchical, multidisciplinary system can be formidable. Organizational goals and responsibilities may at times conflict with the individualized needs of particular residents and the goals of mental health practitioners trying to deliver high-quality services (Zweig & Hinrichsen, 1996). Pragmatic complexities in providing treatment can include a lack of privacy for confidential conversations, the presence of roommates who might complicate the delivery of therapy (and the life of the resident more generally), and potential scheduling conflicts with other activities or visitors (Duffy, 2000; Spayd & Smyer, 1996). The medication cart or a visiting relative can appear unannounced in the midst of an important psychotherapeutic moment. In addition, structural realities, such as high staff turnover, insufficient training regarding mental health, and the multifaceted stressors that direct care staff face every day can impede interventions that rely on staff assistance (Tellis-Nayak & Tellis-Nayak, 1989). Often therapists must confront therapeutic nihilism among the staff or staff behavior that undermines treatment goals, whether intentional or not (McCurren, Dowe, Rattle, & Looney, 1999). Additional efficacious staff training, an area where comprehensive models have been developed (Burgio et al., 2002; Hyer & Ragan, 2003), can be beneficial but are scant in practice. Finally, an improving but far from ideal reimbursement system is yet another obstacle to clinical practice in LTC.

There are also resident-related characteristics that can make the treatment of depression more challenging. The client population in LTC is frail, with more (and more advanced) impairments, both physical and cognitive. Consequently, respiratory weakness may make conversations difficult, chronic pain may distract from attention to therapeutic conversations or activities, visual impairment may limit the utility of written materials, and cognitive impairment may necessitate modifications to therapeutic techniques or treatment goals. Even when older adults agree to psychotherapy, they may see their role in more passive ways rather than being an active participant (Ossip-Klein & Karuza, 1996).

In addition to the challenges, there are also potential therapeutic benefits of the LTC environment itself. For instance, clinicians working in LTC have ready access to clients. Transportation limitations, an impediment for some older adults in the community, are less relevant in a residential setting. Proximity also makes it easier to see clients often, which may be preferable when residents need more frequent but shorter sessions. The residential setting also enables close monitoring of treatment compliance and progress. Clinicians themselves can watch their clients more closely, and they can rely on staff for frequent updates. Beyond providing information, staff in LTC also may be helpful in coordinating the logistics of individual or group psychotherapy (Molinari, 2002; Ruckdeschel, 2000) and in implementing interventions. For instance, if a resident's treatment plan calls for increasing the time she spends outside her room, staff would be essential to make it happen. Finally, residents in LTC are (usually) surrounded by a range of services that are integral to a biopsychosocial approach to mental health: Rehabilitative services, recreational therapy, spiritual resources, dietary

consultations, as well as medical and nursing care, are important components in a holistic approach to treating depression (Ogland-Hand & Zeiss, 2000).

Treatment Reports and Studies

Over the past 30 years, there has been a general consensus that psychotherapy can be an effective treatment for depression in the residential environment (e.g., Brody & Semel, 1993; Lichtenberg, 1999; Lichtenberg & Duffy, 2000; Meeks & Depp, 2002; Spayd & Smyer, 1996). A number of anecdotal and clinical reports support the use of psychotherapy with older institutionalized residents. In some of the earliest, Goldfarb and Sheps (1954) and Goldfarb and Turner (1953) provided a series of case studies of LTC residents with a range of problems, including depression, who were treated successfully with a psychodynamically oriented approach aimed at improving self-esteem through mastery. Ronch and Maizler (1977) and Semel (1986) reported success with similar, insight-oriented psychodynamic methods. Applying these concepts in a group format, Meunier (1989) described an empowerment-focused intervention that encourages residents to acknowledge their assets and set goals, however small. Using a more behavioral approach, Goddard and Carstensen (1986) presented the case of a depressed nursing home resident whose mood improved with an increase in self-initiated pleasant events. Given the common comorbidity of depression and dementia, it is not surprising to see a number of reports that suggested psychotherapy can be used to improve mood among individuals with cognitive impairment (e.g., Miller, 1989; Sadavoy & Robinson, 1989). Finally, approaches that combine brief supportive therapy with more intensive case management, consultation, and monitoring seem to hold some promise (e.g., Santmyer & Roca, 1991), although they have not undergone rigorous evaluation.

