



## MENTAL HEALTH AND OLDER ADULTS

### CHAPTER 3: DEPRESSIVE DISORDERS IN OLDER ADULTS

#### LITERATURE REVIEW

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#### Search Strategy

This review of the research literature on late life depressive disorders was undertaken to determine the extent of the problem and the effectiveness of various psychosocial and pharmacological treatments. The term effectiveness is defined here as producing or capable of producing a desired effect in a controlled study (Level A evidence). The review consists of systematic reviews, meta-analyses, other reviews of the literature, experimental, quasi-experimental designs, and case studies with older adults (65+) as participants, reported in English language peer-reviewed journals. Keyword terms included the following: aged, aging, elderly, geri\*, older adult, senior, depressed, depression, mood disorder, intervention, treatment, and randomized controlled trials. We conducted searches in the following electronic databases: PubMed (1980-2007), PsycINFO (1972-2007), Ageline (1978-2007), Social Work Abstracts (1977-2006/December), and Social Sciences Abstracts (1983-2007). Google Scholar was also searched using November-February 2008 as the time range to identify recent publications that would not have been cited or indexed. Relevant journals were hand searched to identify recent publications that would not have been cited or indexed. Unpublished literature was not included.

#### Background and Significance

This review addresses the epidemiology, prevalence, suicide risk, comorbidity, and evidence-based treatments for depression in late life, focusing on empirical research with community-based and institutionalized older adults. This review specifically examines depressive disorders since they frequently occur in older adults. The aim is to highlight critical themes of depression in late life that are pertinent for social work practitioners, researchers, educators, and policy analysts, as they confront the challenge of shaping and delivering services to an aging population in the coming decades. If social workers are to respond to the continuing demographic shift, they must be

knowledgeable in evidence-based treatments for depression in older adults (Gellis & Reid, 2004).

Depression is a frequent cause of psychological distress in later life and significantly decreases quality of life (Blazer, 2002; Doraiswamy, Khan, Donahue, & Richard, 2002; Gellis, 2006). As the U.S. population continues to grow older, the necessity for social work to provide assistance with mental health needs associated with later life will be critical. This will become especially apparent between the years 2015 and 2030, when older adults (65 years+) will account for 20% of the total population, up from 13% in 2000 (U.S. Bureau of the Census, 2000). Another concern is that less than 3% of older adults seek mental health care in the U.S. (Gellis, 2006). Added to this trend is the increasing proportion of minority older adults, including African-American, Latino, and Asian-Americans (Arean et al., 2005; Gellis & Taguchi, 2003; Harada & Kim, 1995), who tend to experience more obstacles than Caucasians do in accessing mental health services. Due to these trends, strategic planning to meet the call for geriatric mental health services is imperative. Therefore, it is critical for social work practitioners to understand and intervene in mental health problems of aging since the social work profession is the largest provider of mental health services in the U.S.

Depressive disorders in older adults are relatively prevalent (Administration on Aging, 2001; Baldwin, 2002). Inadequate recognition and treatment of depression at the individual level has important implications for the use of social, medical, and mental health services, and for the allocation of health care resources (Birrner & Vemuri, 2004; Powers, Thompson, Futterman, & Gallagher-Thompson, 2002). The provision of mental health care to older adults involves a unique set of barriers to human service providers. Older adults may be fearful of seeking psychological treatment or acknowledging that they have an emotional problem due to stigma. They may worry that if they identify themselves as in need of mental health services, they may jeopardize their health care and insurance. They also fear loss of financial security and independence, embarrassment, isolation, or being declared incompetent. Service access barriers, including limited financial resources, language barriers, and a lack of culturally-sensitive programs, are other reasons for not seeking treatment. Sometimes, due to fragmented mental health services or gaps in services, older adults do not receive appropriate care when they do seek help. Financial constraints of managed care are increasingly restricting the time spent with clients, forcing mental health concerns to compete with comorbid medical conditions. Primary care physicians often report feeling too pressured for time to investigate mental health problems in older people (Glasser & Gravdal, 1997). Given the inseparability of mental and general health in later life, this trend is of concern. Likewise, there is a critical shortage of professional staff trained in the geriatric mental health field to meet this looming public health crisis.

Chronic medical conditions are common in older adults and frequently co-occur with mental disorders such as depression and anxiety disorders. Mental health

problems in later life demand extra attention to minimize their effects on disability and the quality of life. Medically ill older adults experience more depressive symptoms, more anxiety, less self-esteem, and lower ability to control many aspects of their lives than older adults without disease experience. Given the effects on daily functioning of depression, anxiety, cognitive decline, and physical illness in older adults, understanding geriatric mental health problems and utilizing efficacious treatments assumes great importance.

### **Epidemiology of Depression Disorders**

According to the Surgeon General's Mental Health Report, depression in older adults leads to physical, mental, and social dysfunction (United States Department of Health and Human Services [USDHHS], 1999). Depression is a serious and prevalent medical illness in older adults (Bruce et al., 2002; Gellis, 2006). The prevalence estimates of major depression in community elderly samples are low, ranging from 1% to 4% overall, with a higher prevalence among women than men. The prevalence rate for dysthymia is about 2% although for minor depression estimates are higher, ranging from 4% to 13%, with the same pattern of distribution across gender, race, and ethnicity (Blazer, 2002; Beekman et al., 1995). There are no significant racial or ethnic differences in prevalence rates for depression (Beekman, Copeland, & Prince, 1999; Steffens et al., 2000; Zalaquett & Stens, 2006). There is some suggestion that rates are higher for Hispanic elderly though further investigation is warranted. In one study, 25% of Latino-Americans scored above criterion on a well-validated depression screening measure (Gonzales, Haan, & Hinton, 2001).

In comparison to the general older population, estimates for major depression in medically ill elderly are higher, ranging from 10% to 12% with an additional 23% experiencing significant depressive symptoms (Koenig, Meador, Cohen, & Blazer, 1988). In home health care, estimates of 13.5% for major depression and 27.5% for significant depressive symptoms were found (Bruce et al., 2002; Gellis, 2006). Rates of clinically significant depressive symptoms among medically ill elderly range from 10 to 43% (Williams-Russo, Sharrock, Mattis, Szatrowski, & Charlson, 1995; Peterson, Williams-Russo, Charlson, & Myers, 1996; Steffens et al., 2000). In fact, depression is twice as prevalent in home health care as in primary care; it is persistent, intermittent, and is associated with medical illness, pain, and disability (Lyness, Niculescu, Tu, Reynolds, & Caine, 2006).

