Mental Health Disorders in Later Life

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Introduction

Depression and anxiety disorders are common in older adults. These disorders are associated with impaired functioning, disability, and high service use and costs. Co-occurrence of depression and anxiety is common with chronic diseases. Effective psychological and pharmacological treatments are available. However, too often, depression and anxiety disorders are underdiagnosed or are not optimally treated. This chapter presents an update on the state of knowledge on depression and anxiety disorders in later life, focusing on prevalence, comorbidity, and effective evidence-based treatments.

DEPRESSION IN LATER LIFE

Depression is a frequent cause of psychological distress in older adults and significantly decreases quality of life (Gellis, 2009). Inadequate recognition and treatment of these problems at the individual level has important implications for social services, medical and mental health service use, and the allocation of healthcare resources. Less than half of elders with depression seek professional treatment from social workers, psychologists, or primary care physicians, with the majority stating that they would not seek mental health treatment in the future (Conner et al., 2010). Racial and ethnic backgrounds contribute to the likelihood of elders seeking professional treatment. Mexican Americans have lower odds for receiving any type of depression therapy despite reporting high depression severity scores (Gonzalez et al., 2010). However, African Americans are less likely to seek mental health services due to issues of mistrust and a lack of confidence in outcomes of such treatment compared with their White counterparts (Conner et al., 2010).

The provision of mental healthcare to older adults poses a unique set of service barriers. Individual barriers to seeking treatment include stigma, denial of an emotional problem, fear of health insurance loss, financial insecurity, embarrassment, isolation, being declared incompetent, language barriers, and lack of culturally sensitive programs (Center for Mental Health Services, 2004; Conner et al., 2010; Pepin, Segal, & Coolidge, 2009). Managed care is increasingly restricting the time spent by physicians with patients. Primary care physicians often report feeling too pressured for time to investigate mental
health problems in older people (Mitchell, Vaze, & Rao, 2009).

**Prevalence of Depression Disorders**

Depression is a serious medical illness in older adults and can range on a severity continuum from mild to moderate to severe. The presentation of symptoms may be mild in that they do not meet criteria for a depression disorder or manifest as severe with catastrophic or psychotic features (American Psychiatric Association, 2013). The prevalence estimates of major depression in large-scale community elderly studies are generally low, ranging from 1% to 4.6% compared with younger cohorts, with higher prevalence among women (Fiske, Wetherell, & Gatz, 2009). In medically ill older adults, estimates for major depression range from 10% to 43%, with an additional 23% experiencing significant depressive symptoms (Fiske et al., 2009). Late-life depression is associated with increased risk of lifetime chronic depression (Murphy & Byrne, 2012). The prevalence rate for dysthymia is about 2% (Lee et al., 2012). Prevalence rates for minor depression range from 10% to 30% in older community-dwelling adults (Hybels & Blazer, 2003; Thota et al., 2012) and approximately 5% to 9% in adults seen by primary care physicians (Meeks, Vahia, Lavretsky, Kulkarni, & Jeste, 2011).

In home healthcare settings, estimates range from 6.4% to 13.5% for major depression and 27.5% for subthreshold depression (Bruce et al., 2002; Gellis, 2010; Shao, Peng, Bruce, & Bao, 2011). Depression is twice as prevalent in home healthcare as in primary care (Brown, Kaiser, & Gellis, 2007). In long-term care settings prevalence rates for major depression can range from 12% to 30%, and clinically significant depressive symptoms range from 12% to 35% (McDougall, Matthews, Kvaal, Dewey, & Brayne, 2007). Prevalence rates for major and minor depression in assisted living facilities are estimated at 14% (Watson, Zimmerman, Cohen, & Dominik, 2009) and 14%-42% in nursing homes (Djernes, 2006).

