

Depression in the Elderly: Update on Diagnosis and Management in Primary Health Care

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Abstract

Depression in the elderly is prevalent, frequently misdiagnosed, and typically untreated. Symptom patterns of geriatric patients with depressive disease are frequently uncommon or aberrant, making diagnosis difficult. Depression can masquerade as pseudodementia, somatization, or anxiety/irritability, or it might be the underlying cause of pain syndromes and alcoholism. Depression may be a main or secondary symptom of a concurrent medical condition, such as thyroid illness and occult neoplasm, among the elderly. It is possible that common drugs, especially certain antihypertensive agents, have etiologic importance. Because there is no accurate diagnostic test, a detailed clinical evaluation is necessary. Antidepressants that are safe and effective for geriatric patients should be used to treat depressive disease in the elderly. A complete, multidisciplinary approach, including in some situations consideration of electroconvulsive therapy, is crucial. The long-term outlook for elderly depressed individuals is favorable.

Keywords: depression, elderly, diagnosis management

Introduction

Depression is a severe affective condition. It can influence your feelings, actions, and thoughts. Depression is a prevalent issue among the elderly, but clinical depression is not a normal component of aging. Late-life depression (LLD) is described as a depressive condition occurring in a patient older than 60 years, however the onset and cutoff age can vary. Clinical depression can have a substantial impact on older persons, and selecting psychotherapy and pharmaceutical treatment choices can be difficult. Depression is not a natural consequence of aging (1). Concurrent medical problems and decreased functional expectations frequently conceal the severity of disability in elderly patients (2,3). Typically, older people with depression do not present with gloomy moods, but rather with less specific symptoms such as sleeplessness, anorexia, and exhaustion. Sometimes, elderly individuals dismiss mild sadness as an appropriate response to life stress or a typical aspect of aging. This article aims to assist office-based practitioners in recognizing atypical manifestations of depression in older patients. A knowledge of these manifestations helps guide the selection of diagnostic tests and medical therapies.

Epidemiology

Depression has been discovered in 17 to 37% of older individuals seen in primary care settings, with approximately 30% of these patients classified with severe depression (1). Roughly 3 percent of community-dwelling older adults in good health suffer from serious depression, and 75 percent initially consult a primary care physician (3,4). Recurrence rates may reach 40 percent. Suicide rates among depressed patients are approximately double those of the general population. 5 Seventy-five percent of older suicide victims had seen a primary care physician during the previous month, but their symptoms were not diagnosed or addressed. In older suicide victims, depression is the most common diagnosis; in younger suicide victims, substance abuse and psychosis, alone or in combination with a mood illness, are the most common diagnoses.

A history of depression, chronic medical illness, feminine sex, being unmarried or divorced, brain disease, alcohol misuse, certain drugs, and stressful life events are risk factors for depression in the elderly. 4 Up to 15% of adult widows suffer from potentially serious depression for at least a year after the loss of their spouse. (4,5) In contrast to younger individuals with depression, elderly individuals with depression typically have a medical comorbidity (6). Major depression is more prevalent among hospitalized or institutionalized older than 70-year-old medically ill patients. Stroke (30 to 60 percent), coronary heart disease (8 to 44 percent), cancer (1 to 40 percent), Parkinson's disease (40 percent), Alzheimer's disease (20 to 40 percent), and dementia are severe or chronic diseases associated with significant rates of depression (17 to 31 percent). (4,7)

Pathogenesis

The neurobiology of depression includes a complex interaction among various biological, psychological, and social factors. There is evidence of a genetic basis for depression in persons of all ages. There also is substantial evidence that a history of depression is a risk factor for depression later in life. Elderly persons with depression have higher rates of cognitive impairment, cerebral atrophy, enlarged ventricles, leukoencephalopathy, and deep white-matter changes.

The field of neuropsychiatry is contributing to our understanding of depression in old age. Damage to frontal subcortical circuitry, particularly the striato-pallido-thalamo-cortical pathways, as a result of neurodegeneration or cerebrovascular disease has been linked to certain subtypes of late-life depression [8].

Subclinical cerebrovascular disease may also affect depression susceptibility and manifestation. Typically observed on brain imaging, cerebral atrophy, subcortical deep white matter [9], and periventricular ischemic lesions may be involved. Other radiologic manifestations of depression in later life include increased ventricular brain ratios and decreased volumes in particular brain regions [10].

Impact

As the most prevalent mental health issue among older adults, LLD has a devastating impact on patients, their families, and their communities (11). cLLD causes significant distress and is associated with a number of negative outcomes. The functional impairment caused by the disease may overwhelm caregivers and necessitate placement in an assisted living facility. LLD may also interfere with the treatment of other common geriatric medical conditions, including stroke, Parkinson's disease, and cognitive disorders (12).