In long-term care settings, prevalence rates for major depression can range from 6% to 24% (Blazer, 2002) and clinically significant depressive symptoms range from 12% to 50% (Hendrie et al., 1995; Hyer, Carpenter, Bishmann, & Wu, 2005; Mojtabai & Olfson, 2004; Parmelee, Katz, & Lawton, 1989; Payne et al., 2002). Depression is underdetected

in long-term care facilities and if detected, is inadequately treated (Teresi, Abrams, Holmes, Ramirez, & Eimicke, 2001; Brown, Lapane, & Luisi, 2002).

The prognosis of depression can often be poor. A meta-analysis of depression outcomes at 24 months estimated that only 33% of older patients were well, 33% were depressed, 13% were hospitalized, and 21% had died (Cole, Bellavance, & Mansour, 1999). Depression is also an independent predictor of overall poor treatment compliance and may exacerbate other common chronic medical conditions in older adults (DiMatteo, Lepper, & Croghan, 2000). Moreover, late life depression slows recovery rates from illnesses and surgeries and is associated with increased mortality (Beekman et al., 1999; Unützer et al., 2002).

In summary, evidence is clear that late life depression is one of the most common mental disorders to present in primary care and home health care settings (Bruce et al., 2002; Gellis, 2006; Gellis, McGinty, Horowitz, Bruce, & Misener, 2007; Lyness, King, Cox, Yoediono, & Caine, 1999; Reynolds & Kupfer, 1999). Nearly 5 million of the 31 million Americans over 65 suffer from clinically significant depressive syndromes.

### **Comorbidity of Depression in Older Adults**

The consequences of depression in later life are potentially serious. Depressive disorders can be persistent (Unützer et al., 1997, 1999), intermittent and/or recurrent (Little et al., 1998), and result in significant physical and psychological co-morbidity and functional impairment (Coyne, Fechner-Bates, & Schwenk, 1994; Katon et al., 1994) that negatively influence the course of depression (Sherbourne & Wells, 1997).

Cole and Dendukuri (2003) completed a systematic review of risk factors for depression in community-dwelling elderly that involved a qualitative and quantitative synthesis of the data. They examined 20 studies and identified key risk factors that included female gender, sleep disturbance, disability level, prior history of depression, and bereavement.

Depression with physical illness increases levels of functional disability (Alexopoulos et al., 1996; Proctor et al., 2003), use of health services (Beekman, Deeg, Braam, Smit, & Van Tilburg, 1997; Saravay, Pollack, Steinberg, Weinsched, & Habert, 1996), and health care costs (Callahan, Kesterson, & Tierney, 1997; Manning & Wells, 1992; Simon, VonKorff, & Barlow, 1995), particularly among older adults (Unützer et al., 1997). It also delays or inhibits physical recovery (Covinsky, Fortinsky, Palmer, Kresvic, & Landefeld, 1997; Katz, 1996). Common medical illnesses known to be associated with depression include heart disease, stroke, hypertension, diabetes, cancer, and osteoarthritis.

## Suicide in Late Life

Late onset, unipolar depression is characteristic suicide victims in later life (Conwell et al., 1996, Henriksson et al., 1995). Older suicide victims often have had late onset undetected or untreated depressions, although typically they have had contact with their primary care provider prior to their death (Conwell, 1994; Van Casteren, Van der Veken, Tafforeau, & Van Oyen, 1993), presumably reflecting high rates of comorbid illness (Barnow & Linden, 2000; Conwell et al., 1996) and/or fears of dependency or pain (Duberstein, 1995). Taken altogether, these findings support the importance of treatment of depression in late life.

Suicide is almost twice as frequent in the elderly as in the general population (Conwell, Duberstein, & Caine, 2002). The elderly account for 20% of all suicides, yet they make up only 13% of the population (Hoyert, Kung, & Smith, 2005; Pearson & Brown, 2000). Some of the most common demographic correlates of suicide are older age, male gender, white race, and unmarried status (Peters, Kochanek, & Murphy, 1998). Late onset depression is a serious risk factor for suicidal ideation (Conwell et al., 1996; Lebowitz et al., 1997; Raue, Meyers, Rowe, Hao, & Bruce, 2007). Late onset, unipolar depression is characteristic of suicides in later life (Conwell et al., 1996, Henriksson et al., 1995).

In the U.S., older white males age (85+) have the highest suicide completion rates (65 per 100,000), exceeding adolescent rates (16.6 per 100,000) (U.S. Dept. of Health and Human Services, 2003). This is over six times the rate of all age-adjusted suicides (Peters et al., 1998). Older men (80+) take their own lives at four to six times the rate of older women (Scocco & de Leo, 2002). Rates of depression among elderly suicide victims have been estimated at approximately 80% (Conwell et al., 1996; Plutchik, Botsis, Weiner, & Kennedy, 1996). Depression, comorbid anxiety, substance abuse, isolation, loneliness, lack of social supports, and declining physical health are some of the risk factors for suicide among older adults (Conwell et al., 2002). Retrospective studies identified that greater than 70% of older suicide victims had had contact with their primary care provider within 3 months prior to their death (Conwell, Olsen, Caine, & Flannery, 1991; Conwell, 1994; Diekstra & van Egmond, 1989; Frierson, 1991; Uncapher, 2000). In these studies, the majority of older patients had late onset undetected or untreated depressive symptoms, likely reflecting high rates of comorbid illness and/or fears of pain or dependency on others (Duberstein, 1995).

During the past decade, efforts to improve detection and treatment of geriatric depression in health care settings have led to lowered suicide rates (Brown, Bruce, & Pearson, 2001; Lish et al., 1996). One recent large multisite randomized trial known as PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial) enrolled patients who met criteria for major depression, dysthymic disorder, or minor depression and observed them for a period of 2 years through acute, continuation, and maintenance phases of treatment (Bruce & Pearson, 1999; Alexopoulos et al., 2005). The

experimental intervention was implemented by depression care managers who monitored psychopathology, treatment adherence, response, and side effects at predetermined times. Patients were offered antidepressant medications and/or interpersonal psychotherapy, an evidence-based intervention. The usual primary care condition included primary care physicians who were notified in writing of the patient's depression diagnosis and informed when the study guidelines indicated suicide risk in individual patients. Physicians received a videotape and printed material on geriatric depression and treatment guidelines. The PROSPECT trial demonstrated that elderly patients receiving a depression care management intervention had less severe depressive symptoms and greater remission rates at 4, 8, and 12 months than did patients receiving usual primary care (Bruce et al., 2004).