The research literature on treating depression in older adults, while growing, is still small in comparison to the intervention literature in other populations. A number of general reviews are available for readers interested in treatments used with older adults (e.g., Gatz et al., 1998; Niederehe, 1996; Reynolds et al., 1999; Rubinstein & Lawton, 1997; Scogin & McElreath, 1994; Scogin, Welsh, Hanson, Strump, & Coates, this issue; Teri & McCurry, 2000). More sparse is information specific to LTC. For exceptions, readers are referred to Hartz and Splain (1997); Molinari (2000); and Norris, Molinari, and Ogland-Hand (2002), which include information on depression-targeted treatments as well as other psychosocial interventions in LTC.

For this report we conducted a careful review of the texts just noted, as well as a review of the relevant studies over the past 3 decades based on PsychINFO searches for key words related to depression, psychotherapy, and long-term care. While many studies were identified, we limited our review to studies, listed alphabetically in Table 2, that addressed depressive symptoms or disorders. The studies included here employed a variety of designs but featured some form of randomization to a treatment condition versus a control condition. We eliminated some studies as a result of their small sample size or other methodological problems.

Readers will note other important features of the table. First, as pointed out before, few studies have examined residents with well-defined depressive disorders, instead concentrating on depressive symptoms. Second, cross-study comparisons are difficult to make because of the heterogeneity in sample characteristics, variability in treatment duration, and ill-defined therapeutic interventions (few of which have been manualized for reproducibility). Third, inconsistent follow-up assessments, when they are conducted at all, have provided little definitive information about long-term carry-over in symptoms that are likely to remit spontaneously. Thus, the current research is lacking in many respects.

In spite of these caveats, there are several tentative conclusions that one can draw from the findings reported in Table 2. First, it appears that many of the psychosocial interventions surveyed do mitigate depressive symptoms in LTC residents. Although less is known about treatment effectiveness in addressing clearly defined psychiatric syndromes, such as major depression, several preliminary studies have suggested promising results (Carpenter, Ruckdeschel, Ruckdeschel, & Van Haitsma, 2002; Hyer, Sohnle, Mehan, & Ragan, 2002; Rosen et al., 1997). Beyond an impact on mood, it is less clear how these interventions influence more distal outcomes, such as functional dependence, activity participation, social engagement, or compliance with self-care and health maintenance, although there is some

Table 2. Empirical studies of treatment for depression in LTC

Author (Year)	Clinical Focus	Assessments	Design	N	Treatment(s)	Length	Result	Follow-up
Abraham, Neundorfer, & Currie (1992)	Depressive symptoms	GDS, Hopelessness Scale, Life Satisfaction Index, Modified MMSE	RCT	42	Group psychotherapy; cognitive-behavioral vs. focused visual imagery vs. education-discussion control	24 weeks	No significant differences on depression, hopelessness, life satisfaction; improved cognitive functioning in both groups, more in visual imagery group	Improved cognitive functioning in visual imagery group at 4 week follow up
Ames (1990)	DSM-III depressive disorders in 45 of the 93 residents	BAS	RCT	93	Consultation regarding need for treatment by psychiatrist or social worker to other care providers vs. wait-list control; recommendations included prescription alteration, "referrals," "psychiatric service," and "special investigations"	12 weeks	No significant differences in depression scores for residents whose cases received consultative services	No significant differences in depression at 9-month follow up
Carpenter, Ruckdeschel, Ruckdeschel, & Van Haitsma (2002)	DSM-III major depression	SCID, Cornell, MAI	Convenience sample	3	Individual psychotherapy; focused on restoring self-esteem, enhancing self-efficacy, and mobilizing environmental resources	16 weekly or semi-weekly sessions	Significant decline in depressive symptoms, improvement in activity participation, and stability in functional independence	Continued low depression at 1- and 2-months
Cook (1991)	Depressive symptoms	GDS, LSI, RSE	RCT	41	Group psychotherapy; reminiscence vs. current events vs. no-treatment control	16 weeks, 1 60-min session per week	No significant differences between groups on depression, life satisfaction, self-esteem	None
Fitzsimmons (2001)	Depressive symptoms	GDS	RCT	39	Small-group socialization and recreational bicycle therapy vs. wait-list control	2 weeks, 5 60 min sessions per week	Mean GDS score decreased from 7.68 to 4.21; scores did not change in control group	None
Frey, Kelbley, Durham, & James (1992)	Low self-esteem	CFSEI, HSS	RCT	21	Group psychotherapy; intervention based on continuity theory to increase self-esteem vs. current events group	12 weeks, 1 session per week	Self-esteem increased in the intervention group	None
Goldwasser, Auerbach, & Harkins (1987)	Depressive symptoms	BDI, MMSE, ADL	RCT	27	Group psychotherapy for residents with dementia; reminiscence vs. support group vs. no-treatment control	5 weeks, 2 30-min sessions per week	BDI decreased from 8.6 to 4.5 in reminiscence group but not others; no changes in MMSE or ADL in any group	BDI for reminiscence group was higher than other groups at 5-week follow up

