# Diabetes and Depression

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## Learning Objectives

- State the risk factors for depression
- Identify the vulnerability of specific populations to depression
- Discuss the interrelationship between diabetes and depression
- Describe screening tools, diagnostic procedures, and referral procedures.

## Risk Factors for Depression

- Gender
- Marital Factors
- Age
- Previous Episode
- Stressful Event

## Background

- About 19 million Americans have depression[1]; more than 20 million have diabetes[2]
- Depression is estimated to be twice as prevalent among persons with diabetes[1]
- Depression is diagnosed in less than 25% of existing cases[4]
- Thirty percent of Americans with diabetes have yet to be diagnosed[2]

## Vulnerable Populations

- Minorities suffer disproportionately
- African American and Hispanic women suffer depression twice as much as men[2]
  African Americans and Hispanics all have significantly higher rates of diabetes than Whites[2]
- American Indians, Alaska Natives,Hawaiians, other Pacific Islanders, and Asian
- Americans residing in Hawaii have more than twice the rate of diabetes than Whites[2]

## Depression and chronic diseases

- Lifetime prevalence of depression ranges from 2-15% worldwide
- Depression is associated with significant disability and lower health status scores
- Co-morbidity of depression with chronic physical disease is well recognized

## Diabetes and Depression

- Worldwide 23% of patients with chronic diseases also had depression (Lancet 2007)
- In the US, 25% of patients with diabetes have concomitant depression (Diabetes Care 2001)
- Several studies have shown that diabetes affects mood, cognitive function and motor performance

## Diabetes Educator: July/Aug 2007

- Diabetes is the leading cause of morbidity in the United States
- Diabetes is the only disease that has the same prevalence in men and women
- Women with diabetes exhibit poorer self care, glycemic control and quality of life than men with diabetes

## Findings from the Diabetes Educator study

- Women with diabetes experience feelings of depression, anxiety and anger
- This has a significant impact on their health and overall quality of life
- **Recommend:** Health care providers should assess the psychological health of women with diabetes when developing a plan of care

## Effect of depression on glycemic control

- Depression directly affects glycemic control via the neuroendocrine pathways
- This results in hyperglycemia, increased platelet activation, inflammation and increased cardiovascular risk
- This effect is seen in both Type 1 and Type 2 diabetes

## Effect of depression on glycemic control

Depression also affects diabetes self-care management in the following domains:

- Diet
- Exercise
- Medication adherence
- Functional impairment
- Health costs

## NH Depression Statistics

- The 2006 BRFSS found that 6.8% of NH adults reported symptoms of current depression , representing an estimated 60,000 NH adults.
- In 2006, 17.2% of NH adults reported ever being diagnosed with depression by a health care provider

New Hampshire Behavioral Risk Factor Surveillance System
Bureau of Disease Control and Health Statistics

## NH Depression Statistics

- Men were significantly less likely than women to report symptoms of current depression.
- The prevalence of current depression was also significantly lower among adults aged 65 or older, adults with higher levels of education, adults with higher incomes and among adults who were currently married .
- The prevalence of current depression was significantly higher among adults who were currently out of work or unable to work.

- New Hampshire Behavioral Risk Factor Surveillance System Bureau of Disease Control and Health Statistics

## Tools to Screen for Depression

**SIGECAPS**

Patient Health Questionaire-PHQ-9

BECK depression scale

## Tools to Screen for Depression

- **SIGECAPS** = **SIG: Energy CAPS**ules

**S**leep disorder (either increased or decreased sleep)
**I**nterest deficit (anhedonia)
**G**uilt (worthlessness, hopelessness, regret)
**E**nergy deficit
**C**oncentration deficit
**A**ppetite disorder (either decreased or increased)
**P**sychomotor retardation or agitation
**S**uicidality