## **Evidence-Based Interventions**

### **Psychosocial Interventions**

Psychosocial interventions have been demonstrated to be effective among older adults, particularly those who reject medication due to unpleasant side effects or who are coping with low social support or stressful situations (Choi & Morrow-Howell, 2007; Gellis, 2006; Klausner & Alexopoulos, 1999). Evidence-based approaches such as structured problem-solving (PST) cognitive-behavioral (CBT), and interpersonal (IPT) therapies are effective intervention alternatives or adjuncts to medication treatment (Gath & Mynors-Wallis, 1997; Gellis, McGinty, Horowitz, et al., 2007; Gerson, Belin, Kaufman, Mintz, & Jarvik, 1999; Hegel, Barrett, Cornell, & Oxman, 2002; Jacobson & Hollon, 1996; De Rubeis, Gelfand, Tang, & Simons, 1999; Schulberg, Pilkonis, & Houck, 1998). These interventions are considered Level A evidence due to demonstrated outcome effectiveness in numerous randomized trials. (See Chapter 1. Introduction for description of Levels of Evidence.)

Some evidence indicates that psychosocial interventions alone are effective with older populations, including minorities (Coulehan, Schulberg, Block, Madonia, & Rodriguez, 1997; Mossey, Knott, Higgins, & Talerico, 1996; Munoz, et. al., 1995). Cognitive therapies, including PST, are particularly promising (McCusker, Cole, Keller, Bellavance, & Berard, 1998; Nezu, 2004; Robinson et al., 1995) among older men and women of diverse ethnic backgrounds (Gil et al., 1996). Patient attitudes and preference for type of treatment has been shown to affect acceptance of and adherence to the prescribed treatment for depression (Schulberg, Magruder, & deGruy, 1996), and the majority of primary care patients prefer counseling over medication (Brody, Khaliq, & Thompson, 1997; Landreville, Landry, Baillargeon, Guerette, & Matteau, 2001).

PST interventions for depression by non-medical mental health practitioners have also demonstrated effectiveness for homebound, frail, medically ill populations (Gellis, McGinty, Horowitz, et al., 2007; Mynors-Wallis et al., 1997) (Level A). Adjunct written

educational materials for patients and family members have been shown to improve medication adherence and clinical outcomes (Robinson et al., 1997). Gellis, McGinty, Horowitz, and colleagues (2007) found robust effects in treating geriatric depression using 6 sessions of PST. Other researchers found similar effects using 12 sessions of PST (Arean et al., 1993). Some studies have found that 6 sessions of PST are as effective as pharmacotherapy among ambulatory primary care patients with minor and major depression (Hegel et al., 2002; Mynors-Wallis, Gath, Lloyd-Thomas, & Tomlinson, 1995), are modestly effective with older adults with minor depression (Mossey, 1997), and lead to greater improvement in self-reported social adjustment (Mynors-Wallis et al., 1995). PST can also be used by therapists of different theoretical orientations (Arean et al., 1993; Gellis, McGinty, Tierney, et al., 2007; Mynors-Wallis, Gath, Davies, Gray, & Barbour, 1997).

Literature reviews on the effect of CBT on late-life depression noted that CBT was at least as or more efficacious than pharmacotherapy and other forms of psychotherapy such as IPT, brief insight-oriented therapy, PST, and reminiscence therapy (Arean & Cook, 2002; Cuijpers, van Straten, & Smit, 2006; Laidlaw, 2001; Pinguart & Soerensen, 2001; Zalaquett & Stens, 2006) (Level A). The positive outcomes for CBT were detected in both clinician-rated depression (e.g., the Hamilton Depression Rating Scale [HDRS]) and self-rated depression scales (e.g., the Beck Depression Inventory [BDI]), and shown equally in individual and group therapy. The reviews also found that therapeutic gains were maintained in some groups of older adults for a period of 6 months or longer (Laidlaw, 2001).

A review of the efficacy of several therapies evaluated in randomized trials (12 studies of CBT, 6 studies of behavior therapy, 5 studies of reminiscence and life review, 4 studies of PST, 3 studies of IPT, and 5 studies of other therapies) found that the different treatments had moderate to substantial effects on reducing depression in older adults with no clear evidence that one type of treatment was more effective than another (Cuijpers et al., 2006; Laidlaw, 2001) (Level A).

Among low-income older adults with Major Depressive Disorder (MDD) or dysthymia, cognitive behavioral group therapy (CBGT) augmented with clinical case management and clinical case management alone led to greater improvements in depressive symptoms 12 months after treatment, compared to CBGT alone (Areán, Gum, & McCulloch, 2003). In a study of low-income older primary care patients with MDD, Spanish-speaking and English-speaking patients responded equally well to CBT alone versus case management alone (Miranda, Azocar, & Organista, 2003). Interestingly, CBT with supplemental case management was associated with greater improvement in symptoms and functioning than CBT alone for Spanish speakers, but the combination was less effective for those whose first-language was English. These two studies suggest that combined case management and CBT may have more efficacy than CBT alone for persons in low-income and/or certain minority group.

IPT, another evidence-based intervention for late life depression, focuses on the depressed person's relationships and conflicts with family and friends (Hinrichsen, 1999; Miller et al., 2001) (Level A). The overall purpose is to improve communication in those relationships and to develop or enhance the social support network of the identified depressed patient (Weissman & Markowitz, 1994). Several meta-analytic reviews provide findings of the efficacy of IPT for depression (de Melo, de Jesus, Bacaltchuk, Verdelli, & Neugebauer, 2005; Parker, Parker, Brotchie, & Stuart, 2006; Thase et al., 1997; Weston & Morrison, 2001). IPT was found to be somewhat better than waitlist control and placebo conditions with a reduction in depression symptoms (de Melo et al., 2005) and significantly better than standard clinical management (Elkin et al., 1989; Reynolds et al., 1999). Studies examining combined treatment of IPT and medication documented a reduction of depressive symptoms, compared to either alone (Frank et al., 1990; Reynolds et al., 1999).