Table 2. *Continued*

Author (Year)	Clinical Focus	Assessments	Design	N	Treatment(s)	Length	Result	Follow-up
Haight Michel, & Hendrix, (1998).		ABS, LSI, SES, BDI, HS, SI	RCT	201	Individual psychotherapy; life review (i.e., structured reminiscence) vs. friendly visit	8 weeks, 1 60-min session per week	BDI scores were lower in the treatment group; no group differences in other measures	BDI, HS, ABS, LSI scores continued to be better in the treatment group at 1-year follow up; BDI was lower in the treatment group at 3-year follow up
Hussian & Lawrence (1981)	Depressive symptoms	BDI, HAS, self-rated depression scale	Random controlled crossover	36	Individual psychotherapy; problem-solving training (cognitive) vs. reinforcement for social participation (behavior) vs. wait list control vs. information-only control	2 weeks, 5 30-min sessions per week	BDI decreased for both treatment groups; HAS scores did not decrease; self-rated depression decreased; problem solving approach had most robust effect	Group differences remained at 2 weeks but disappeared at 3 months
Hyer, Sohnle, Mehan, & Ragan (2002)	Major depressive disorder, Adjustment disorder with depression/ anxiety	GDS, POMS	RCT	22	Group psychotherapy; positive core memory approach in a cognitive-behavioral format vs. usual care	12 sessions	POMS and GDS decreased in treatment and not control group	None
Lichtenberg (1998)	Depressive symptoms	GDS	RCT	37	Individual psychotherapy; behavioral approach delivered by psychologist vs. occupational therapist vs. usual care	Varied	GDS scores lower and ADL scores higher in both treatment groups relative to control; no difference between treatment groups	None
Llewellyn-Jones, Baikie, Smithers, Cohen, Snowdon, & Tennant (1999)	Depressive symptoms	GDS	RCT	169	"Shared care intervention" public health approach aimed at improving detection, self-referral, and access to treatment services vs. usual care	Mean interval between baseline and follow up was 40.9 weeks	GDS scores lower in intervention group by an average of 1.42 points	None
McCurren, Dowe, Rattle, & Looney (1999)	Depessive symptoms	GDS	Randomized trial, intervention individualized for each resident	61	Individual psychotherapy and paraprofessional visits; individualized, unstandardized intervention that included encouraging behavioral activation and social engagement vs.usual care	24 weeks, 2 visits per week by volunteer, 1 visit per week by nurse	GDS decreased significantly in intervention group, not in control group	None
Power & McCarron (1975)	Depressive symptoms	BPRS, Zung	RCT	30	Individual psychotherapy; interactive-contact treatment (focused on bodily contact and social interaction) vs. usual care	15 weeks, 1 30-min session per week	Zung and BPRS scores decreased for treatment group	Zung scores remained lower at 6-week follow up; BPRS data not presented

