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The Hidden Struggle: Depression Among Seniors

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ABSTRACT

Introduction: This review paper aims to provide a comprehensive analysis of the prevalence, underlying determinants, and treatment modalities of depression in older adults, highlighting the roles of both pharmacological and non-pharmacological interventions.

Materials and Methods: A comprehensive review of the literature was conducted using the PubMed and Google Scholar databases using the following keywords: "geriatric depression", "late-life depression", "elderly depression", "depression treatment", "psychotherapy", "exercise", "electroconvulsive therapy".

Summary: Depression, especially in older adults, is a serious psychiatric disorder characterized by persistent low mood and loss of interest. Despite its high prevalence, it often remains underdiagnosed and undertreated in this age group. Risk factors include chronic illnesses, social isolation, and bereavement, while protective factors involve physical activity, resilience, and social support. Effective management requires a multidisciplinary approach combining pharmacotherapy - primarily SSRIs and SNRIs - with non-pharmacological interventions such as psychotherapy, exercise, and electroconvulsive therapy for severe cases. Regular monitoring and individualized treatment adjustments are essential for improving outcomes in elderly patients with depression.

Conclusions: Depression in older adults is a prevalent and frequently underrecognized condition that adversely affects their health and quality of life. Successful management requires a multidisciplinary approach that integrates appropriate pharmacological treatments with nonpharmacological strategies such as psychotherapy and physical activity. Personalized treatment plans and regular monitoring are crucial to achieving better clinical outcomes and reducing the overall burden of depression in the elderly.

Keywords: "geriatric depression", "late-life depression", "elderly depression", "depression treatment", "SSRI", "electroconvulsive therapy", "psychotherapy", "exercise"

Introduction

Depression is a psychiatric disorder marked by sustained low mood and a diminished ability to experience pleasure or interest in previously rewarding activities. Major depressive disorder (MDD) is a multifactorial condition, arising from an interplay of genetic predispositions and environmental influences. Epidemiological studies indicate that first-degree relatives of individuals with MDD exhibit approximately a threefold increased risk of developing the disorder compared to the general population. Nonetheless, the onset of

depression is also observed in individuals without any familial history, underscoring the contribution of non-heritable factors [1]. Statistical Manual of Mental Disorders (DSM-5) defines Major Depressive Disorder by the presence of either a depressed mood or a marked loss of interest or pleasure in activities, accompanied by at least five of the following symptoms: significant changes in appetite or weight (5% of total body weight), sleep disturbances, changes in energy, concentration, and psychomotor activity, feelings of excessive guilt or worthlessness, and recurrent thoughts of death or suicide. These symptoms must cause clinically significant impairment in social, occupational, or other important areas of functioning and be present during the same two-week period [2]. Late-life depression exhibits distinct characteristics compared to depression in younger populations. Notably, the genetic or familial predisposition to mood disorders is less pronounced in late-life depression than in cases arising earlier in life [3]. In contrast to other health domains, the prevention of depressive and other psychiatric disorders in older adults remains underemphasized [4]. Depression in older adults is commonly underdiagnosed and undertreated. Late-life depression (LLD) can be differentiated based on the age at which the initial depressive episode manifests. Early-onset depression (EOD) denotes the continuation or recurrence of a depressive disorder originally diagnosed during adulthood, whereas late-onset depression (LOD) refers to a depressive syndrome that arises de novo in later life [5]. Despite its high prevalence among the elderly, depression remains undiagnosed in nearly 50% of cases [6]. Yet robust empirical evidence demonstrates that such conditions not only markedly diminish quality of life but are also associated with increased mortality. Moreover, depressive symptoms are linked to a reduction in disability-free life expectancy, and they substantially elevate the risk of requiring long-term care in later life. Additionally, these symptoms are a significant risk factor for falls and are closely associated with frailty [4]. Barriers to effective treatment of late-life depression occur at the patient, clinical, and organizational levels. Patients often present with somatic rather than emotional symptoms, may deny or misattribute depressive symptoms to normal aging, and frequently have limited knowledge of depression and its treatments [7]. Depressive disorders in the elderly often follow a more protracted clinical course and demonstrate reduced responsiveness to pharmacological treatment when compared to younger populations. Comorbid medical conditions and cognitive impairments are believed to contribute to the diminished therapeutic efficacy of antidepressants in this age group [8]. Although prevalence rates vary considerably across different countries and elderly populations, the majority of studies have demonstrated a strong association between

depression in older adults and diminished cognitive function, increased comorbidity, greater severity of disability, and lower socioeconomic status [9].