Numerous studies support the notion that depression interventions can shorten the time to recovery (Cuijpers, van Straten, & Smit, 2006; Gotlib & Hammen, 2002; Zalaquett & Stens, 2006). The recommended overall treatment of choice for late life depression is a combination of psychotherapy and antidepressant medication. Psychoeducation counseling and regular monitoring are recommended for clinically significant depressive symptoms that last for less than 2 weeks. If symptoms persist, then a combined approach of medication and talk therapy is recommended (Blazer, 2002).

### Pharmacological Interventions

Antidepressants are widely used for the treatment of moderate to severe depression in older adults. Based on several literature reviews of pharmacologic treatment for geriatric depression, antidepressants are safe treatments for depressed older adults (Barkin, Schwer, & Barkin, 2000; Mamdani, Parikh, Austin, & Upshur, 2000; Salzman, Wong, & Wright, 2002; Solai, Mulsant, & Pollock, 2001) (Level A). Almost all antidepressant medications are equally effective for treating major depression (Blazer, Hybel, Simensick, & Harbin, 2000; Salzman et al., 2002). Antidepressants not only shorten the duration of depressive episodes but also decrease the remission rates from depressive disorders. Yet, as older adults are prescribed numerous medications for other medical diseases, the likelihood of self-medication, multiple drug use, drug-drug interactions, and unpleasant side effects increases. In addition, certain medications (e.g., antihypertensives) may actually induce depressive symptoms in later life (Govoni, Racchi, Mascero, Zamboin, & Ferini-Strambi, 2001).

During the past two decades, there have been over 30 randomized placebo-controlled clinical trials as well as many comparative trials (das Gupta, 1998; Salzman et al., 2002) documenting the efficacy and safety of antidepressant medications (tricyclics and selective serotonin reuptake inhibitors [SSRIs]) for older adults with depression.

One trial in relatively old medically ill patients involved randomizing nortriptyline and placebo (Katz, Parmelee, Beaston-Wimmer, & Smith, 1994). This trial generally showed the efficacy of nortriptyline but with side effects including orthostatic hypotension. Thus, although nortriptyline is effective with older adults (Reynolds, Frank, Perel, Mazumdar, & Kupfer, 1995), it may have intolerable side effects for some. One large efficacy study of fluoxetine showed efficacy but with a relatively low response rate (Tollefson et al., 1994). Another study demonstrated that fluoxetine was equally effective as nortriptyline but with fewer cardiovascular side effects among a sample of late middle-aged and older adults with co-existing cardiovascular disease (Roose et al., 1997). Since the SSRIs appear to be as effective as the older tricyclic antidepressants, their use in treatment in late life depression may result in improved outcomes due to their lower side effect profile (Schneider, 1996). Naturalistic studies have shown that medically ill older adults have more adverse effects to tricyclics than to SSRIs (Cole, Elie, McCusker, Bellavance, & Mansour, 2001; Landreville, Landry, Baillargeon, Guerette, & Matteau, 2001) and that increased use of SSRIs in primary care has become common (Crystal, Sambamoorthi, Walkup, & Akincigil, 2003). Due to fewer side effects than found with other medications, SSRIs are now frequently the first line of medical treatment.

### **Minor Depression and Older Adults**

Recent attention has been given to minor (also known as subthreshold or subsyndromal) depressive disorders, though there is a dearth of research on this topic (Lyness et al., 2006; Koenig, Vandermeer, Chamber, Burr-Crutchfield, & Johnson, 2006). Various names and definitions for subthreshold depression have been given as well as duration and cutoff thresholds. One literature review summed up the definition of minor depression as a set of symptoms that do not meet the full criteria for a specific depressive disorder, yet are associated with clinically significant impairment (Pincus, Davis, & McQueen, 1999). Minor depression is generally defined as the presence of at least two but fewer than five depressive symptoms including depressed mood or anhedonia during the same 2-week period with no history of major depressive episode or dysthymia but with clinically significant impairment (American Psychiatric Association, 1994).

Minor depression is a common type of depressive disorder in older adults (Lyness et al., 2006; Oxman & Sengupta, 2002) and is observed more often than major depression in numerous settings (Charney et al., 2003; Lavretsky & Kumar, 2002; Judd, Schettler, & Akiskal, 2002). Minor depression rates ranges from 10% to 30% in older community-dwelling adults (Hybels & Blazer, 2003) and approximately 5% to 9% in primary care patients (Lyness et al., 1999). Minor depression has been found to be associated with an increased risk for mortality in older men and to have a relatively

high prevalence in some ethnic groups (Penninx et al., 1999). This subthreshold disorder is common in older minorities in primary care. As many as 15% of older Latinos, 12% of older Asian-Americans, and 10% of older African Americans meet criteria for minor depression (Arean & Alvidrez, 2001).

A recent systematic review of adults and older adults diagnosed with minor depression found remission rates in the range of 46% to 71% after 3-6 years (Hermens et al., 2004). Two studies reported that 62% of adults and older adults still had minor depression at the 5-month follow-up evaluation, whereas 16% had persistent or recurrent minor depression at the 1-year follow-up (Broadhead, Blazer, George, & Tse, 1990; Penninx et al., 1999). At 1 year, 12.7% of the adults originally with a diagnosis of minor depression developed major depression (Broadhead et al., 1990). Research has been mixed in terms of the evidence on mortality, functional impairment, and prognosis of minor depression in older adults.

CPT, IPT, and PST models appear to be promising treatments for older adults with minor depression (Rowe & Rapaport, 2006) (Level B). However, the research literature is less clear about these therapies efficacies for minor depression than for major depression, because of the dearth of treatment studies, particularly among older adults. One randomized clinical trial reported that a 6-week problem solving therapy program for minor depression in medically ill elderly significantly reduced depressive symptoms and increased personal problem solving abilities, compared to an education control (Gellis, McGinty, Tierney, et al., 2007) (Level B). Due to the heterogeneity of the few studies on minor depression, results need to be interpreted with caution. The next important challenge for practitioners and researchers is to develop agreement on the clinical definition of minor depression, and on how to diagnose and treat it in older adults, particularly with concurrent medical problems.

### **Depression Screening in Older Adults**

Social workers are likely to encounter older adults in many areas of clinical practice. Therefore, it is essential for social workers to recognize geriatric mental health problems and to provide referrals and appropriate treatment. Screening for the detection of depressive disorders involves the use of easily administered inexpensive procedures to identify older adults who may be experiencing mental health problems. The goal of screening is early identification and thus prevention through early intervention. This is critical since depression, for example, is a treatable mental health disorder with the potential for positive outcomes over time. Some criteria that social workers can use to justify mental health screening for depression in older adults include the following:

- 1) Is the incidence high enough to justify the cost of screening in an agency?
- 2) Does the problem have a significant effect on the quality of life of the older adult?