While prior research (Zalaquett & Stens, 2006) has shown no significant racial or ethnic differences in prevalence rates for depression, a controlled trial (Steffens, Fisher, Langa, Potter, & Plassman, 2009) found clear racial differences in depression scores measured by the Composite International Diagnostic Interview (CIDI; Kessler et al., 1998). White and Hispanic older adults experienced nearly three times the prevalence of depression compared with African Americans (Steffens, Fisher, Langa, Potter, & Plassman, 2009). As many as 15% of older Latinos, 12% of older Asian Americans, and 10% of older African Americans meet criteria for minor depression (Arean & Alvarez, 2001).

Marital status differences have also been reported, with widowed, separated, or divorced older people having higher prevalence rates of major depressive disorders (Chou & Cheung, 2013) than those who were married. Rates for depression appear to be higher in older women than older men (Vink, Aartsen, & Schoevers, 2009).

A significant risk factor of late-life depression is suicide. Older adults account for 20% of all suicides and have a higher completion rate compared with younger cohorts, yet they make up only 13% of the population (Center for Disease Control and Prevention, 2013). The most common demographic correlates of suicide are older age, male gender, white race, and unmarried status (Lapierre et al., 2011). For older females and males aged 65 years and older, suicide rates were elevated with a ratio of 150 suicides per 100,000 (Lapierre et al., 2011). In the United States, White males age 85 and older have the highest suicide completion rates (45 per 100,000; Centers for Disease Control and Prevention, 2013). A systematic review of elderly suicide prevention programs revealed that gender-specific distinctions play a role in the seeking of treatment, with men less inclined to seek medical services (Lapierre et al., 2011).

**Comorbidity of Depression in Older Adults**

Depression has been found to be associated with the presence of comorbid medical conditions. Approximately one-quarter (24.8%) of individuals with one or two medical conditions experience depression; whereas 27.7% of individuals with three or four medical conditions manifest depressive symptoms (Spangenberg, Forkmann, Braihler, & Glaesmer, 2011). Medical illnesses known to be associated with depression include heart disease, asthma, hypothyroidism, stroke and dementia, hypertension, diabetes, cancer, chronic pain, and osteoarthritis (Chou & Cheung, 2013; Gellis et al., 2012; McCarthy et al., 2009). The most common psychiatric comorbid disorder associated with depression is anxiety (Beekman et al., 2003), and the outcomes of depression and anxiety include poor health, poorer functional status, increased medical expenses (Brown, Kaiser, & Gellis, 2010; Preyde & Brassard, 2011), increased risk for late-life depression, increased suicide rates, increased depression severity, and increased emergency department visits (Gellis, 2010, Preyde & Brassard, 2011). The prevalence of other medical problems and late-life depression also increases from illnesses and increased mortality (Brown, 2012).

**EVIDENCE-BASED INTERVENTIONS**

**Psychosocial Interventions**

A large body of evidence supports several types of psychotherapy intervention for depression in older adults (The National Institute of Mental Health, 2010). Cognitive behavioral therapy (CBT), problem-solving therapy, cognitive behavioral therapy, and life review therapy are evidence-based guidelines for depression treatment. Several meta-analyses of psychotherapeutic interventions such as brief psychotherapy, personal and reminiscence therapy, and life review therapy than placebo in improving depression among older adults (Pilowsky, Wilson, Mottram, & Varela, 2004). Randomized controlled trials have confirmed the effectiveness of both medication and psychotherapies in medically ill older adults (Brown, Kaiser, & Gellis, 2007). Gellis et al., 2007). Gellis et al., 2007). Gellis et al., 2007).
disorder associated with depression is anxiety, with 47% of all individuals with late-life depression experiencing anxiety (Beekman et al., 2000). Negative outcomes of depression and comorbid conditions include poor health, poor social support, impaired functional status, increased disability, and mortality (Brown, Kaiser, & Gellis, 2007; Lyness et al., 2006; Preyde & Brassard, 2011). Increase healthcare use is a risk for late-life depression and comorbid disorders, including increased and unplanned hospital stays, and increased emergency department visits (Kang-Yi & Gellis, 2010, Preyde & Brassard, 2011). In the presence of other medical problems, older adults with late-life depression also incur slower recovery rates from illnesses and increased mortality (Murphy & Byrne, 2012).

