

Depression and Chronic Conditions

Why Does This Matter?

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August 8, 2017



Disclosures

Disclosure Statements

Criteria for successful completion include attendance at the entire event and submission of a completed evaluation form.

The planners and faculty have declared no conflict of interest.

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Objectives

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- Discuss the importance of recognizing and addressing depression in patients with chronic disease
- Discuss the prevalence of depression in diabetes, cardiac disease and other chronic conditions
- Discuss the overall disease burden and cost of health care in patients with chronic disease and depression
- Discuss behavioral and pharmacological interventions that can assist in treating depression associated with chronic disease

Depression and Chronic Disease: Prevalence and Cost and Interventions

Why is this important?

- Major depression is more common in the medically ill
- Depression intensifies physical symptoms (especially pain) and vice versa
- Depression impairs cognitive functioning including memory
- Depression affects ability to adhere to treatment plans
- Depression associated with negative behaviors (smoking/substance use, poor diet, inadequate exercise, social isolation)

Prevalence and Costs

Per the WHO World Health Survey (WHS):

“Depression produces the greatest decrement in health compared with the chronic diseases angina, arthritis, asthma, and diabetes. The comorbid state of depression incrementally worsens health compared with depression alone, with any of the chronic diseases alone, and with any combination of chronic diseases without depression. These results indicate the urgency of addressing depression as a public-health priority to reduce disease burden and disability, and to improve the overall health of populations.”

Prevalence and Costs

- **Depression may result from specific biologic effects of chronic medical illness**
 - Central nervous system disorders (Parkinson's disease, cerebrovascular disease, multiple sclerosis)
 - Endocrine disorders (hypothyroidism)
- **Depression may also be mediated by behavioral mechanisms (limitations on activity imposed by physical illness may lead to gradual withdrawal from rewarding activities)**
- **Randomized trials have shown the efficacy of both pharmacologic & psychosocial treatments of depression across a range of chronic medical conditions**

Prevalence and Costs

- **Depression linked to increased disease-related morbidity and mortality**
- **Depression clearly associated with poorer prognosis and more rapid progression of chronic illnesses, including ischemic heart disease and diabetes**
- **Depression may affect the course of ischemic heart disease through increased platelet activation or of diabetes through decreased glucose tolerance**

Prevalence and Costs

- Economic burden of people in the U.S. suffering from depression reached \$210.5 billion in 2010, a 21% rise from the \$173.2 billion in 2005. About 50% of the \$210.5 billion economic burden due to workplace costs, 45% attributable to direct costs, 5% to suicide-related costs
- **MDD** prevalence in the U.S. was **13.8 million people in 2005**, that figure rose to **15.4 million in 2010**
- People aged 50 and older represent the fastest growing group

Prevalence and Costs

- **Multiple studies have shown that depression is associated with increased costs in every cost component measured including:**
 - Primary care, pharmacy, medical specialty, emergency/urgent care, laboratory, inpatient medical, inpatient & outpatient mental health (only ~10% due to mental health utilization)
- **When compared with usual care, collaborative care intervention is associated with trends for a decrease in every cost component**

Prevalence and Costs

- **Coexistence of major depression with chronic conditions associated with more ambulatory care visits, emergency department visits, days spent in bed because of illness, and functional disability**
- **Rates of depression in primary care patients: 5-10%**
- **Rate of depression in patients with diabetes estimated to be 12-18% and coronary heart disease (CHD) estimated to be 15-23%**

Prevalence, Cost and Interventions

- **Presence of chronic medical illness may reduce likelihood that health care providers recognize or treat depression**
- **Demands of chronic illness management (and multiple competing demands) may leave inadequate time to evaluate/treat depression during a visit**
- **Even when symptoms are recognized, treatment sometimes deferred because of belief that “anyone would be depressed” in such a situation**
- **Because symptoms of depression (fatigue, changes in appetite) may overlap with manifestations of medical illness, using standard screening tools or diagnostic criteria for depression could lead to over diagnosis**

Prevalence and Costs

- **Primary care physicians rate patients with depression as more difficult to evaluate and treat compared to patients without**
- **Patients with depression make ~ 2x as many health care visits - often for vague physical symptoms - but also miss more visits**
- **Compared with non-depressed controls, patients with depression are less satisfied with PCPs**