- 3) Is effective treatment available?
- 4) Are screening instruments available that are valid and cost-effective?
- 5) Are the adverse effects (if any) of screening tests acceptable to social workers and older adult clients?

The evidence provided herein clearly shows that the prevalence of depression among older adults is frequent enough and causes sufficiently serious health and social consequences to warrant screening. For depression, valid cost-effective procedures for screening exist, and treatments are effective.

Social workers can play a critical role in increasing the proportion of depressed older adults who obtain treatment. Since comorbidity of depression with health, bereavement, and other social problems is typical in the elderly, social workers are likely to encounter older adults with mental health needs in many community settings (e.g., home health care, community work, social services, senior centers, health clinics). If a depressive disorder is suspected, the social worker can screen the older person, using one of several screening tests that are readily available (detailed in Table 3.1).

**Table 3.1. Screening Tools for Identifying Depression Disorders in Older Adults in Community and Long-Term Care Settings**

<b>Screening Tool</b>	<b>Source</b>
<u>Clinician-interview Instruments</u>	
Cornell Scale for Depression in Dementia (CSDS)	Alexopoulos et al., 1988
Hamilton Rating Scale for Depression (Ham-D)	Hamilton, 1960
<u>Self-rating Instruments</u>	
Beck Depression Inventory (BDI)	Steer, Rismiller, & Beck, 2000
Center for Epidemiologic Studies Depression Scale (CES-D)	Radloff, 1977
Geriatric Depression Scale (GDS)	Sheikh & Yesavage, 1986
Patient Health Questionnaire (PHQ-9)	Kroenke & Spitzer, 2002

The standardized rating scales mentioned above assess for the presence and severity of depressive symptoms in community-based and long-term care settings. Furthermore, both long-term care staff and family members can provide additional valuable information on elderly residents.

Screening involves obtaining the person's agreement to be screened, explaining the purpose for the screening, and administering and scoring the screening tool as

instructions direct. If the screen results is positive, initial treatment referrals for further diagnostic assessment to the older person's primary care physician for possible psychotherapy and antidepressant medication should be made. The social worker is in a unique position to (a) identify resources if financial barriers exist, (b) address stigma through psychoeducation, and (c) encourage client follow through with the referral.

The provision of evidence-based mental health care to older adults poses a unique set of challenges to social work providers. Barriers to the provision of care exist at the direct practice and agency levels. Social workers should consider state-of-the-art evidence-based interventions for geriatric depression. Effective intervention options for mental health problems in later life include psychotropic medication and psychosocial interventions (CBT, PST, IPT).

Treatment protocols for late life depression are typically time-limited psychotherapeutic interventions. For depression, interventions generally range from 6 to 20 sessions, each lasting about an hour (Gellis, McGinty, Horowitz, et al., 2007; Hegel et al., 2002; Nezu, 2004; Nezu & Nezu, 2001). The goal of brief interventions is to treat the problem, specifically, changing the behavior of individuals who are experiencing mental health problems in later life. These psychosocial interventions include assessment and direct feedback, contracting, and goal setting, cognitive and behavioral techniques, and the use of written and educational materials. Unfortunately, little evidence is available on culturally appropriate mental health treatments for older adults.

## **Special Settings**

### **Late Life Depression in Primary Care**

Current depression management in primary care is suboptimal; yet, depression is prevalent at rates of 5 to 9% of the older population (Freudenstein, Jagger, Arthur, & Donner-Banzhoff, 2001). Much effort has been expended trying to improve the psychiatric skills of primary care physicians but with only modest effects (Lin et al., 1997; Rihmer, Rutz, & Pihlgren, 1995). Integration of specialty mental health care within primary care and system of care enhancements, such as "collaborative or integrative care" are found to be more effective than usual primary care alone (Meyers, 1996; Schulberg et al., 1998; Gilbody, Whitty, Grimshaw, & Thomas, 2003 (Level A). Collaborative care approaches are multifaceted intervention packages that involve nurses, social workers or depression care managers and vary in content and intensity (Katon et al., 1999; Swindle et al., 2003). These interventions often aim to increase knowledge about depression (psychoeducation), improve adherence to antidepressant medication, improve physician-patient communication, and decrease depressive symptoms (Unützer et al., 2001; Von Korff & Goldberg, 2001). One of the challenges is in

understanding which components are critical determinants of effectiveness in reducing depressive symptoms.

A systematic review of 21 studies on educational and organizational interventions to improve depression management in primary care settings found positive results (Gilbody et al., 2003). Intervention components that were found effective included enhanced nurse depression care manager role, clinician education, and improvement in communication between primary care and psychiatry liaison. However, simple documentation alone of practice guidelines and educational strategies were generally ineffective.

A recent systematic review of 22 studies on PST was undertaken to determine the effectiveness of PST on reducing depressive symptoms in noninstitutionalized adults aged 18 years and older (Gellis & Kenaley, 2007). Four studies (Ciechanowski et al., 2004; Doorenbos et al., 2005; Katon et al., 2004; Unützer et al., 2003) employed a multifaceted intervention (Level A). The IMPACT intervention included access for up to 12 months to a depression care manager, education, care management, and a choice of either medication support or PST (Unützer et al., 2002). The Pathways case management intervention (Katon et al., 2004) included enhanced education and support combined with antidepressant medication treatment by the primary care physician, or a PST intervention delivered in primary care. The PEARLS (Program to Encourage Active, Rewarding Lives for Seniors) intervention included PST, social and physical activation, and recommendations to patients' physicians regarding antidepressant medications (Ciechanowski et al., 2004). Doorenbos and colleagues (2005) administered a multimodal intervention that included problem-solving strategies, self-care management, information and decision-making, counseling and support, and communication with primary care providers. The studies found that combined use of PST and antidepressant treatment had favorable depression outcomes compared with PST alone.