EVIDENCE-BASED INTERVENTIONS

Psychosocial Interventions

A large body of evidence supports the use of various types of psychotherapy in the treatment of depression in older adults (Thorpe et al., 2009). Manualized depression interventions that have been modified for older adults include cognitive-behavioral therapy (CBT), problem-solving therapy (PST), behavioral therapy, cognitive bibliotherapy, brief psychodynamic therapy, and life review therapy and have met evidence-based guidelines (Dickens et al., 2013). Several meta-analyses reported that psychotherapeutic interventions such as CBT, PST, and interpersonal and reminiscence therapy were more effective than placebo in improving depressive symptoms among older adults (Peng, Huang, Chen, & Lu, 2009; Wilson, Mottram, & Vassilas, 2008). Collaborative care models in primary care (e.g., IMPACT) have demonstrated greater improvement in depression symptoms and reduced suicidal ideation as compared with Primary Care Physician (PCP) treatment alone (Katon, Unutzer, Wells, & Jones, 2010). Several randomized controlled trials in non-specialty mental health settings such as home healthcare tested the effectiveness of home-based PST in depressed medically ill older adults (Gellis & Bruce, 2010; Gellis et al., 2007; Gellis & Kenaley, 2006). Overall robust evidence exists for reduction in depressive symptoms over time relative to usual care. Older patients with late-life depression who received PST also reported higher quality of life, life satisfaction, and problem-solving ability compared with patients who received standard home healthcare (Gellis et al., 2007).

To address individual and geographic barriers and reduce health costs, telehealth applications (defined as remote patient monitoring, Internet, audio, and video technologies to provide medical and mental health services) have been used for the past five decades (van den Berg, Schumann, Kraft, & Hoffmann, 2012). Depression treatment has been shown to be effective when integrated with telehealth technology among depressed older adults with comorbid diseases (Gellis & Kang-Yi, 2012; van den Berg et al., 2013). A recent randomized trial of the Tele-HEART program providing remote patient monitoring of cardiac disease symptoms and integrated depression care found a 50% reduction in depression symptoms over a 3-month period and cost reductions in emergency department use over a 12-month period (Gellis et al., 2012).

Past research examined the use of Internet and telephone therapy to provide depression treatment with positive outcomes (Speck et al., 2008). Since telephone therapy is generally not covered by reimbursement models, cost-benefits must be taken into consideration. Kiosses, Aren, Teri, and Alexopoulos (2010) examined the PATH depression intervention compared with usual care for cognitively impaired depressed elderly and found that depression significantly decreased over 12 weeks compared with usual care. In another randomized control trial with 138 older adults, age 50 years, participants received either PST and behavioral activation (PEARLS) or usual care, with reported improvements in depressive symptomatology for the intervention (Ciechanowski et al., 2004). The Healthy IDEAS study, examining the impact of an intervention for depression delivered by case managers in community-based agencies to 94 high-risk, diverse older adults, found that at 6 months, participants improved their knowledge significantly on how to obtain help for their depression, reported increased activity, and reported reduced pain (Quijano et al., 2007).

There is evidence that psychosocial interventions alone, including CBT and PST, are effective with older populations including minorities (Horell, 2008). Problem-solving therapy has proven efficacy among older adults in reducing depressive symptoms of moderate severity.
and impairment in executive functioning (Arean et al., 2010; Gellis & Nezu, 2011). Brief depression interventions by nonmedical practitioners have demonstrated effectiveness for homebound, frail, and medically ill populations (Gellis et al., 2007). Adjunct written educational materials for patients and family members have been shown to improve medication adherence and clinical outcomes (Wilson et al., 2008). In a series of randomized controlled trials, Gellis and colleagues (Gellis & Bruce, 2010; Gellis et al., 2012; Gellis et al., 2007; Gellis et al., 2008; Gellis et al., 2014) found robust effects in treating geriatric depression using 6 sessions of PST delivered by social workers and nurses. Other researchers found similar effects using 12 sessions of PST (Arean et al., 1993). Problem-solving therapy can also be used by therapists of different theoretical orientations (Gellis et al., in press).

