



Screening and Monitoring Depression: Utilization of the PHQ-9 in the Family Practice setting

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Objectives



- Learn about the PHQ-9
- Learn how to use it
- Appreciate the challenges and benefits experienced in the process of implementing it in several family practice settings
- Identify lessons learned in its implementation

Financial Disclosures



NONE

Background



- At the Canadian Conference on Collaborative Mental Health Care last year Nick Kates spoke of the need to expand the focus of shared care beyond treating acute illness
- He recommended screening at-risk populations for mental illness in order to prevent illness or to intervene early
- He also spoke of tracking diagnosed patients to monitor for relapse and intervene quickly

Background



- Conversations with family physician at one of clinics led to possible focus on screening for depression in patients with diabetes
- Led eventually to learning about PHQ-9 and to contact with Dr. Leslie Born, the Coordinator for the Enhancing Depression Care & Peer Support Program with the Hamilton Family Health Team Inc.

PHQ-9



- History
 - Derived from the Primary Care Evaluation of Mental Disorders (Prime-MD)
 - Prime-MD was an instrument developed in the 1990s to efficiently diagnoses 5 of the most common mental disorders in primary care
 - Depressive
 - Anxiety
 - Somatoform
 - Alcohol and eating disorders

PHQ-9



- The length of time to administer was considered prohibitive and so the PHQ, a self-administered version, was developed
- This was further subdivided into the PHQ-9 (for depression), the GAD-7 for anxiety and the PHQ-15 for somatizing and somatoform disorders

PHQ-9



- Found to be equal or superior to other depression measures with excellent psychometric properties
- Performance is similar regardless of mode of administration (patient self-report, interviewer-administered either in person or by phone, touch-screen computer)
- Performs similarly across sex, age, and racial/ethnic groups

Table 1
 Psychosometric characteristics of PHQ-9, GAD-7 and PHQ-15 derived from key studies

Scale/Study	Sample size ● DSM-IV disorder	Criterion Validity ^a		Reliability			Area under Curve
		Sensitivity	Specificity	Internal (Cronbach α)	Test-Retest	Self-rated vs. Interviewer	
PHQ-9	● All MDD						
Kroenke [19]	6000 patients	.88	.88	.86-.89	.84	.84	.95
Gilbody [16]	14 studies ^b	.80	.92	–	–	–	–
Wittkampf [17]	4 studies ^a	.77	.94	–	–	–	–
GAD-7	2740 patients			.92	.83	.83	–
Spitzer [7,8]							
	● GAD	.89	.82	–	–	–	.91
	● Panic	.74	.81	–	–	–	.85
	● Social anxiety	.72	.80	–	–	–	.83
	● PTSD	.66	.81	–	–	–	.83
PHQ-15							
Kroenke [9]	6000 patients	–	–	.80	–	–	
Ravesteijn [18]	906 patients ^c			.80	.83		
	● Somatoform	.78	.71		.60		.76

PHQ-9



- Sensitivity to change is an essential characteristic of measures used to monitor response to treatment and this has been repeatedly established for the PHQ-9
- A 5 point decline represents a clinically significant improvement

PHQ-9



- Has been used successfully across a variety of medical conditions
- In dissemination studies the PHQ-9 has been favorably received in primary care and by mental health specialists

PHQ-9



- Found to be useful for depression screening in nursing homes
- In adolescent populations a modified version, the PHQA, has been recommended

Steps in Depression Diagnosis



1. Through interview and examination you may suspect depression (2 question screen)
2. Diagnostic criteria are explored using the PHQ-9
3. Rule out other causes of depressive symptoms

2 Question Screen



- Can be done first to decide whether to precede with PHQ-9

During the past month:

1. Have you often been bothered by feeling down, depressed, or hopeless? Y N
2. Have you often been bothered by little interest or pleasure in doing things? Y N

➤ If **YES** to either question, provide the PHQ-9.

An Alternative screen for Depression is the PHQ-2



- Can be done first to decide whether to proceed to the PHQ-9
- Comprised of the first 2 questions of the PHQ-9

PHQ-2



PHQ-2

Over the <i>last 2 weeks</i> , how often have you been bothered by any of the following problems? (circle the best answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3

Kroenke K, Spitzer RL, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Med Care*. 2003;41(11):1284-92. Copyright © 2003. Reprinted with permission.