## PHQ-9 Screening Tool

- The PHQ-9 is the nine item depression scale of the Patient Health Questionnaire.
- It is based directly on the diagnostic criteria for major depressive disorders in the Diagnostic and Statistical Manual Fourth Edition (DSM-IV)
- www.depressionprimarycare.org/clinicians/toolkits/materials/forms/

## PHQ-9 Screening Tool

- The PHQ-9 is a powerful tool for assisting primary care clinicians in diagnosing depression as well as selecting and monitoring treatment.
- The primary care clinician and/or office staff should discuss with the patient the reasons for completing the questionnaire and how to fill it out.
- After the patient has completed the PHQ-9 questionnaire, it is scored by the primary care clinician or office staff.

## PHQ-9 Screening Tool

- The MacArthur Initiative on Depression and Primary Care recommends using the initial two component scoring system.
- We also recommend regular use of a chronicity question to aid consideration of mild chronic depression (dysthymic disorder).
- www.depression-primarycare.org/clinicians/toolkits/materials/forms/

## PHQ-9 Screening Tool

There are two components of the PHQ-9:

- Assessing symptoms and functional impairment to make a tentative depression diagnosis, and
- Deriving a severity score to help select and monitor treatment

PHQ-9 — Scoring Tally Sheet

**Patient Name** _____ **Date** _____

**1. Over the last 2 weeks, how often have you been bothered by any of the following problems? Read each item carefully, and circle your response.**

| | Not at all | Several days | More than half the days | Nearly every day |
|---|---|---|---|---|
| | 0 | 1 | 2 | 3 |
| a. Little interest or pleasure in doing things | | | | |
| b. Feeling down, depressed, or hopeless | | | | |
| c. Trouble falling asleep, staying asleep, or sleeping too much | | | | |
| d. Feeling tired or having little energy | | | | |
| e. Poor appetite or overeating | | | | |
| f. Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down | | | | |
| g. Trouble concentrating on things such as reading the newspaper or watching television | | | | |
| h. Moving or speaking so slowly that other people could have noticed. Or being so fidgety or restless that you have been moving around a lot more than usual | | | | |
| i. Thinking that you would be better off dead or that you want to hurt yourself in some way | | | | |
| Totals | | | | |

**2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

| Not Difficult At All | Somewhat Difficult | Very Difficult | Extremely Difficult |
|---|---|---|---|
| 0 | 1 | 2 | 3 |
| | | | |



 

www.americangeriatrics.org/education/dep_tool_05.pdf

## Scoring Method For Planning And Monitoring Treatment

**Question One**

- To score the first question, tally each response by the number value of each response:
  - Not at all = 0
  - Several days = 1
  - More than half the days = 2
  - Nearly every day = 3

- Add the numbers together to total the score.
- Interpret the score by using the guide listed below:

## Scoring Method

- **Score Action**
- ≤4 : The score suggests the patient may not need depression treatment.
- > 5-14 : Physician uses clinical judgment about treatment, based on patient's duration of symptoms and functional impairment.
- ≥15 : Warrants treatment for depression, using antidepressant, psychotherapy and/or a combination of treatment

## Scoring Method

**Question Two**

- In question two the patient responses can be one of four:
  - not difficult at all,
  - somewhat difficult,
  - very difficult,
  - extremely difficult.
- The last two responses suggest that the patient's functionality is impaired.
- After treatment begins, the functional status is again measured to see if the patient is improving.

www.americangeriatrics.org/education/dep_tool_05.pdf

## PHQ-9: Monthly Follow-Up Guide for Clinically Significant Depression

| | | |
|---|---|---|
| Drop of ≥ 5 points from baseline or PHQ < 5 | Adequate | No treatment change needed. Follow-up monthly until remission, then every 6 months. |
| Drop of 2-4 points from baseline | Possibly Inadequate | Consider change in plan: increase dose or change medication; increase intensity of SMS, psychotherapy |
| Drop of 1 point, no change or increase | Inadequate | Obligate change in plan (as above); consider specialist consultation, collaboration, referral |