Diabetes

- Depression is **2 times** as prevalent among persons with diabetes than those without
- Factors associated with low socioeconomic status may contribute to development of diabetes among persons with substantial depressive symptoms
- Cost: Total health expenditures for persons with diabetes and depression are ~ 4.5x more for those without depression

Vicious Cycle of Depression

- Poor diabetes management
- Diabetes related complications

- Lethargy
- Lack of motivation
- Extreme mood swings
- Low energy
- Indecisiveness

- Lack of social interaction
- Lack of physical activity
- Unhealthy behavior such as smoking or binge drinking
- Diet of processed foods

Diabetes

- **Despite availability of measures to screen for depression, it's estimated that < 25% with depression are diagnosed and treated**
- **Research has revealed that both CBT and antidepressant medications are associated with decreased severity of depression, improved treatment adherence and improved glycemic control**

Cardiovascular Disease

- Relative risk for developing heart disease in individuals with depression or depressive symptoms is ~ 1.6x higher than those without depression
- Persons with a history of major depression are more than 4x as likely to have an MI than those with no history
- ~ 1 in 6 persons with history of MI suffer from major depression; at least 2x that many experience significant depressive symptoms
- >1/2 of patients report depressive symptoms within 18 months of having a stroke

Cardiovascular Disease

- **Unmanaged stress can lead to high blood pressure, arterial damage, irregular heart rhythms and a weakened immune system**
- **For people with heart disease, depression can increase the risk of an adverse cardiac event such as a heart attack or blood clots**
- **For people who do not have heart disease, depression can also increase the risk of a heart attack and development of coronary artery disease**

Interventions: Screening for Depression

- **PHQ-2** - “first step”, inquires about frequency of depressed mood (“feeling down, depressed or hopeless”) and anhedonia (“little interest or pleasure in doing things”) over past 2 weeks
- **PHQ-9** – “second step”, above 2 questions plus 7 more about sleep, little energy, appetite, feeling bad about self, concentration, hypo- or hyperactivity, suicide; tenth question asking how difficult problems have been. Can help arrive at a definite diagnosis along w/ a clinical interview, assessing degree of impairment & ruling out other causes of symptoms.

Interventions: Screening for Depression

- **Depression screening is a US Preventive Services Task Force (USPSTF) Grade A best practice intervention**
- **Screening is widely accepted and adopted by most PO's, Health Plans, Medicare/Medicaid, physician offices**
- **Allows for immediate and longitudinal review of a patient's mood and depressive symptoms**
- **Reimbursable by Medicare and most health plans**
- **In most electronic health records (EHRs)**

Interventions- Antidepressants

- Recent clinical trials demonstrate that 2 SSRIs, Zoloft and Celexa, are safe for patients w/ cardiovascular disease. Effective for moderate, severe, or recurrent depression
- SSRI, SSNRI treatment soon after MI appears safe, relatively inexpensive, appears effective for post-MI depression
- Patients w/ recurrent depression who previously tolerated & responded well to another antidepressant may resume taking, unless now contraindicated
- Use of anxiolytics such as Xanax, Klonopin, Ativan pose risks for use as anti-depressant treatment

Antidepressants

- **Selective Serotonin Uptake Inhibitors- SSRI**

- Clinical activity in brain to allow increased availability neurochemical **serotonin** at the synapse
- Trade names: Prozac, Paxil, Zoloft

- **Selective Serotonin-Norepinephrine Uptake Inhibitors**

- Clinical activity similar to SSRI but also increases availability of neurochemical **norepinephrine** along with **serotonin**
- Trade names: Cymbalta, Celexa, Effexor, Prestiq

Interventions - Cognitive Behavioral Therapy

- **Focused on the present, more time-limited, more problem-solving oriented**
- **Learn specific skills that involve identifying distorted thinking, modifying beliefs, relating to others in different ways, changing behaviors**
- **Helps identify distressing thoughts and evaluate how realistic the thoughts are, then learn to change distorted thinking. When patients think more realistically, they feel better**
- **At least 12-16 sessions over 12 weeks advocated to achieve remission of moderate to severe depression**

Treating Depression- Exercise

- **Prescription of exercise needs to be individually assessed based on cardiac status and exercise capacity**
- **Researchers suggest participating in 3-5 exercise sessions per week, 45-60 minutes per session. For aerobic exercise, recommend achieving heart rate 50-85 percent of individual's max heart rate**
- **Drop-out rate is actually comparable to rates in studies of meds and psychotherapy**