Inadequate motivation hinders rehabilitation efforts and worsens outcomes. LDL is a risk factor for increased non-suicide mortality in older adults. (12,13) LLD is also associated with suicidal behavior in the elderly. Statistics Canada reports that 19.0% of Canada's 3,890 suicide victims in 2009 were over the age of 60. Older men have a higher suicide rate than older women and represent a high-risk demographic. In addition, geriatric patients may use more lethal suicide methods, as 26.0% of victims over the age of 60 died by firearm in 2009, compared to 12.0% of those aged 15 to 39. (14)

Depression exacerbates disability and diminishes quality of life. Depression in late life is associated with increased office and emergency department visits, increased drug use and cost for both prescription and over-the-counter medications, increased risk for use of alcohol or illicit drugs, increased length of inpatient stay, and overall higher costs of care (15). Late-life depression also tends to be a recurrent or persistent condition that negatively affects both medical and psychiatric morbidity and mortality (16).

Diagnosis

Depression in older adults may be difficult to identify due to the fact that older individuals may exhibit different symptoms than younger individuals. Depression can manifest differently depending on the individual and their cultural background. People from various cultures may express their emotions, moods, and mood disorders, such as depression, differently. Depression may manifest as physical symptoms in some cultures, such as aches or pains, headaches, cramps, or digestive issues. For some depressed older adults, sadness is not their primary symptom. Instead, they may be experiencing numbness or a lack of interest in activities. They may be less willing to discuss their emotions. The list below contains common symptoms. Nevertheless, because individuals experience depression differently, there may be additional symptoms not on this list. (Tables 1 & 2)

- Feelings of hopelessness, guilt, worthlessness, or helplessness
- Irritability, restlessness, or difficulty sitting still
- Decreased energy or fatigue
- Moving or speaking more slowly
- Difficulty concentrating, remembering, or making decisions
- Difficulty sleeping, waking up too early, or oversleeping
- Eating more or less than usual, typically with unplanned weight gain or loss
- Thoughts of death or suicide, or attempts at suicide

When both predisposing and precipitating risk factors are considered, it is easier to detect depression in later life. Prior clinical depression, physical and chronic disabling illnesses (e.g., cerebrovascular disease), problematic substance use (including multiple medications and alcohol), and persistent sleep problems are risk factors. Psychosocial predisposing risk factors include female gender, personality traits such as dependency, widowhood or divorce, social disadvantage, lack of social support, and caregiving responsibilities for others with serious illness. (17)

Recent bereavement, a change in residence (such as from a house to a nursing home), and adverse life events are risk factors for LLD (e.g., loss, separation, financial crisis, declining health, marital problems). Screen recently bereaved patients for LLD and make a clinical determination regarding depression based on the patient's history and cultural norms regarding the expression of grief after loss. (17)

Multiple persistent complaints of pain, headache, fatigue, insomnia, gastrointestinal distress, and weight loss are among the help-seeking behaviors suggestive of LLD. There may be frequent calls and visits to the family doctor, as well as high service utilization. (18) Hospitalized patients who have undergone coronary artery bypass graft surgery, myocardial infarction, stroke, or hip fracture, as well as those who experience delayed recovery or refuse treatment or discharge, should be evaluated for LLD. When patients present with apathy, withdrawal, isolation, failure to thrive, agitation, and delayed rehabilitation, LLD should

be considered in the care facility. Somatic symptoms are strongly associated with depression in older patients with both LLD and physical illness. (19)

Generally, the DSM-5 criteria can be used to diagnose LLD. However, contextual obstacles must be taken into account. The "markedly diminished interest or pleasure" criterion may overlap or be confused with the apathy of dementia (classified as a major neurocognitive disorder in DSM-5) or another neurological illness. A physical illness or significant neurocognitive disorder can also lead to weight loss and a decreased appetite. Physical illness, chronic pain, or the use of substances such as opioids can cause sleep disturbances. A physical or neurological illness may cause psychomotor retardation, fatigue, and anergia. End-of-life concerns may be responsible for feelings of worthlessness and suicidal ideation.

Two diagnostic screening tools for LLD are available. The Geriatric Depression Scale (GDS), a validated self-assessment questionnaire, is offered in both a 30-item long-form and a 15-item short-form. The long form uses a cutoff score of 11 points to diagnose depression, while the short form uses a cutoff score of 7 points (20, 21) (table 3). The GDS is accessible online for free in numerous languages. Unfortunately, its reliability decreases as cognitive impairment worsens[22], in which case the Cornell Scale for Depression in Dementia (CSDD) is recommended (23). The CSDD relies on interviews with both the patient and a family member or caregiver, and is validated for use with patients with or without dementia.

