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Review

Late-life depression in the primary care setting: Challenges, collaborative care, and prevention

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ABSTRACT

Late-life depression is highly prevalent worldwide. In addition to being a debilitating illness, it is a risk factor for excess morbidity and mortality. Older adults with depression are at risk for dementia, coronary heart disease, stroke, cancer and suicide. Individuals with late-life depression often have significant medical comorbidity and, poor treatment adherence. Furthermore, psychosocial considerations such as gender, ethnicity, stigma and bereavement are necessary to understand the full context of late-life depression.

The fact that most older adults seek treatment for depression in primary care settings led to the development of collaborative care interventions for depression. These interventions have consistently demonstrated clinically meaningful effectiveness in the treatment of late-life depression. We describe three pivotal studies detailing the management of depression in primary care settings in both high and low-income countries. Beyond effectively treating depression, collaborative care models address additional challenges associated with late-life depression. Although depression treatment interventions are effective compared to usual care, they exhibit relatively low remission rates and small to medium effect sizes.

Several studies have demonstrated that depression prevention is possible and most effective in at-risk older adults. Given the relatively modest effects of treatment in averting years lived with disability, preventing late-life depression at the primary care level should be highly prioritized as a matter of health policy.

Contents

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1. Clinical presentation and challenges in the primary care setting: introduction

Depression is among the leading causes of illness-related disability and is projected to be the greatest contributor to disease burden in 2030 in high-income countries [1]. Estimated depression prevalence rates among aging populations range between 1 and 3% in the community and 6 and 9% in primary care (PC) settings [2]. Given the prevalence of late-life depression (LLD), and the preference of older adults to seek out treatment in PC settings [3], it is important to recognize the challenges surrounding the diagnosis and treatment of LLD faced by primary care physicians (PCP's). Additionally, one should understand the evidence-based strategies designed to mitigate these challenges.

This review aims to: (1) characterize the clinical presentation of LLD and the challenges often encountered by the primary care physician (PCP); (2) provide the rationale for the development of collaborative care models and present three pivotal studies highlighting their effectiveness in treating depression; and (3) describe relevant literature in LLD prevention.

2. Associated risks

Recognition of LLD is paramount as its consequences can be life threatening. Depression increases the risk for first-ever stroke and myocardial infarction [4], and increases mortality in patients with coronary heart disease [5] and various forms of cancer [6]. Depression has been identified as a risk factor for all-cause dementia including both vascular dementia and Alzheimer's disease [7]. Depression remains *the* major risk factor for suicide in old age. Indeed, older adults successfully attempt suicide at higher rates than any other age group and these rates continue to rise in many countries. Even after suicide is accounted for, LLD is associated with increased rates of mortality [8].

3. Clinical presentation of LLD

LLD refers to older adults whose mood disorder presented either in earlier life or is now present for the first time in late-life. The diagnostic criteria for major depression are identical for both older and younger patients. However, LLD includes some features that make it unique among mood disorders. First, LLD tends to have a more chronic course including transient recoveries and frequent relapses. LLD is often accompanied by cognitive impairment, dementia and other chronic medical conditions. Finally, a myriad of social factors commonly experienced in late-life such as bereavement may influence the identification and treatment of LLD.

3.1. Medical burden

LLD is often accompanied by significant medical burden and disability. In fact, as the number of health conditions and their attendant disability increases, so does MDD prevalence [9]. Depressed older adults are more likely to have poor treatment adherence for medical conditions such as diabetes and cardiovascular disease [10].

Compared to non-depressed elders, those with LLD had nearly twice the number of doctor's appointments, spent nearly twice as many days in the hospital over the expected length of stay and were almost twice as likely to receive five or more medications [11,12].

The preponderance of medical conditions seen in late-life may help explain why PCP's identify less than half of LLD cases [13]. Many symptoms (ex. fatigue and sleep disturbance) of medical conditions in late-life mimic depressive symptoms. Additionally, PCP's are more likely to be presented with less severe and vague symptom profiles which may further obscure depressive symptoms.

The extent of medical comorbidity in those with LLD impacts treatment efficacy. In a study of maintenance pharmacotherapy for LLD, participants with fewer and less severe coexisting medical illness showed lower rates of recurrent episodes of major depression than those with more numerous and severe coexisting medical illness [14].

3.2. Cognitive impairment

Cognitive impairment may complicate the identification and treatment of LLD. Cognitive impairment often develops after the onset of mood symptoms, and has been detected in 40–60% of non-demented individuals with LLD [7]. These impairments often persist after treatment and symptom remission [7]. The deficits are seen across various cognitive domains, namely, executive function and information processing speed [15].

3.3. Treating late-life depression and cognitive impairment

Treating depression in the context of cognitive impairment can be challenging. In a study of recently remitted older adults with depression, donepezil and maintenance antidepressant therapy was compared to placebo and maintenance antidepressant therapy. The donepezil group temporarily improved global cognition and showed a lower rate of conversion to frank dementia, but was more likely to experience recurrent major depression compared with the placebo group [16]. Therefore, the risk of increased recurrence of depression must be weighed against the benefit of reduced rate of dementia conversion when using cholinesterase inhibitor augmentation to treat LLD with mild cognitive impairment.

A meta-analysis [17] investigated the efficacy of antidepressants for the treatment of depression in patients with both depression