## TREATMENT GUIDELINES: CONTINUTATION TREATMENT

- **Continue for *at least* 4-9 months**
- **After full remission (PHQ<5)**
- **Longer continuation decreases risk of relapse**

## Readiness To Change?

- Pre-contemplation- marked by patient view that there is no problem or little need to change the way one lives- Intervention is to review options, ask rhetorical questions to interject doubt about the perception of the problem
- Contemplation- marked by periods acknowledging the problem followed by periods ambivalence along with behavior inconsistent with agreed upon goals/outcomes
- Action- acknowledges problems and patient behavior is fairly consistent with plan and agreed upon goals

## Diabetes and Depression

- How are you managing your patients in this population in your practice?
- Do you feel you are meeting your desired outcome measures effectively and in a timely fashion?

## How can this work in a busy Primary Care /Family Practice?

- Challenge - how to keep visits to10 to 15 minutes per patient and still screen for depression.
- Identify high risk patients
- Identify high utilizers of services with complex medical conditions.

## How can this work in a busy Primary Care /Family Practice?

- Utilize an EMR with reminders and templates built in
- Utilize on site, integrated behavioral health specialist
- Utilization of a care manager
- Group Medical Visits
- Self Care Management
- Pharmacological interventions

## Implementation and role of care manager

- **Care management focuses on high-cost and high-volume conditions….and involves proactively coordinating with patients to ensure that they are following doctors' orders, taking medications, improving their health habits, and adhering to best practices.**

www.microsoft.com/office/showcase/caremanagement

## Care Manager

- Who?- Associate or Bachelor level paraprofessional with good communication skills
- Role? Acts as coordinator between patient, PCP, specialist especially for persons who have difficulty with compliance and/or complex needs

## Care Manager

- What? Tracking, information/referral, follow up with patients before, during and after PCP visit.
- How? Face to face visits while patient waits to see provider, phone calls, letters

## SELF-MANAGEMENT SUPPORT: SIX FUNCTIONS

- Encourage adherence
- Develop and maintain rapport
- Educate patient
- Resolve treatment-emergent problems
- Encourage exercise, pleasant activities
- Monitor progress using serial PHQs

## Group Medical Appointments

- 90 minute group of eight to 10 patients with a multidisciplinary team including a primary care provider, nurse/medical assistant and behavioral health consultant.
- Focus is education about diabetes, answering specific questions about people's concerns of their condition, discussing strategies for self-management, creating a network for patient support and brief meetings for personal intervention with the primary care provider at the completion of the group.
- Generally most effective if done weekly for four to six weeks.

## ANTIDEPRESSANTS

**SSRIs**

- **citalopram (Celexa)**
- **escitalopram (Lexapro)**
- **fluoxetine (Prozac)**
- **paroxetine CR (Paxil)**
- **sertraline (Zoloft)**

**OTHER NEW AGENTS**

- **bupropion SR (Wellbutrin) - DA/NE**
- **mirtazapine (Remeron) - NE/5HT**
- **venlafaxine XR (Effexor) - SRI/NR**

**TRICYCLICS**

| | Dep | Panic | OCD | SAD | GAD | PTSD | |
|---|---|---|---|---|---|---|---|
| citalopram | X | | | | | | |
| escitalopram | X | | | | | | |
| fluoxetine | Adult and children | X | X | | | | BN |
| fluvoxamine | | | X | | | | |
| paroxetine | Adult and children | X | Adult and children | X | X | X | |
| sertraline | X | X | Adult and children | Pending | | X | PDD |
| venlafaxine | X | Pending | | X | X | | |

DEP=major depression; OCD= Obsessive-compulsive disorder; SAD=social anxiety disorder; GAD=generalized anxiety disorder; PTSD=post-traumatic stress disorder; BN=bulemia nervosa; PDD=premenstrual dysphoric disorder

# Questions

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