Treatment

65 to 75 percent of elderly patients can be treated for depression (24). A biopsychosocial approach, combining pharmacotherapy and psychotherapy, is required for effective management (25). In general, therapy results in enhanced quality of life, increased functional capacity, possible improvement in medical health status, increased longevity, and decreased health care costs. There should be improvement as early as two weeks following the initiation of therapy, but full therapeutic effects may take several months. Recovery from a severe episode of depression typically takes between six and twelve months. According to studies, older depressed patients benefit most from aggressive, persistent treatment (25). Therefore, older patients should receive treatment for longer durations than younger patients typically do (24).

Successful treatment of depression in older adults depends on a number of factors, including addressing comorbid conditions, customizing pharmacologic or other interventions to the individual patient, monitoring therapy for side effects and efficacy, and ensuring close follow-up. Patients who have failed multiple antidepressant trials or have a preference for nonpharmacologic treatment should consider consulting with a mental health specialist.

Once late-life depression has been diagnosed, management options can be considered. There is good evidence to support the use of psychotherapy or pharmacotherapy alone, and the two in combination. For milder forms of

Table 1. Classic symptoms of depression in the elderly

- Depressed mood
- Diminished interests or pleasure in activities
- Weight and appetite disturbance
- Insomnia or hypersomnia
- Psychomotor change
- Fatigue/energy loss
- Guilt/low self esteem
- Concentration problems/indecision
- Anxiety
- Thoughts of death/suicide

Table 2. Atypical presentations of depression in the elderly

- **Cognitive deficit/pseudodementia**
- Pain syndromes
- Somatization
- Anxiety/irritability
- **Alcohol abuse**

Table 3. The 15-item Geriatric Depression Scale, also showing questions for the 4- and 5-item scales

Instructions: Choose the best answer for how you have felt over the past week.

1	Are you basically satisfied with your life?	Yes/No (No)
2	Have you dropped many of your activities and interests?	Yes/No (Yes)
3	Do you feel your life is empty?	Yes/No (Yes)
4	Do you often get bored?	Yes/No (Yes)
5	Are you in good spirits most of the time?	Yes/No (No)
6	Are you afraid something bad is going to happen to you?	Yes/No (Yes)
7	Do you feel happy most of the time?	Yes/No (No)
8	Do you often feel helpless?	Yes/No (Yes)
9	Do you prefer to stay at home, rather than going out and doing new things?	Yes/No (Yes)
10	Do you feel you have more problems with your memory than most?	Yes/No (Yes)
11	Do you think it is wonderful to be alive now?	Yes/No (No)
12	Do you feel pretty worthless the way you are?	Yes/No (Yes)
13	Do you feel full of energy?	Yes/No (No)
14	Do you feel that your situation is hopeless?	Yes/No (Yes)
15	Do you think most people are better off (in their lives) than you are?	Yes/No (Yes)

The answers shown in parentheses indicate possible depression.

Possible cut-offs: ≥ 5 for the 15-item version

LLD, psychotherapy may be recommended as a stand-alone treatment, with the addition of pharmacotherapy if required. For moderate severity LLD, antidepressant treatment is recommended, with the addition of psychotherapy if required. For severe LLD, antidepressant treatment and referral to mental health services are recommended.

A thorough medical history will inform treatment decisions. In managing depression in older adults, the following aspects of the patient's past are of particular importance: Assessment for suicidality, including ideation and plan; (lethality, intent, and means). Acute suicidal ideation requires urgent psychiatric referral [26].

Psychotic symptoms, hopelessness, insomnia, and malnutrition are evaluated.

Determination of whether the patient is abusing alcohol or medications with depressant side effects (benzodiazepines, CNS depressants, opiates, and other pain medications). Consider other medical conditions frequently associated with depressive symptoms, such as undiagnosed thyroid disease or diabetes. Moreover, pain syndromes can impede treatment response in depression and should be treated concurrently with the depression [27].

Determination of prior depressive episode history, age of depression onset, prior drug therapy and outcome, and prior remission duration, if achieved.

Determination of a familial history of depression and family medication response. Compared to the general population, older patients with mild depressive symptoms and first-degree relatives with a confirmed depression diagnosis are 1.5 to 3 times more likely to develop depression [28].

Psychotherapy, pharmacotherapy, electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), and collaborative care approaches are current treatments for depression in older adults. (29-31) In addition, some evidence suggests that aerobic and supervised group exercise programs can reduce depressive symptoms in older adults. (32).