Another systematic review found 34 studies of multifaceted collaborative care interventions with outcome data on depressive symptoms and 28 studies on antidepressant medication use (Bower, Gilbody, Richards, Fletcher, & Sutton, 2006). Positive effects were found on both antidepressant use and depressive symptom reduction. The studies found no variables that predicted variation in antidepressant medication use. Nonetheless, several key predictors of positive depressive symptom outcomes were found, including mental health training background of staff, systematic identification of patients, and continuous depression specialist supervision. This suggests that depression care managers have valuable expertise and experience in working with depressed patients. Additionally, these positive outcomes are associated with the managers' technical expertise such as knowledge of evidence-based psychosocial treatments and psychotropic medications, and their ability to work effectively in collaboration with other health care providers.

Blanchard and colleagues (1994) randomly allocated 96 older primary care patients with depression to either the community nurse depression care management or usual primary care practitioner. Assessments 3 months later found that the depression care management group showed improved depression scores compared with the control group of patients treated by their primary care physician.

Callahan and his group (1994) conducted a clinical trial to study physician-targeted interventions to facilitate compliance with recommended standards of care for late-life depression. Significant improvement in depression or disability severity among intervention patients was not demonstrated despite the informational support provided to their physicians. Flaherty and colleagues (1998) found that a collaborative management home care intervention for depression resulted in lower hospitalization rates (23.5%) compared to a historical control group (40.6%). A randomized controlled trial with blind follow-up evaluation 6 months after recruitment found that psychogeriatric team home care versus usual primary care improved depressive outcomes for 58% versus 25% of people 65 and over (Banerjee, Shamash, Macdonald, & Mann, 1996).

Another randomized controlled trial examined whether a decision support system in comparison to usual primary care improves outcomes for patients with depression (Dobscha et al., 2006). The depression decision support team, which consisted of a psychiatrist and nurse, provided individual patient educational contact and depression monitoring with feedback to clinicians over the course of 12 months. Findings demonstrated improved depression scores in both groups, but the decision support intervention did not generate sustained improvements in depression severity or health-related quality of life compared with usual primary care (Dobscha et al., 2006).

In a multi-site randomized controlled trial, researchers investigated if “Quality Improvement (QI)” programs in managed care practices for depressed primary care patients could improve patient care and health outcomes (Bower et al., 2006). They found that patients in QI ( $n = 913$ ) and usual care ( $n = 443$ ) clinics did not differ significantly at baseline in service use or quality of life. At 6 months, 50.9% of QI patients and 39.7% of controls were in counseling or were using antidepressant medication at an appropriate dosage ( $P < .001$ ), with a similar pattern at 12 months (59.2% vs. 50.1%;  $P = .006$ ). When these managed primary care practices implemented QI programs that improve opportunities for depression treatment without mandating it, quality of care and mental health outcomes of depressed patients improved over a year, while medical visits did not increase overall (Bower et al., 2006).

### Late Life Depression in Home Health Care

Home care services are essential to maintaining elders with disability in the community and reducing their hospitalization and nursing home use. Yet, knowledge on specific treatments for depressive disorders is limited (Brown, Kaiser, & Gellis, in

press; Bruce et al., 2002; Gellis, McGinty, Horowitz, et al., 2007; Gellis, McGinty, Tierney, et al., 2007). Compared with the general elderly population, home care recipients are older, more socially isolated, more likely to be women, and more likely to have high rates of physical illness, disability, and depression (Banerjee, 1993).

The Weill Cornell Institute of Geriatric Psychiatry estimated the prevalence of current DSM-IV major depression at 13.5% in a probability sample (N=539) of older (age  $\geq 65$ ) new patients from a home care agency (Bruce et al., 2002). These researchers found that depression was highly prevalent, and characterized by symptoms and various conditions (functional disability, cognitive impairment, and comorbid vascular disease) associated with poor outcomes (Alexopoulos et al., 1996). New York researchers at the SUNY Center for Mental Health and Aging have estimated a prevalence of clinically significant depressive symptoms at 27.5% in a probability sample (N=618) of older (age  $\geq 65$ ) community-dwelling elderly (Gellis, 2006). However, few elderly receive appropriate treatment of depression. For instance, in two studies only 21% (Brown, McAvay, Raue, & Moses, 2003) and 16% (Banerjee et al., 1996) received treatment.

The older client, treating physician, and health care organizational factors interact to impede the detection and treatment of depression, particularly among older adults (Klinkman, 1997; Meyers, 1996; Schulberg et al., 1996). From a biopsychosocial framework, the complexity of depression is reflected by variability in onset, presentation, and course, as well as functional disability, negative life events, and medical comorbidity. The heterogeneity of depression coupled with physical and cognitive impairment, social vulnerabilities, and various medical conditions prevalent in health care makes it more difficult for accurate assessment, diagnosis, and treatment in the elderly population. Older primary care patients are less likely than younger patients to voluntarily report affective symptoms of depression (Lyness et al., 1995). They are more likely to ascribe symptoms of depression to a physical illness (Knauper & Wittchen, 1994). Depressed older adults of various ethnic backgrounds are less likely to use specialty care and more likely to use the general health care system (Brown et al., 1995; Unützer et al., 1997).

To date, only two intervention studies have examined geriatric depression in home health care. A recent randomized controlled trial in home care tested the effectiveness of home-delivered PST (PST-HC) for depression in medically ill elderly over a 6-month period (Gellis, McGinty, Horowitz, et al., 2007) (Level A). Data suggested significant reductions in depression scores at post-baseline, 3 months, and 6 months, relative to the usual care condition. This suggests that the effects of treatment were maintained over a 6-month period post-baseline. Older patients also reported higher quality of life and problem-solving ability, compared to usual care patients (Gellis, McGinty, Horowitz, et al., 2007). Few studies have investigated the use of PST for minor depression (two to four depressive symptoms with one symptom being depressed mood or anhedonia) in older adults and none in home health care. Recently, one randomized trial of brief PST

was found to decrease symptoms of minor depression in older home care patients post-treatment, and the decrease was maintained over a 6-month period (Gellis, McGinty, Tierney, et al., 2007) (Level A). Homebound elderly participants in the PST group were also more satisfied with treatment than those in the control group were.

Leading researchers have pointed out the need for future studies to address critical questions about the feasibility, generalizability, and cost of treatment for depressive disorders in home health care (Bruce et al., 2002; Gellis, McGinty, Horowitz, et al., 2007; Gellis, McGinty, Tierney, et al., 2007; Katon et al., 1997; Schulberg et al., 1996); the use of brief intervention models by non-physicians (Brown & Schulberg, 1998); the management of detected patients (Coyne, Schwenk, & Fechner-Bates, 1995), and the ways to improve access to care among ethnically diverse and low-income populations (Miranda et al., 2003).