Table 2. *Continued*

Author (Year)	Clinical Focus	Assessments	Design	N	Treatment(s)	Length	Result	Follow-up
Rattenbury & Stones (1989)	Happiness—depression continuum	MUNSH, MUMS	RCT	24	Group psychotherapy; reminiscence vs. current events vs. usual care	4 weeks, 2 30-min sessions per week	MUNSH scores decreased for the reminiscence and current events groups; no significant change in any group on MUMS	None
Rosen, Rogers, Marin, Mulsant, Shahar, & Reynolds (1997)	DSM-III-R minor or major depression	SCID, HAMD, GDS	RCT	22	Individual psychotherapy; recreation- and socialization-based intervention in which residents guided their own leisure program vs. wait-list control	8 weeks, typically 2 60–120 min sessions per day, 5 days per week	36% of intervention group showed some improvement, while 0% of controls did	HAMD scores worsened significantly and GDS scores began to worsen at 2 month follow up
Sumaya, Rienzi, Deegan, & Moss (2001)	Depressive symptoms	GDS	Placebo controlled crossover	10	Bright light therapy; therapeutic dose vs. placebo vs. no-treatment control	5 days, 1 30-min session per day	GDS scores declined in therapeutic dose condition (mean change = 3.6) but not in placebo or control	None
Watson, Wells, & Cox (1998)	Depressive and anxiety symptoms	MOSES	Crossover	25	Rocking chair therapy in residents with dementia;	6 weeks, 60-min per day	Depression/anxiety decreased, but only in those who rocked 80+ min/day	None
Youssef (1990)	Depressive symptoms	BDI	RCT	60	Group psychotherapy; reminiscence (group 1 = 65–74 year olds, group 2 = >74 year olds) vs. usual care	6 weeks, 2 45-min sessions per week for first week, then 1 per week	BDI scores lower in young old but not in old old or control group	None
Zerhusen, Boyle, & Wilson (1991)	Depressive symptoms	BDI	RCT	57	Group psychotherapy; cognitive therapy vs. music therapy vs. usual care	10 weeks, 2 60-min sessions per week	BDI scores lower in cognitive therapy group (mean change of 12.37) compared to music group (1.53) and control (2.63)	None

Note. ABS = Psychology Well-Being Scale; ADL = Activities of Daily Living; BAS = Brief Assessment Scale; BDI = Beck Depression Inventory; BPRS = Brief Psychiatric Rating Scale; Cornell = Cornell Scale of Depression in Dementia; CFSEI = Culture-Free Self-Esteem Inventory; GDS = Geriatric Depression Scale; HAMD = Hamilton Rating Scale for Depression; HAS = Hospital Adjustment Scale; HS = Hopelessness Scale; HSS = Hunter et al. Self-Esteem Scale; LSI = Life Satisfaction Index; MAI = Multi-Dimensional Assessment Instrument; MMSE = Mini-Mental Status Exam; MOSES = Multi-Dimensional Observation Scale for Elderly Subjects; MUMS = Memorial University Mood Scale; MUNSH = Memorial University of Newfoundland Scale of Happiness; POMS = Profile of Mood States; RCT = randomized controlled trial; RSE = Rosenberg Self-Esteem Scale; SCID = Structured Clinical Interview for DSM-III-R; SES = Self-Esteem Scale; SI = Beck Suicidal Ideation Scale; Zung = Zung Self-Report Depression Scale.

encouraging evidence in this regard (e.g., Lichtenberg, 1998). Perhaps it is unrealistic to expect an intervention for depression to have such widespread impact on this population, but the broader outcomes could at least be another focus for future study.

Additionally, the studies suggest that interventions are efficacious with varied types of residents, from those who have full mental capacity and relative physical health (Fitzsimmons, 2001), to those with significant cognitive impairment who are more frail (Goldwasser, Auerbach, & Harkins, 1987). Both group and individual psychotherapies hold promise. The advantage of the group format includes promoting peer connections and social support in this setting.

We can also conclude tentatively that although several theoretical approaches have been used in the LTC setting, no single modality has shown preeminence. Although hardly definitive, the evidence to date suggests that behavioral approaches that increase pleasant events (Lichtenberg, 1998), cognitive approaches that challenge distorted cognitions and bolster self-esteem and mastery (Zerhusen, Boyle, & Wilson, 1991), interpersonal therapies that address relationship issues (Hinrichsen, 1999), and reminiscence or life review approaches that seek to establish or reestablish meaning in life (Haight, Michel, & Hendrix, 1998) may all be useful. Reminiscence, in particular, has been studied broadly but with equivocal results (Cook, 1991; Goldwasser, Auerbach, & Harkins, 1987); a more structured approach (i.e., life review as in Haight et al., 1998) might be more effective than more open-ended recollection (e.g., Youssef, 1990).