Epidemiology

The World Health Organization estimates that around 350 million people experience depression, and more than 800,000 individuals die by suicide each year [9]. Major depressive disorder represents the most prevalent psychiatric condition in the United States and constitutes the primary risk factor for suicidal behavior. Epidemiological data indicate an increase in the prevalence of depression within the U.S. population from 6.6% in 2005 to 7.3% in 2015, corroborating findings from additional studies. The most pronounced prevalence escalations during this decade were documented among adolescent populations as well as individuals situated at both extremes of the socioeconomic spectrum. In 2020, 9.2% of the U.S. population aged 12 years and older experienced a major depressive episode within the preceding year. The highest prevalence was observed among young adults aged 18–25 years (17.2%), followed by adolescents aged 12–17 years (16.9%) [10]. The prevalence rate in females is approximately twofold higher compared to males [11]. Recent meta-analyses examining the prevalence of depression among individuals aged 60 years and older estimate that, globally, 28.4% experience depressive symptoms based on standardized questionnaire cut-off scores, while 13.3% meet the diagnostic criteria for major depressive disorder [12]. A meta-analytic review encompassing 24 studies with cohorts aged 75 years and older demonstrated that the prevalence rates of depression in males relative to females varied from 1 to between 1.4 and 2.2 [13].

Risk factors and protective factors

The identification of risk and protective factors associated with depression in the elderly population is essential for the implementation of effective preventive measures and for optimizing comprehensive management of the disorder. Evidence from the literature suggests that the presence of chronic medical conditions, cognitive impairments, inadequate social and emotional support networks, social isolation, caregiving for chronically ill relatives, and bereavement are significant contributors to the development of depressive symptoms in older adults [5]. Depressive symptoms in older adults have been found to be significantly associated with advancing age, female gender, living alone, marital dissolution, lower educational attainment, functional impairments, comorbid physical conditions, mild cognitive deficits, as well as tobacco and alcohol use. Consistent with patterns observed in younger populations, the prevalence of depression remains higher among women in later life, who also exhibit a

greater propensity to seek medical assistance. Contributing factors to late-life depression include loss of life purpose, separation or divorce, deteriorating physical health, diminished capacity for self-care, and financial hardship. Among these, bereavement - particularly the loss of a spouse - has been reported as the most significant risk factor for major depressive episodes, followed by the presence of chronic medical conditions [3]. Protective factors - against depression include high self-esteem, resilience, and personality traits such as extroversion, alongside effective emotional regulation, a positive perception of aging, strong self-efficacy, a heightened sense of personal control, adaptive coping strategies, engagement in hobbies, religious involvement, and regular physical activity [5].

Symptoms

Older adults may not consistently exhibit the classic symptoms of depression, and a subset may deny experiencing feelings of sadness. Primary care clinicians should therefore remain vigilant for atypical presentations and assess for alternative manifestations such as anhedonia, diminished motivation, somatic complaints without clear medical etiology, reduced energy levels, or persistent fatigue. In medically ill elderly populations, depressive symptoms are frequently underrecognized, as they are often attributed to coexisting medical conditions. Many clinical manifestations of depression - such as decreased energy levels, fatigue, loss of appetite, and sleep disturbances - overlap with symptoms commonly observed in somatic illnesses [7]. In persons of advanced age, the clinical presentation of depression is frequently obscured by cognitive impairments, particularly memory deficits, accompanied by symptoms of distress and anxiety; however, these manifestations are often secondary to the underlying depressive disorder. Numerous epidemiological studies conducted in community settings have demonstrated that depression in persons of advanced age is associated with a range of adverse complications. Moreover, depression exacerbates functional impairments attributable to comorbid physical illnesses, compromises the efficacy of medical treatment and rehabilitation efforts, and contributes to a progressive decline in overall physical functioning [6]. In geriatric populations, depressive episodes are more commonly characterized by cognitive impairments compared to depressive disorders manifesting in earlier stages of adulthood. Furthermore, depression may contribute directly to the deterioration of cognitive abilities [14]. While the prevalence of suicidal ideation tends to decline with age, older adults who experience such thoughts are at a higher risk of acting upon them and completing suicide compared to younger individuals. Advanced age has been significantly correlated with more deliberate, well-

