Our Mission: Helping to prepare Iowa’s health practitioners to care for our growing population of elders. E-NEWS is one of our methods of teaching through technology.

Each month, E-NEWS delivers abstracts from current multidisciplinary healthcare journal articles related to a specific geriatric topic. This month’s E-NEWS focuses on DEPRESSION AND COGNITIVE DECLINE.

DEPRESSION AND COGNITIVE DECLINE

In this issue of the E-NEWS, you will find abstracts for:

- A study that investigates geriatric depression and its relation with cognitive impairment and dementia.
- A study that examines cognitive functioning throughout the treatment history of clinical late-life depression.
- A study that seeks to determine which clinical characteristics and symptom dimensions of late-life depression are especially impacting on specific cognitive domains.
- A study that researches cognitive outcomes after psychotherapeutic interventions for major depression in older adults with executive dysfunction.
- An article that discusses the diagnosis and treatment of depression and cognitive impairment in late life.
- A review that assesses the effectiveness of psychological treatments for depression and anxiety in dementia and mild cognitive impairment.
- A study that evaluates late-life depression, mild cognitive impairment, and dementia.
- An article that explores the relationship between depression and cognition in the elderly.

Different subtypes of depressive syndromes exist in late life; many of them have cognitive impairment and sometimes it is difficult to differentiate them from dementia. This research aimed to investigate subtypes of geriatric depression associated with cognitive impairment, searched for differential variables and tried to propose a study model. A hundred and eighteen depressive patients and forty normal subjects matched by age and educational level were evaluated with an extensive neuropsychological battery, scales to evaluate neuropsychiatric symptoms and daily life activities (DLA). Depressive patients were classified in groups by SCAN 2.1: Major Depression Disorder (MDD) (n: 31), Dysthymia Disorder (DD) (n: 31), Subsyndromal Depression Disorder (SSD) (n: 29), Depression due to Dementia (n: 27) (DdD). Neuropsychological significant differences (p<0.05) were observed between depressive groups, demonstrating distinctive cognitive profiles. Moreover, significant differences (p<0.05) were found in DLA between DdD vs all groups and MDD vs controls and vs SSD. Age of onset varied in the different subtypes of depression. Beck Depression Inventory (BDI) and Mini Mental State Examination (MMSE) were significant variables that helped to differentiate depressive groups. Significant correlations between BDI and Neuropsychological tests were found in MDD and DD groups. Depressive symptoms and its relation with neuropsychological variables, MMSE, cognitive profiles, DLA and age of onset of depression should be taken into consideration for the study of subtypes of geriatric depression. ©2014 Elsevier Ireland Ltd.


OBJECTIVE: Previous investigations into the relationship between late-life depressive symptoms and cognitive functioning have resulted in mixed findings concerning whether or not depressive symptoms and cognitive functioning are related. The mixed reports may be due in part to differences in clinical and nonclinical samples and to inadequate consideration of the dynamic nature (i.e., fluctuating course) of depressive symptoms and cognitive functioning in older adults. The current study examined the chronic, acute, and longitudinal relationships between depressive symptoms and cognitive functioning in older adults in an ongoing treatment study of major depressive disorder (MDD). METHODS: The neurocognitive outcomes of depression in the elderly study operates in a naturalistic treatment milieu using a pharmacological treatment algorithm and regular psychiatric assessment. Four hundred and fifty-three older adults [mean age 70 years, standard deviation (SD) = 7.2] meeting criteria for MDD at study enrollment received annual neuropsychological testing and depressive symptom monitoring for an average of 8.5 years (SD = 4.5). RESULTS: Hierarchical linear modeling revealed that higher age, lower education, and higher average/chronic levels of depressive symptoms were related to lower cognitive functioning. Additionally, results revealed that when an individual's depressive symptoms are higher than is typical for a specific individual, general cognitive function was worse than average. There was no evidence of lagged/longitudinal relationships between depressive symptoms and cognitive functioning in older adults in treatment for MDD. CONCLUSIONS: Cognitive functioning and depressive symptoms are concurrently associated in older adults with MDD, highlighting the potential importance for stabilizing mood symptoms as a means to manage cognitive deficits in late-life depression. ©2015 John Wiley & Sons, Ltd.