### Late Life Depression in Assisted Living

Few studies have examined depressive disorders among older adults in assisted living facilities (ALF). A recent study attempted to obtain estimates of depression and related factors, and of treatment rates for 196 ALF residents recruited from 22 facilities in Maryland (Watson et al., 2006). Most residents were widows. Results found that the majority met criteria for dementia (68%), and that 24% of the participants met the cutoff score for depression on the Cornell Scale for Depression in Dementia. Almost half (43%) of those depressed were receiving some type of antidepressant medication, while 57% of those depressed had not been referred to nor were they receiving psychiatric services. Based on the data from this study, the rate of depression among ALF residents are apparently high, and depression is often undetected or inadequately treated.

Researchers examined a large data set of assisted living residents (N=2,078 residents aged 65 and older) in 193 assisted living facilities (Watson, Garrett, Sloane, Gruber-Baldini, & Zimmerman, 2003). The purpose of the study was to determine the prevalence of depression, to examine resident characteristics associated with depressive symptoms, and finally, to investigate the relationship between depressive symptoms and nursing home placement and mortality. They found relationships between depression and cognitive impairment, agitation, recent hospitalization, dependence on others for more than three activities of daily living, psychosis, and social withdrawal. At the 1-year follow-up investigation, 370 depressed residents had been transferred to a nursing home, and 250 residents with severe depressive symptoms had died. Assisted-living residents appear to have significant rates of depression and depressive symptoms; yet, their conditions are undetected or undertreated. This setting is suitable for introducing new models of geriatric mental health service delivery to reduce the psychological burden on older residents.

A randomized trial in Australia examined the effectiveness of a population-based, multifaceted shared-care intervention for late life depression in 220 depressed

residential care residents in one large residential facility (Llwelllyn-Jones et al., 2001). All participants were cognitively intact and met the criteria for depressive symptoms on the geriatric depression scale. The shared-care intervention included 1) multidisciplinary consultation and collaboration, 2) training general practitioners and care staff to detect depression, and 3) management of depression. More specifically, the intervention sought to provide depression-related health education and activity programs for residents, to increase the detection rate of depression by care staff, to get elderly people to accept that depression is treatable, and to provide accessible treatment programs in residential care. Results found that the experimental condition had reduced depressive scores as compared to a usual care control condition at the 9.5 month follow-up point. However, generalizability to other residential facilities is difficult, and the intervention needs further descriptive detail and refinement (Level B).

One small study examined factors that contributed to depressive symptomology in 57 ALF residents (Cummings, 2002). The study reported that almost 20% of residents reported dissatisfaction in their lives and exhibited depression symptoms. A critical variable in mediating depressive symptoms was perceived social support.

### Depression in Long-Term Care / Nursing Homes

In the U.S. approximately 5% of older adults reside in long-term care facilities at any given time. Prevalence rates of depression in long-term care vary depending on study definitions and measures used. For elderly patients with major depression, rates range from 6% to 24% in nursing homes (Blazer, 2002). Prevalence estimates for minor depression and dysthymia are even higher and range from 30% to 50% in the majority of studies; and for subthreshold clinically significant depressive symptoms, the range is 35% to 45% (Hyer et al., 2005).

Researchers estimated the incidence, prevalence, and outcomes of depression in 201 long-term care residents with dementia (Payne et al., 2002). Participants who were mostly white women were given a neuropsychiatric interview and were observed for 1 year. At 6 months post-admission, 15% of the original women were still depressed, and at 12 months only 7.5% were depressed. The annual cumulative likelihood of depression over 1 year for the total group was 26.4%. The authors concluded that a significant proportion of long-term care elderly with dementia had depression. With rapid screening, accurate diagnosis, and appropriate treatment, reduction in depression symptoms is a likely outcome.

Research has demonstrated high rates of depressive symptoms among older people, particularly those with cognitive impairment and those in residential care. One study examined the prevalence of depression among older people with cognitive impairment and the extent to which depression among these individuals had previously been detected (McCabe et al., 2006). Findings regarding the prevalence of depression among older people with cognitive impairment indicated that 17.7% met criteria for a diagnosis

of MDD, based on a structured clinical interview (SCID), whereas another 38.9% had clinically significant depressive symptoms. Individuals with moderate cognitive impairment were more likely to present with MDD than were those with mild cognitive impairment. Furthermore, there was an increased prevalence of depression among dementia sufferers. There was a larger proportion of major depression among residents with moderate to severe cognitive impairment than among those with mild cognitive impairment or normal cognitive function.

Depression is a frequently comorbid condition with dementia with estimates at 30% (Evers et al., 2002; Teri & Wagner, 1992). This makes the detection and assessment of depression challenging for the clinician. A recent study focused on specific factors that might contribute to nursing home placement by examining the detection and course of coexisting dementia and depression (CDD) in elderly patients as compared with patients with either disorder alone (Kales et al., 2005). This was a 1-year prospective study comparing outcomes among 82 elderly male veterans receiving inpatient and outpatient treatment. Subjects were recruited and reassessed at 3, 6, and 12 months after baseline. This study found lower rates of depression detection by treating (i.e., non-study) physicians in CDD patients. Only 35% of the CDD group had been correctly diagnosed and had received adequate treatment. The CDD group had significantly higher levels of functional impairment when compared to the dementia-only group. The CDD subjects used nursing home care at significantly higher rates. The investigators concluded that undetected, untreated, or inadequately treated depression may result in higher rates of nursing home placement in patients with dementia due to an increase in functional disability.

Many long-term care residents present with signs and symptoms that overlap with depression (for example, anhedonia, irritability, flat affect) (Gauthier, 2003). Studies also indicate that depression is a risk factor for dementia (Alexopoulos, Meyers, Young, Mattis, & Kakuma, 1993; Lichtenberg & Mast, 2003). Therefore, consensus practice guidelines recommend that caregivers and other reliable informants be interviewed on behalf of an individual with moderate to severe dementia (American Geriatrics Society & American Association of Geriatric Psychiatry, 2003). Attention also needs to be paid to the biopsychosocial factors during assessment to obtain a clear picture of the patient. Assertive outpatient and community-based treatment of depression may also improve the course of coexisting dementia and depression and lengthen the time the patient can remain at home before nursing home placement.

