Diabetes and Depression

Roshini Pinto-Powell, MD
Stephen Noyes, LICSW, LADC
William Gunn, PhD
Beverly Bean, RN, C

2008

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.
- Discuss next developmental steps for your practice

Depression Symptoms – DSM-IV

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

  Sleep disorder (either increased or decreased sleep)
  Interest deficit (anhedonia)
  Guilt (worthlessness, hopelessness, regret)
  Energy deficit
  Concentration deficit
  Appetite disorder (either decreased or increased)
  Psychomotor retardation or agitation
  Suicidality

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]

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

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

Prevalence of Behavioral Health Problems in Primary Care

Problem	PHQ-3000	Marrilac 500	Concord 500
Major Depression	10%	24%	17%
Anxiety	6%	16%	17%
Substance Abuse	7%	21%	10%
Somatic	7%	17%	13%
Sub-Threshold	28%	52%	45%

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

Challenges in Primary Care Management

- Detection
  - Up to 50% of psychiatric and CD conditions undiagnosed
  - PCP's do better with more severe conditions
  - Elderly more likely to be missed
  - Minorities more likely to be missed
  - Masked, somatization processes particularly difficult

Challenges in Primary Care Management

- Treatment
  - Overuse of medications (Katon, 1995)
  - Not adequate dosing of medications
  - Non-adherence a major issue (60% at four weeks)
  - Time to address issues more completely
  - Lack of adequate patient education materials
  - Inadequate disease management programs

Challenges in Primary Care Management

- Follow-up
  - Difficulties with timely return visits to monitor response and side-effects (less than 30% seen within a month)
  - High patient drop out rates
  - Difficulties managing overserviced/underserved patients
  - Difficulties in weaning patients off medicines

What do PCP's Do? (Katon, 1992)

- Study of PCP interactions with depressed persons
  - 60% talked about strategies the patient was using to feel better
  - 48% discussed pleasurable activities
  - 34% discussed ways to solve problems
  - 31% discussed challenging negative thoughts
  - 27% suggested ways to boost confidence

Impact Treatment Model – For Depression in Older Persons (Bartels, et.al)

- Collaborative Care Model includes:
  - Care manager: Depression Clinical Specialist
  - Patient education, symptom and side effect tracking, PST-PC
  - Consultation/weekly supervision meeting with
  - PCP and Psychiatrist
  - Stepped model using medication and PST-PC

Tools to Screen for Depression

Patient Health Questionaire-PHQ-9

BECK depression scale

Zung Depression Scale

Edinburg Post-Partum Scale

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

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 0	Several days 1	More than half the days 2	Nearly every day 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

Copyright held by Pfizer Inc, but may be photocopied ad libitum

 May be printed without permission

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

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

TREATMENT GUIDELINES: CONTINUTATION TREATMENT

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

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

Two minute PCP interventions – Strossal (2000)

- Identify something to do that will boost confidence
- Identify 1-2 pleasurable activities to do this week
- Identify an obstacle to taking medicine and a specific solution
- Teach a relaxation or mindfullness skill
- Teach a mood monitoring strategy

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.

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?

Questions

Funding for this project is gratefully acknowledged:

National Association of Chronic Disease Directors' Women's Health Council

Partners: NHDEP, SNHAHEC, NNHAHEC