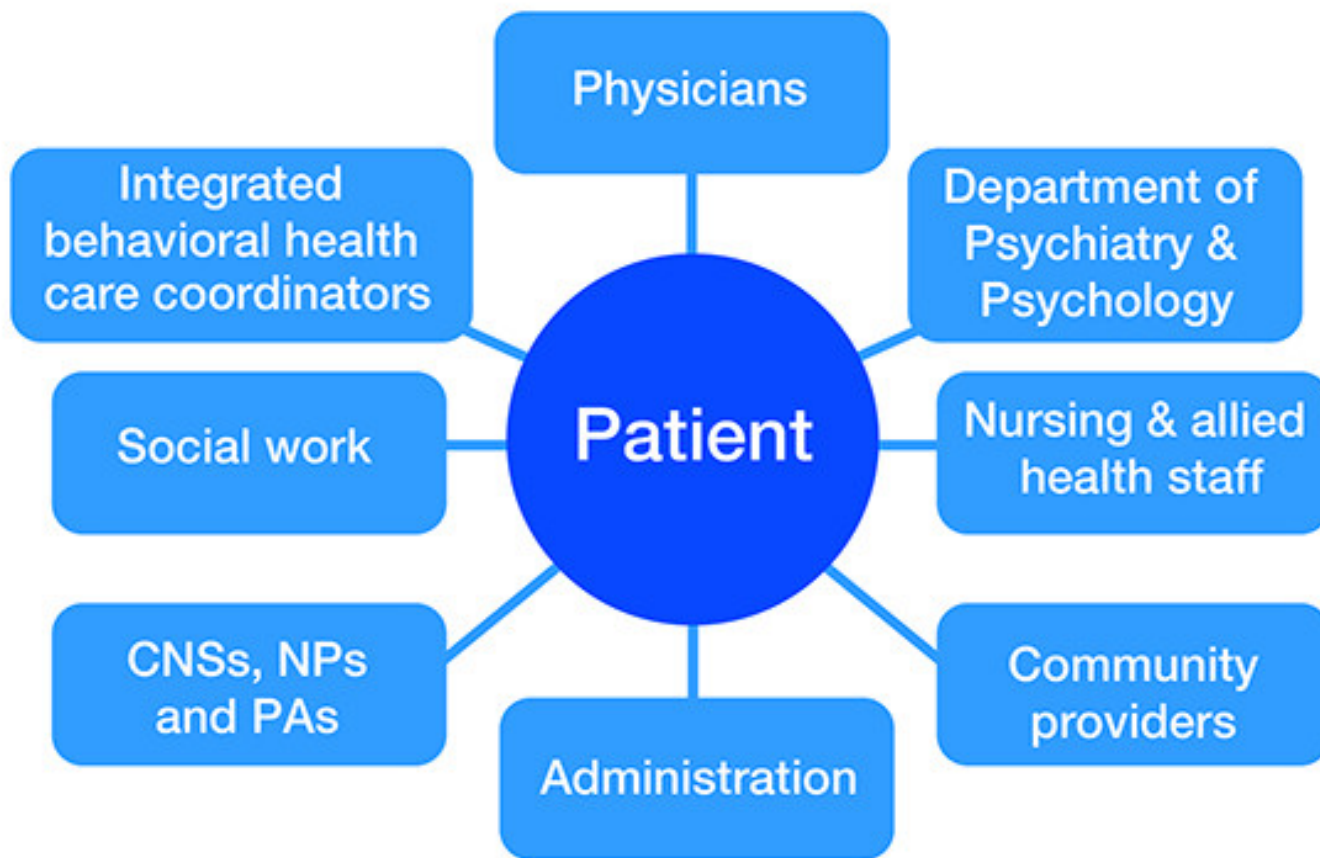
Interventions- Cardiac Rehab

- **Following major cardiac events, cardiac rehab associated with both reductions in depressive symptoms and associated excess mortality. Only mild improvements in levels of fitness appear to be needed.**
- **In a 2000-2005 study of 522 coronary patients, prevalence of depressive symptoms decreased 63% following rehab, from 17% to 6%. Depressed patients who completed rehab had a 73% lower mortality (8% vs 30%) compared with those who did not**

Collaborative Care Models

- **Collaborative Care is a specific type of integrated care developed at the University of Washington that treats common mental health conditions that require systematic follow-up**
- **Trained primary care providers and embedded behavioral health professionals provide evidence-based treatments**

COMPASS Model for Collaborative Care



Summary

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