**Pharmacological Interventions**

Antidepressants are reported as safe first-line treatment of depression in older adults (Chemali, Chahine, & Fricchione, 2009). Yet, as older adults are prescribed medications for medical diseases, the likelihood of self-medication, multiple drug use, drug-drug interactions, and unpleasant side effects increases. Common side effects of SSRIs include nausea, diarrhea, weight changes, sexual dysfunction, gastrointestinal bleeding, and hyponatremia (Chemali et al., 2009). Nonadherence to medications, especially antidepressants by older adults with major depression, is a major concern in treatment management (Grenard et al., 2011). In fact, between 24% and 28% of older adults are nonadherent (Keaton et al., 2009).

**Biological Interventions**

Since the mid-2000s, several advances have been made in the use of biological treatment modalities for late-life depression. Recent evidence reports positive outcomes using high-dose right unilateral electrode placement (RUL) brief pulse ECT, resulting in milder cognitive side-effects, yet having equal efficacy compared with bilateral electrode placement (BL) ECT and greater efficacy compared with lower doses of RUL ECT (Alexopoulos & Kelly, 2009). Vagus nerve stimulation (VNS) plus treatment as usual (TAU) has shown efficacy in treating resistant depression when compared with treatment as usual (Alexopoulos & Kelly, 2009). Another new and efficacious advancement is the use of deep brain stimulation (DBS), which stimulates portions of the basal ganglia, resulting in reduction of symptoms or remission of depression.

**ANXIETY DISORDERS IN LATER LIFE**

Anxiety disorders are prevalent in older adults with estimated rates as high as 14% and even higher in healthcare settings (Pincus, Dubeinstein, & Lyness, 2007). Clinically significant prevalence estimates range from 20% to 24% among older adults (Bryant, Jackson, & Ames, 2008). The prevalence of anxiety disorders among older adults is a serious public health issue, yet, they remain underdiagnosed and undertreated (Sinming, Conwell, Fisher, Richardson, & van Wijngaarden, 2012).

Anxiety disorders are often comorbid with common age-related chronic conditions such as cardiac disease, chronic pain, COPD, dementia, and Parkinson’s disease (Wolitzky-Taylor, Castriotta, Lenze, Stanley, & Craske, 2010). Research has reported that personality traits such as neuroticism and external locus of control, poor coping strategies, previous mental health problems, and stressful life events are risk factors related to both incidence and prevalence of anxiety in later life (Djernes, 2006).

**Recognition of Anxiety in Older Adults**

Recognizing an anxiety disorder in an older person poses several challenges. Aging brings with it a higher prevalence of certain medical conditions, realistic concern about physical problems, and a higher use of prescription medications. As a result, separating a medical condition from symptoms of an anxiety disorder is more complicated in an older adult. Diagnosing anxiety in individuals with dementia can be difficult, too: agitation typical of dementia may be difficult to separate from anxiety; impaired memory may be interpreted as a sign of anxiety or dementia, and fears may be excessive or out of the person’s situation.

**Prevalence of Anxiety in Later Life**

Anxiety disorders appear to be a class of psychiatric disorders more prevalent than depressive impairment (Bryant et al., 2008). A review by Wolitzky-Taylor et al. (2008) reported prevalence estimates up to 14.2% for anxiety disorders. The National Comorbidity Survey Replication (NCS-R) reported 7% of older adults having the anxiety disorder in the past year (Kessler et al., 2005). Interviews with nearly 6,000 adults reported a lifetime prevalence. DSM-IV-diagnosed anxiety disorders among persons over age 60 (Kessler et al., 2005). A study of approximately 50 tri-ethnic elders reported that 11.3% in Blacks, 12.4% in Hispanic Whites age (Goodwin, 2006).