planned suicidal behaviors and a reduced likelihood of expressing warning signs or disclosing suicidal intent [15].

Management

The treatment of depression in elderly individuals should be multidisciplinary, incorporating both pharmacological interventions and evidence-based non-pharmacological strategies, including physical activity when appropriate [9].

Pharmacotherapy

When choosing an antidepressant for older adults, factors like past treatment response, depression type, other health issues, medications, and overdose risk must be considered. Care should be taken to avoid medications that worsen existing conditions or cause side effects, especially those with strong anticholinergic properties. Tricyclic antidepressants are usually avoided because of their high risk of overdose [16].

Selective serotonin reuptake inhibitors (SSRIs) are widely recognized as first-line pharmacological treatments for depression in older adults [17]. SSRIs are generally better tolerated in elderly patients compared to many other types of antidepressants. However, despite their relative safety, SSRIs must be prescribed with caution because they are associated with an increased risk of gastrointestinal bleeding and other hemorrhagic events, such as hemorrhagic stroke [9]. Additionally, the use of SSRIs in late-life depression is associated with an increased risk of falls and hyponatremia (often related to syndrome of inappropriate antidiuretic hormone secretion) [17]. It is recommended to monitor serum sodium concentrations approximately one month after initiating SSRI therapy, particularly in older adults concurrently using medications such as diuretics, which are known to elevate the risk of hyponatremia. Certain SSRIs require particular caution. Fluoxetine is generally avoided in seniors owing to its prolonged elimination half-life, which increases the likelihood of sustained adverse effects and complicates dose adjustments [16]. Paroxetine is generally avoided due to its significant anticholinergic burden, while citalopram poses a risk of QTc interval prolongation [17].

Duloxetine, a serotonin-norepinephrine reuptake inhibitor (SNRI), has demonstrated efficacy in the treatment of both depression and chronic pain among elderly patients, encompassing neuropathic pain such as diabetic neuropathy and chronic musculoskeletal pain. Venlafaxine, also an SNRI with a favorable safety profile, is utilized for symptomatic management of neuropathic pain through modulation of spinal nociceptive pathways [9]. The initiation of

venlafaxine therapy has been associated with an elevated risk of hyponatremia. Furthermore, venlafaxine may induce increases in blood pressure, underscoring the importance of vigilant cardiovascular monitoring throughout the course of treatment [18].

Other medications, such as mirtazapine, bupropion, and trazodone, are also used in the treatment of depression accompanied by pain, and are generally considered relatively safe for use in elderly patients [9]. Bupropion may increase the risk of seizures, particularly at higher doses or in individuals with predisposing factors [18].

Nonpharmacological interventions

Electroconvulsive therapy (ECT) is highly effective for major depression in older adults, with remission rates of 60–80%. It is recommended for psychotic depression, treatment-resistant cases, severe non-psychotic depression, and patients with nutritional issues. ECT is safe in those with Parkinsonism, dementia, or stroke. Combining ultrabrief pulse ECT with venlafaxine achieves remission in about 62% of patients and is well tolerated. Maintenance ECT with venlafaxine and lithium improves long-term outcomes compared to medication alone [9]. Electroconvulsive therapy is traditionally indicated for severe major depressive disorder (MDD), yet evidence suggests that its combination with venlafaxine demonstrates efficacy in treating moderate-severity MDD. This supports the potential reconsideration and expansion of current ECT treatment criteria to encompass patients presenting with moderate forms of MDD [19].