Indeed, recently developed interventions seem to be moving in the direction of integrating multiple modalities and emphasizing care tailored to the individual. For instance, Hyer and colleagues (2002) have developed an intervention that uses elements of life review to help residents apply what is learned to current circumstances, much like a cognitive-behavioral approach. Likewise, Carpenter and colleagues (2002) have tested an intervention that incorporates strategies to enhance self-esteem and mastery. This approach is akin to humanistic and cognitive therapies, yet also adopts a systems view in its recognition of the role that the LTC milieu can play in the onset and resolution of depression. It is worth noting that treatments were manualized in both of these interventions, a feature that is essential for controlled clinical trials.

We should also mention two important areas not covered by our general review that play a significant role in treatment of depression in LTC; namely, family relationships (Qualls, 2000) and milieu and organization/training variables (Hyer & Ragan 2003). While some residents may feel relieved upon entering LTC because they no longer represent a caregiving burden to their family, others may feel resentful at having to live in an institution rather than with family. The circumstances of relocation are key for clinicians to understand. Likewise, historic family conflicts may continue to smolder even after individuals have moved into a LTC residence, adding to the stress residents may feel. Intentionally or not, family members also may undermine therapeutic progress by reinforcing unnecessary dependency or infantilizing the resident with inappropriate assistance or speech. The relationship between family and staff also deserves attention, as both parties bring to their care of the resident expectations about what the other party should provide and judgments about the care that is provided. In fact, this problem has been found to be a substantial barrier in the frequency of visits in LTC (Port, 2004). On the other hand, family members can play an important supportive role to residents. They can assist with therapeutic interventions (e.g., visiting regularly, taking residents out of the facility on brief trips, encouraging active involvement in the life of the facility) and provide beneficial emotional support. Structured educational programs developed by Pillemer and colleagues (Pillemer, Suitor, & Henderson, 2003) help allow families to remain active in the life of residents by structuring family responsibilities, promoting sustained involvement, and facilitating cooperation between family and staff.

Regarding milieu and organization/training variables, several programmatic interventions appear to be mildly effective (Hyer & Ragan, 2003). Readers are referred also to the review of 83 studies by Cohen-Mansfield (2001) for a summary of other treatments applied in LTC settings. They include bright light therapy (Sumaya, Rienzi, Deegan, & Moss, 2001) and exercise (Watson, Wells, & Cox, 1998), which deserve special attention for their own utility and as potential complements to more traditional therapies. As we have done, Cohen-Mansfield described the general poor

quality of these studies, arguing for combined and individualized therapies, as well as improved studies. In this group we include interventions at the programmatic or organizational level, recognizing that a focus on the broader environment better supports residents' mental health (Borson & Fletcher, 1996), as well as training of staff (Burgio, & Stevens, 1998).

Research Considerations

Unfortunately, there are no double blind, placebo-controlled, randomized clinical trials (RCTs) in LTC. Extant trials in LTC do not meet established criteria for empirically supported treatments (Kazdin, 1994; Chambless & Ollendick, 2001), nor have they undergone the scrutiny normally applied to criteria of randomized trials (Foa & Meadows, 1997). In large part this is because clinical research in LTC is challenging. Residents may be hesitant to participate in clinical research because of the stigma associated with being visited by a mental health practitioner. As well, the process of obtaining informed consent in samples where cognitive impairment is commonplace can be complicated and daunting. Attrition of LTC research samples is likely due to illness or disability, and resident frailty may hamper full participation in some aspects of some interventions (Hyer et al., 1990). One recent review (Sink, Holden, & Yaffe, 2005) revealed another pervasive problem: namely, the inability of extant drugs to address the psychiatric comorbidities that are common in LTC residents, especially when the residents have cognitive problems. Only tenacious and skilled researchers can expect to have success completing research in this environment (e.g., Burgio & Stevens, 1998).