BACKGROUND: Late-life depression is a heterogeneous disorder, whereby cognitive impairments are often observed. This study examines which clinical characteristics and symptom dimensions of late-life depression are especially impacting on specific cognitive domains. METHODS: Cross-sectional data of 378 depressed and 132 non-depressed older adults between 60-93 years, from the Netherlands Study of Depression in Older adults (NESDO) were used. Depressed older adults were recruited from both inpatient and outpatient mental healthcare institutes and general practices, and diagnosed according to DSM-IV-TR criteria. Multivariable associations were examined with depression characteristics (severity, onset, comorbidity, psychotropic medication) and symptom dimensions as independent variables and cognitive domains (episodic memory,
processing speed, interference control, working memory) as dependent variables. RESULTS: Late-life depression was associated with poorer cognitive functioning. Within depressed participants, higher severity of psychopathology and having a first depressive episode was associated with poorer cognitive functioning. The use of tricyclic antidepressants, serotonergic and noradrenergic working antidepressants, and benzodiazepines was associated with worse cognitive functioning. Higher scores on the mood dimension were associated with poorer working memory and processing speed, whereas higher scores on a motivational and apathy dimension were associated with poorer episodic memory and processing speed. CONCLUSIONS: Heterogeneity in late-life depression may lead to differences in cognitive functioning. Higher severity and having a first depressive episode was associated with worse cognitive performance. Additionally, different domains of cognitive functioning were associated with specific symptom dimensions. Our findings on the use of psychotropic medication suggest that close monitoring on cognitive side effects is needed.


OBJECTIVE: The purpose of this study was to determine the impact of psychotherapy on cognitive functioning in older adults with late-life depression (LLD) and executive dysfunction. METHODS: Two hundred twenty-one adults aged 60 years and older participated in a randomized clinical trial comparing the efficacy of Problem Solving Therapy (PST) and Supportive Therapy (ST) for LLD. Cognitive performance on seven tests of executive functioning, verbal learning, and memory was evaluated at baseline, after 12 weeks of treatment, and at 24 weeks after the completion of treatment. RESULTS: Performance on a measure of executive functioning with a significant information processing speed component (Stroop Color and Word Test) improved after treatment, F (1, 312) = 8.50, p = 0.002, and improved performance was associated with a reduction in depressive symptoms but not treatment type. Performance on other measures of executive functioning, verbal learning, and memory did not change significantly after 12 weeks of psychotherapy treatment. CONCLUSION: Our results suggest that improvements in cognitive functioning after psychotherapy treatment for depression in older adults with executive dysfunction are likely focal and not distributed across all cognitive domains. Although previous analyses reported that PST was superior to ST in the treatment of depression, this analysis indicated no difference between the two treatments with regard to improvements in cognitive functioning.


Cognitive impairment in late-life depression is prevalent, disabling, and heterogeneous. Although mild cognitive impairment in depression does not usually progress to dementia, accurate assessment of cognition is vital to prognosis and treatment planning. For example, executive dysfunction often accompanies late-life depression, influences performance across cognitive domains, and is associated with poor antidepressant treatment outcomes. Here, we review how assessment can capture dysfunction across cognitive domains and discuss cognitive trajectories frequently observed in late-life depression in the context of the neurobiology of this disorder. We also review the efficacy of a sample of interventions tailored to specific cognitive profiles. ©2015 New York Academy of Sciences.