Psychotherapy is the first-line treatment for mild to moderate depression. Meta-analyses show a 48% response rate versus 19% in controls, with no significant efficacy differences among cognitive behavioral therapy (CBT), behavioral activation, and interpersonal psychotherapy. Therapy choice should be tailored to patient needs - interpersonal therapy for relational issues, behavioral activation for motivation, and CBT for cognitive distortions. Telephonic and internet-based therapies are effective alternatives when in-person care is unavailable. Lack of improvement after six weeks warrants reconsideration of treatment approach, pharmacotherapy initiation, or psychiatric referral [20].

Studies showed that exercise has a significant antidepressant effect in older adults, particularly moderate-intensity workouts. Combining aerobic and strength training was more effective than either alone, and both supervised and unsupervised exercises were beneficial, especially for those without major health issues. Vigorous exercise was less effective, possibly

because it is more demanding for older adults. Group exercises reduced depression, while individual sessions did not, emphasizing the role of social interaction [21].

Summary

Depression is a complex psychiatric illness arising from an interaction of genetic, environmental, and psychosocial factors. In older adults, depression often presents with unique clinical features distinct from those seen in younger populations, leading to challenges in diagnosis and treatment. Late-life depression (LLD) is frequently underdiagnosed and undertreated despite its high prevalence among the elderly. Epidemiological studies estimate that approximately 28% of older adults experience depressive symptoms, with around 13% meeting criteria for major depression. Key risk factors for depression in this age group include chronic medical illnesses, cognitive decline, social isolation, bereavement - particularly loss of a spouse - and functional impairments. These risk factors often compound, increasing both the likelihood and severity of depressive episodes. Protective factors such as high self-esteem, psychological resilience, positive attitudes towards aging, strong social support, adaptive coping strategies, and regular physical activity help mitigate the risk and severity of depression in late life. Clinically, depression in older adults may not manifest with typical symptoms such as overt sadness, but rather with anhedonia, fatigue, somatic complaints, and cognitive deficits, which complicate recognition. Additionally, depression exacerbates existing physical illnesses, impairs rehabilitation efforts, and is associated with increased disability. While suicidal ideation may decline with age, older adults exhibiting such thoughts are at a higher risk of suicide completion due to more deliberate planning and less overt warning signs. Management of depression in older adults requires a comprehensive, multidisciplinary approach tailored to individual patient needs. Pharmacological treatment primarily involves selective serotonin reuptake inhibitors (SSRIs) because of their relatively favorable side effect profile, although clinicians must be vigilant for adverse effects such as hyponatremia, increased risk of bleeding, and falls. Other antidepressants like serotonin-norepinephrine reuptake inhibitors (SNRIs) and adjunctive medications (mirtazapine, bupropion) are useful depending on comorbid conditions and symptomatology. Nonpharmacological interventions, including psychotherapy - especially cognitive behavioral therapy, behavioral activation, and interpersonal therapy - have demonstrated significant efficacy, particularly for mild to moderate depression. Remote delivery modalities such as telephone and internet-based therapy increase accessibility. Physical exercise, especially moderate-intensity combined aerobic and strength training, produces notable antidepressant

effects and additionally promotes social engagement when performed in groups. Electroconvulsive therapy (ECT) remains the most effective option for severe, psychotic, or treatment-resistant depression, with high remission rates and a good safety profile in elderly populations. In conclusion, late-life depression represents a serious public health concern that demands increased awareness, early detection, and personalized, integrative treatment strategies. Addressing this condition effectively can significantly improve quality of life, functional independence, and reduce mortality among older adults. Preventive strategies targeting modifiable risk factors, promoting resilience, social connectedness, and physical activity are essential. Integrated care models that combine medical, psychological, and social support components hold the greatest promise for reducing the burden of depression in aging populations and enhancing overall mental health outcomes.

Disclosure

Author's contribution

Conceptualization: Magdalena Jabłonowska

Methodology: Paulina Grzeszczuk

Formal analysis: Magdalena Jabłonowska

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