There is clearly a need for more methodological rigor in the study of psychological treatments for depression in LTC. Future clinical research will need to employ standardized assessments and interventions (including evaluation of treatment adherence and competence) in order to better inform the field about both macro issues (e.g., whether psychosocial interventions are effective and what types are most effective) and micro issues (such as optimal "dosing" of sessions and the utility of follow-up booster sessions). Additionally, methodological rigor implies the use of a manual and the necessary safeguards for its use. Moreover, research attention should be directed at treatment of LTC problems that are modal and perhaps alterable (Blazer, 2003). Subsyndromal symptoms of several disorders, somatic problems, inactivity, and cognitive decline are prime candidates for psychosocial or pharmacological therapies and their combinations. We also add that interventions that utilize paraprofessionals, such as trained peer volunteers and direct care staff (McCurren et al., 1999), make positive use of available resources and reflect the real limitations in reimbursement for mental health services conducted by licensed professionals.

Another important research consideration is the definition of the clinical phenomena to be studied in LTC. Research could focus on clearly defined disorders, such as DSM-IV major depression, but also could examine subsyndromal depressive symptoms. The latter has been more common. Indeed, the majority of studies to date have not used diagnostic interviews or clear inclusion criteria to create a well-characterized research sample, but have instead relied on self-report depression scales such as the GDS or BDI to document symptoms in heterogeneous samples (Borson & Fletcher, 1996). Moreover, previous studies have examined a range of constructs presumably related to depression (e.g., self-esteem, life satisfaction, hopelessness) but, again, not the explicit disorder itself. Researchers then have not pinpointed in an organized way what it is they hope to improve with the interventions they evaluate. The selection of appropriate outcome measures is especially important as life in LTC is often characterized by a progressive sequence of physical and psychological challenges. For many LTC residents, success can mean slower decline; for others, relapse prevention will be a priority. Thus, a remaining challenge is the systematic definition of clinically relevant outcome measures in LTC research with depressed older adults.

CONCLUSION

The detection and treatment of depression in older adults remains a significant public health problem (Blazer, 2003). The challenge is even greater among older LTC residents, who are often medically or cognitively compromised, whose depression may manifest in ways unique to this population, and who live in an environment where depression is likely to have multifaceted causes. Depression among LTC residents, therefore, appears to be underrecognized and undertreated

(Brown, Lapane, & Luisi, 2002). Useful self-report and clinician-rated scales are available for assessing depression, although more research is needed to substantiate the utility of these instruments with LTC residents. Even less clear are recommendations about interventions. LTC residents are best served by psychologists who are "empirically informed" and who apply sound cognitive, behavioral, and interpersonal approaches.

Unfortunately, the empirical literature on the treatment of depression in LTC remains sparse. A cautious conclusion is that many treatments used with older adults in other settings *may be* transferable to the LTC setting, albeit with some modification. Yet much more research is needed. Controlled clinical trials, while difficult to execute in LTC, are an urgent priority. These should include manualized (i.e., reproducible) treatments that are compared to other potential treatments and to a control group. More studies are needed on the use of medications, including the atypical antipsychotics, new antidepressants, and cholinesterase and GABA-based inhibitors, as potential adjuncts to psychosocial interventions (Hyer, 2004).

Many important clinical and research challenges have not been addressed in this limited review. Foremost among these is the question of how race, culture and ethnicity, of both residents and caregivers, influence the expression and treatment of depression in the LTC setting. This variable is most salient if for no other reason than the fact that employees of LTC facilities tend to be persons of color, often caring for whites. Additionally, other moderating variables such as age and gender are important in understanding the expression and treatment of depression. More attention should also be given to the milieu and the importance of staff training, a key factor that is becoming better understood (Hyer & Ragan, 2003). Relapse prevention is another important issue that has received remarkably little attention in the literature, perhaps because we are still in the early stages of understanding the longitudinal course of depression in LTC.

Additionally, we neglected the importance of understanding the phenomenology of "successful aging" even in the context of severe medical conditions. Many older adults adapt well in LTC despite significant health problems, accommodating to the challenges of the environment with coping skills that may go unobserved by clinicians. More should be learned about how these resilient residents succeed in LTC in order to develop strategies that may be used to help other residents who are less successful.

In closing, it is important to emphasize that quality biopsychosocial care should be a continuous process, one that requires close monitoring and, when needed, specific interventions designed to improve performance on validated indicators (Katz, 2004). Depression is common among LTC residents, yet attention to it can improve quality of life. At present we are only beginning to understand the best methods for detecting and treating the problem, and more rigorous, extensive clinical research is needed.

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Received August 5, 2004; accepted May 24, 2005.