Psychotherapy and somatic therapy are the first-line treatments for depression (medication or electroconvulsive therapy [ECT]). A meta-analysis of 89 controlled studies involving older adults with varying degrees of depression (major depression, minor depression, and dysthymia) revealed that well-designed randomized studies were scarce, but that the overall effect size of psychotherapy or medication was moderate to large and roughly equivalent [33]. The treatment chosen will depend on the severity, type, and duration of the depressive episode, as well as contraindications, treatment accessibility, and patient preference. Psychotherapy and pharmacotherapy can be used individually or in tandem [34]. Pharmacotherapy is recommended for moderate to severe forms of depression. The combination of pharmacotherapy and psychotherapy may be most effective for chronic forms of depression [35].

Multiple studies indicate that treatment programs that offer a choice of medication and/or psychotherapy in primary care, frequently combined with patient outreach by a care manager in a collaborative care model, have significantly better outcomes than standard care [36,37].

Based on meta-analyses of randomized trials [38], antidepressants are effective for depression in later life. A patient-level data meta-analysis of seven randomized trials (n = 2283 patients) comparing antidepressants (bupropion, citalopram, duloxetine, escitalopram, fluoxetine, or paroxetine) with placebo found that response (reduction of baseline symptoms 50 percent) occurred in more patients who received active treatment than placebo (49 vs. 40 percent) [39]. Response was associated with duration of illness (current age minus age at onset of depression), such that response was greater in patients with a duration of illness >10 years compared to patients with a duration of illness 2 years.

Although antidepressants are effective for major depression in late life, their efficacy may be less robust in older patients than in younger ones. In a meta-analysis of 15 randomized trials, antidepressants were compared to placebo in 4756 patients aged 55 or older (mean age 70 years). Response was greater with antidepressants (relative risk of 1.3, 95% confidence interval [CI]: 1.2-1.5) [38]. In contrast, in the subgroup of patients with a minimum age of 65 or 75 years (mean age 74 years; six trials; 1,840 patients), the response to antidepressants and placebo was comparable. Both analyses were limited by heterogeneity across pooled trials, the absence of trials focusing on patients older than 80 years, and the exclusion of patients with more severe depression.

A meta-analysis of patient-level data from four randomized trials compared fluoxetine (10 to 30 mg per day) versus placebo in 960 geriatric patients (older than 60 years) treated for six weeks [40]. Although fluoxetine improved rating scale scores more than placebo, response and remission were comparable between the two groups. In addition, a separate analysis of adults (12 trials, 2635 patients) revealed that the improvement in rating scale scores for adults was nearly double that of elderly patients.

In a subsequent randomized trial, duloxetine was compared to placebo in 299 patients aged 65 or older [41]. Remission rates were comparable between groups (approximately 50 percent).

Physical activity may be an effective treatment for mild or major depression in older adults [42]. Major depressive disorder patients may find it difficult to engage in an exercise program and would likely benefit from concurrent pharmacotherapy or psychotherapy.

Barriers and Outcomes

Attributing depressive symptoms to “normal” aging or physical illness, masking the effects of coexisting medical conditions, self-medication (e.g., alcohol use), prescription drug use, poverty and low socioeconomic status (which restrict health care access), bereavement, social isolation and lack of family support, misdiagnosis of depression as dementia, hypochondriasis, somatization, cost issues, time constraints, and the stigma associated with mental illness. Instead of relying on the patient to report mood changes, clinical experience suggests that physicians who look for symptoms of depression rather than relying on the patient to report them have higher rates of recognition and therapeutic response.

Numerous primary care physicians grossly underestimate the extent to which elderly depressed patients will respond to antidepressant medication, psychotherapy, or ECT. The prognosis for recovery is identical for young and elderly patients, although older patients may require longer to achieve remission. The majority of patients recover (54 to 84 percent), 12 to 24 percent relapse, and 4 to 28 percent remain ill or disabled. Recuperation rates are halved in patients with psychotic depression, while relapse and disability rates are double those of patients with nonpsychotic depression. When prescribing antidepressants, close monitoring and review of side effects are crucial, as up to 40 percent of patients discontinue use within two weeks and up to 70 percent discontinue use within four weeks.

Conclusions

Clearly, the elderly patient is at risk for developing depressive symptoms, which frequently manifest atypically in this population. A number of factors complicate the diagnosis of depression or other affective illness in the elderly, including the prevalence of associated cognitive deficits and the tendency of these individuals to not complain about mood changes. When a patient denies depression, it is crucial to look for symptoms and signs consistent with the so-called “masked depressions” described in this article. In addition, when a depressive syndrome is identified, clinicians must investigate the possibility of concomitant medical illness or medication use that may have etiologic significance. According to the available data, psychotherapy, pharmacotherapy, and ECT are effective treatments for depression in older adults. Emerging evidence also supports the effectiveness of ketamine, rTMS, and collaborative care approaches. The prompt identification of depression and the early initiation of treatment will aid in enhancing outcomes and minimizing suffering among this vulnerable population.

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