Smalbrugge and colleagues (2005) examined the occurrence and risk indicators of depression, anxiety, and comorbid anxiety and depression among 333 nursing home patients in the Netherlands. Using a diagnostic research interview, they estimated the prevalence of major depression at 17.1%, anxiety at 4.8%, and comorbid anxiety and depression at 5.1%. The prevalence of depressive disorders (both major and minor) was 22.2%, and of anxiety was 9.9%. The researchers concluded that the comorbidity of

anxiety and depression is most prevalent in more severely depressed and anxious nursing home patients.

The research literature on interventions for depression in older adults residing in long-term care is sparse and deficient. Several reviews offer insights into specific psychosocial interventions for depression in long-term care (Hartz & Splain, 1997; Molinari, 2000; Norris, Molinari, & Ogland-Hand, 2003). Yet, there are limitations to the literature. First, most research studies have focused on depressive symptoms and not on specific disorders. Second, the diverse study samples of elderly makes it difficult to compare across studies. Third, the majority of studies lack a description of intervention protocols or manuals, making it difficult to understand, analyze, or replicate their treatment components. Finally, the inconsistency of follow-up evaluations across studies provides further barriers to determining long-term effects.

One randomized trial examined a control-relevant intervention versus a waitlist control for major and minor depression among 31 cognitively intact nursing home residents (Rosen et al., 1997) (Level B). The treatment group participants took part in planned activities that were held for 1- to 2-hour periods, twice a day, 5 days a week over the course of 8 weeks. The emphasis of the program varied over the 8 weeks of the intervention (socialization, weekly activity schedule, assertiveness, trips). Of the 31 participants, 14 (45%) were deemed Responders, and 17 (55%) were non-responders. None of the 11 patients on the waitlist were judged to be responders. Non-responders were depressed nursing home residents who perceived their environment as lacking in cohesiveness and support. Limitations of the study included the failure to establish the validity of the categorical assessments made by the clinical staff of the nursing home, and the study did not control for the concurrent use of psychotropic medications.

Another randomized trial compared an individual 8-week life review treatment with friendly visiting as the control on depressive symptoms in 201 nursing home residents (Haight, Michel, & Hendrix, 1998) (Level B). Results demonstrated that BDI scores were lower in the treatment group than in the control group at the 1-year follow-up examination. In a small pilot study, Hyer and colleagues (1990) compared the effectiveness of a 12-week group psychotherapy, in a cognitive behavioral format, to usual care in a small sample of 22 residents. At post-treatment, depression scores had decreased in the treatment group but not in the control group.

Researchers have recommended a combined approach to depression treatment including behavioral interventions and antidepressants (Lyketsos & Olin, 2002) (Level B). They have suggested psychosocial intervention as an initial treatment step and the introduction of medication in more severe forms of depression. For example, a randomized controlled trial by Teri and colleagues (1997) investigated two psychosocial interventions for depression in Alzheimer's patients living with their caregivers in the community. All participants met diagnostic criteria for major (n=54) or minor (n=18) depression. Seventy-two patient-caregiver dyads were randomly assigned to one of

four groups and assessed at pre-, post-, and 6-months follow-up intervals by interviewer's blinded to treatment assignment. The group conditions included (1) behavior therapy-pleasant events (BT-PE), (2) behavior therapy-problem solving (BT-PS), (3) typical care control (TCC), and (4) wait-list control (WLC). They found that patients in both behavioral treatments showed significant improvement. Caregivers in each behavioral group showed significant improvement. In contrast, caregivers in the other two conditions did not.

A few psychosocial interventions such as group and individual behavioral therapies show some potential but require further investigation, improved study design, and clear intervention protocols for duplication and treatment component analysis.

### **Summary Take Home Points**

- 1) Depression is a serious and prevalent medical illness in older adults. Effective treatment options are available.
- 2) It is important to emphasize that depression is not a necessary part of aging.
- 3) Prevalence estimates are highest for subthreshold depressive disorders with clinically significant depressive symptoms among older adults.
- 4) Depression among all older adults appears to be underdetected, or if detected, inadequately treated.
- 5) Suicide occurs almost twice as frequently in the elderly as in the general population, with white males over 80 years of age at highest risk.
- 6) Late life depressive disorders can be persistent, intermittent, and/or recurrent and can be associated with significant physical and psychological co-morbidities and functional impairments that negatively influence the course of the depressive illness
- 7) Antidepressants are widely used (particularly by primary care physicians) for the treatment of moderate to severe depression in older adults.
- 8) Psychosocial interventions are effective among older adults, particularly those who reject medication because of unpleasant side effects or those who are coping with low social support or stressful situations. Evidence-based manualized approaches, including CBT, IPT, and PST, are effective intervention alternatives or adjuncts to medication treatment.
- 9) Self-report and clinician-interview measures are available for assessing the frequency and severity of depressive symptoms in community-dwelling older adults and in those in long-term care settings. Frequently used depression assessment measures include the (1) Geriatric Depression Scale, (2) Hamilton Rating Scale for Depression, (3) Center for Epidemiologic

Studies Depression Scale, (4) Patient Health Questionnaire, (5) Beck Depression Inventory, and the (6) Cornell Scale for Depression in Dementia. However, further research is needed to validate these scales in the long-term care population.

- 10) Late life depression is prevalent in various settings where older adults receive services: primary care, home health care, assisted living, and long-term care.
- 11) In primary care settings quality improvement (QI) initiatives help in improving identification and treatment of geriatric depression. QI components that have been found effective include an enhanced depression care manager role, clinician education, and improvement in communication between primary care and psychiatry liaison.
- 12) Home health care research on treatment of late life depression has demonstrated initial positive results using PST, a type of cognitive therapy approach.
- 13) Little is known about effective treatments for geriatric depression in assisted living facilities.
- 14) In the U.S. approximately 5% of older adults reside in long-term care facilities at any given time. For elderly patients with major depression, prevalence rates range from 6% to 24% in nursing homes. Prevalence estimates for minor depression and dysthymia are even higher and range from 30% to 50% in the majority of studies; and for subthreshold clinically significant depressive symptoms, the range is 35% to 45%.
- 15) Long-term care residents are often medically or cognitively challenged with a high comorbidity of depression and dementia.
- 16) Evidence on treatment of depression in long-term care is sparse and deficient. Reminiscence therapy has been studied widely with mixed results, whereas the life review model is a more structured approach and may be more effective.

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