BACKGROUND: Experiencing anxiety and depression is very common in people with dementia and mild cognitive impairment (MCI). Psychological interventions have been suggested as a potential treatment for these populations. Current research suggests that people with dementia and MCI have limited opportunities for psychological treatments aimed at improving their well-being. A systematic review of the evidence on their effectiveness is likely to be useful in terms of improving outcomes for patients and for future recommendations for practice. OBJECTIVES: The main objective of this review was to assess the effectiveness of psychological interventions in reducing anxiety and depression in people with dementia or mild cognitive impairment (MCI). SEARCH METHODS: We searched the Cochrane Dementia and Cognitive Improvement Group Specialized Register and additional sources for both published and unpublished data. SELECTION CRITERIA: We
included randomised controlled trials (RCTs) comparing a psychological intervention with usual care or a placebo intervention (social contact control) in people with dementia or MCI. DATA COLLECTION AND ANALYSIS: Two review authors worked independently to select trials, extract data and assess studies for risk of bias, using a data extraction form. We contacted authors when further information was not available from the published articles. MAIN RESULTS: Six RCTs involving 439 participants with dementia were included in the review, but no studies of participants with MCI were identified. The studies included people with dementia living in the community or in nursing home care and were carried out in several countries. Only one of the studies was classified as low risk of bias. Five studies were at unclear or high risk of bias due to uncertainties around randomisation, blinding and selective reporting of results. The studies used the different psychological approaches of cognitive behavioural therapy (CBT), interpersonal therapy and counselling. Two studies were of multimodal interventions including a specific psychological therapy. The comparison groups received either usual care, attention-control educational programs, diagnostic feedback or services slightly above usual care. Meta-analysis showed a positive effect of psychological treatments on depression (6 trials, 439 participants, standardised mean difference (SMD) -0.22; 95% confidence interval (CI) -0.41 to -0.03, moderate quality evidence) and on clinician-rated anxiety (2 trials, 65 participants, mean difference (MD) -4.57; 95% CI -7.81 to -1.32, low quality evidence), but not on self-rated anxiety (2 trials, SMD 0.05; 95% CI -0.44 to 0.54) or carer-rated anxiety (1 trial, MD -2.40; 95% CI -4.96 to 0.16). Results were compatible with both benefit and harm on the secondary outcomes of patient quality of life, activities of daily living (ADLs), neuropsychiatric symptoms and cognition, or on carers' self-rated depressive symptoms, but most of the studies did not measure these outcomes. There were no reports of adverse events. AUTHORS' CONCLUSIONS: We found evidence that psychological interventions added to usual care can reduce symptoms of depression and clinician-rated anxiety for people with dementia. We conclude that psychological interventions have the potential to improve patient well-being. Further high quality studies are needed to investigate which treatments are most effective and to evaluate the effect of psychological interventions in people with MCI.


OBJECTIVE: To evaluate the association of late-life depression with mild cognitive impairment (MCI) and dementia in a multiethnic community cohort. DESIGN AND SETTING: A cohort study was conducted in Northern Manhattan, New York, New York. PARTICIPANTS: A total of 2160 community-dwelling Medicare recipients aged 65 years or older were included in the study. METHODS: Depression was assessed using the 10-item version of the Center for Epidemiological Studies Depression scale (CES-D) and defined by a CES-D score of 4 or more. We used logistic regression for cross-sectional association analyses and proportional hazards regression for longitudinal analyses. MAIN OUTCOME MEASURES: Mild cognitive impairment, dementia, and progression from MCI to dementia were the main outcome measures. We also used subcategories of MCI (amnestic and nonamnestic), and dementia (probable Alzheimer disease and vascular dementia, including possible Alzheimer disease with stroke). RESULTS: Baseline depression was associated with prevalent MCI (odds ratio, 1.4; 95% CI, 1.1-1.9) and dementia (2.2; 1.6-3.1). Baseline depression was associated with an increased risk of incident dementia (hazard ratio [HR], 1.7; 95% CI, 1.2-2.3) but not with incident MCI (0.9; 0.7-1.2). Persons with MCI and coexisting depression at baseline had a higher risk of progression to dementia (HR, 2.0; 95% CI, 1.2-3.4), especially vascular dementia (4.3; 1.1-17.0), but not Alzheimer disease (1.9; 1.0-3.6). CONCLUSION: The association of depression with prevalent MCI and with progression from MCI to dementia, but not with incident MCI, suggests that depression accompanies cognitive impairment but does not precede it.

This review provides an overview of the relationship between depression and cognition in the elderly, with an emphasis on psychotherapies and nonpharmacologic approaches. We first review the clinical presentation of late-life depression and comorbid cognitive impairment, as well as the epidemiology and risk factors for cognitive impairment in late-life depression and the temporal relationship between depression and cognitive impairment. Next, we discuss the salient topic of elderly suicide and cognitive impairment. We then touch briefly on the neuropsychological deficits, biomarkers, and neuroimaging findings in late-life depression with comorbid cognitive impairment. We then focus most of this review on psychotherapies and nontraditional treatments for late-life depression with comorbid cognitive impairment and examine what evidence, if any, exists of the cognitive and functional benefits of these treatments. Finally, we examine the cognitive effects of pharmacologic treatments and brain stimulation therapies.
Next Month’s Issue:

Chemobrain: It’s Not All In Your Head

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