Generalized anxiety disorder and phobias account for most anxiety-related problems (Wolitzky-Taylor et al., 2008). Rates for GAD among older adults range from 0.6% to 2.3% (Wolitzky-Taylor et al., 2008). Several reviews summarize specific anxiety disorders in epidemiological samples including agoraphobia and panic disorder, 0.1%–1.5%; and parasuicide (Vink et al., 2008; Wolitzky-Taylor et al., 2008).

The prevalence of subthreshold criteria for a specific disorder vary among older adults (60 years or older) with anxiety symptoms: 26% among older adults (60 years or older) with anxiety symptoms during the past year, often in the elderly, and dependent medical conditions such as coronary artery disease, and adjustment disorders follow stressful situations such as bereavement (Vink et al., 2008).
Depression and anxiety disorders are prevalent in older adults with 14% and even higher in non-Hispanic Whites age 75 and older (Simning, Conwell, Fisher, & Sauer, 2010). Another new and effective treatment is the use of deep brain stimulation to stimulate portions of the basal ganglia to alleviate symptoms of symptoms or remission of certain medical conditions such as COPD, dementia, and depression (Bryant et al., 2008; Wolitzky-Taylor et al., 2010). Depression disorders can exhibit as a spectrum disorder with a range from mild to severe. The efficacy of evidence-based psychosocial interventions has been tested using randomized trials for geriatric anxiety and reviewed with emerging evidence of support for their use. Recent meta-analyses found that behavioral treatments for older persons with anxiety symptoms were more effective than active control conditions (Gould, 2012; Thorp et al., 2009). No differences on gender, diagnostic targets, or treatment duration emerged in the analyses, suggesting that both women and men can benefit from behavioral interventions. Benzodiazepines can impair memory and other cognitive functions and can also cause interactions with other drugs, and toxicity (Davidson et al., 2008).

CONCLUSIONS

Depression and anxiety disorders are prevalent in later life and associated with negative outcomes. Depression disorders can exhibit as a spectrum disorder with subsyndromal symptoms not meeting

**Psychosocial Interventions for Anxiety Disorders in Later Life**

The efficacy of evidence-based psychosocial interventions has been tested using randomized trials for geriatric anxiety and reviewed with emerging evidence of support for their use. Recent meta-analyses found that behavioral treatments for older persons with anxiety symptoms were on average significantly more effective than active control conditions (Gould, 2012; Thorp et al., 2009). No differences on gender, diagnostic targets, or treatment duration emerged in the analyses, suggesting that both women and men can benefit from behavioral interventions. Treatments that are effective for anxiety disorders and symptoms included CBT and relaxation training (Wolitzky-Taylor et al., 2010).

**Pharmacological Treatment for Anxiety Disorders**

Anxiolytic medications, including benzodiazepines, are the most common treatment for late-life anxiety, likely because older patients present to primary care centers (Ravindran & Stein, 2010). Benzodiazepine users are also more likely than nonusers to experience accidents requiring medical attention due to increased risk of falls, hip fractures, and automobile accidents (Ravindran & Stein, 2010). Older patients taking benzodiazepines are also more likely than nonusers to experience adverse reactions requiring medical attention due to increased risk of falls, hip fractures, and automobile accidents (Ravindran & Stein, 2010). Benzodiazepines can impair memory and other cognitive functions and can also cause interactions with other drugs, and toxicity (Davidson et al., 2008). Although SSRIs are often used to treat geriatric anxiety, they can also cause side effects such as frequent falls, hyponatremia, weight loss, sexual dysfunction, and drug interactions (Arifken, Wilson, & Aronson, 2001; Herrmann, 2000; Kirby & Ames, 2001; Mort, 1999).
full criteria for a major depressive disorder; however, the subsyndromal symptoms can be serious and may require further assessment. Effective brief treatments are available. Geriatric anxiety prevalence rates are high and are associated with poor functioning, emotional distress, and sleep problems. Various treatments including CBT and relaxation training are generally more effective than active control conditions.

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