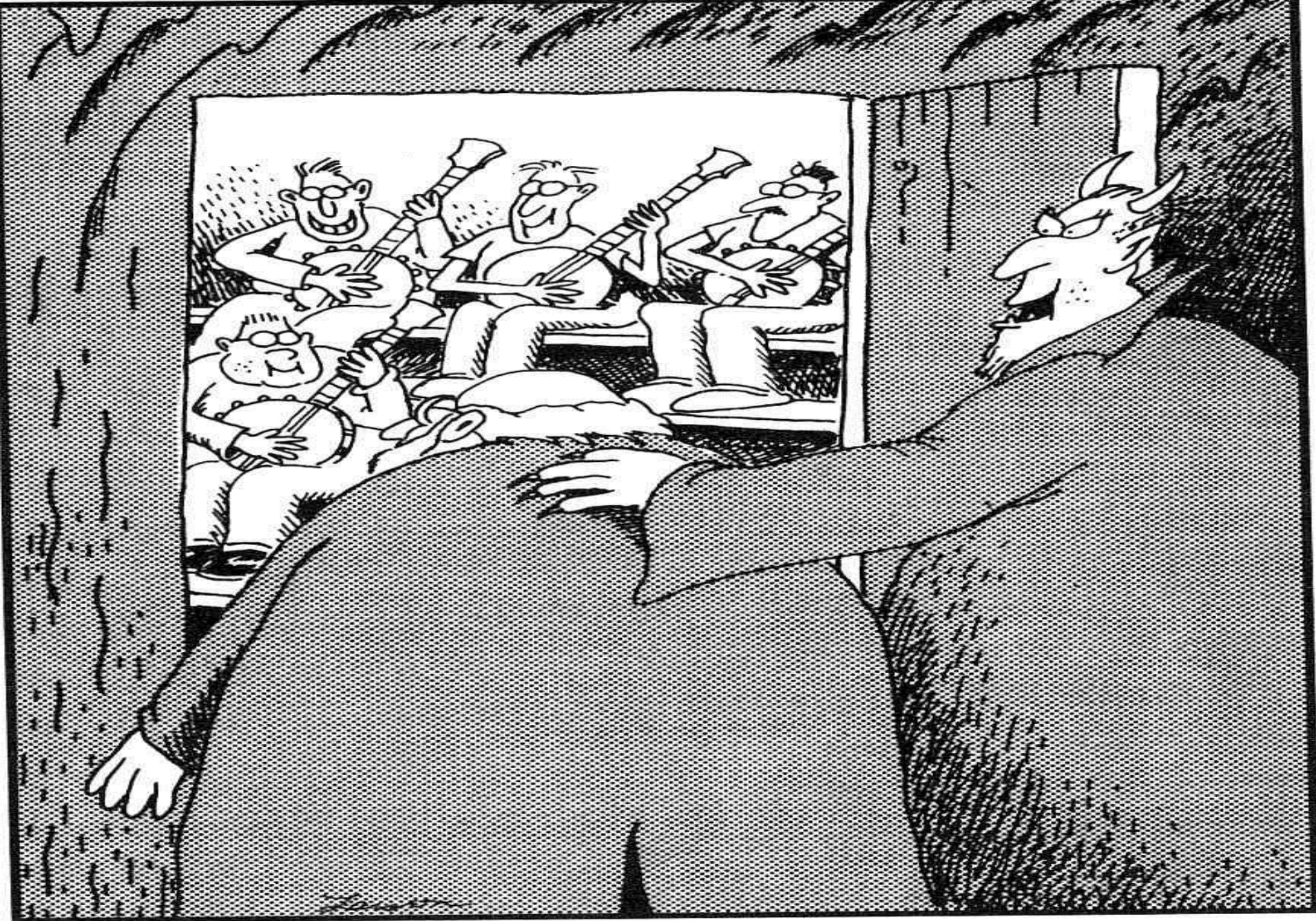
Using the PHQ-2



If score is 3 or above then proceed to do full PHQ-9



"You know, we're just not reaching that guy."



“Your room is right in here, Maestro.”

PHQ-9



How to Use the PHQ-9

Can Use the PHQ-9 for:



- Making a diagnosis
- Determining illness severity
- Selecting a treatment
- Monitoring treatment response
- Suggesting when to alter treatment

PHQ-9 and DSM-IV-TR



- Similarities
 - PHQ-9 asks about 9 symptoms of depression (Criterion A) and also impairment (Criterion C)
- Differences
 - Symptoms either present or absent in DSM-IV-TR vs rating on a 4 point scale in PHQ-9 which allows for severity score

Diagnosis and the PHQ-9



- Does not replace clinical interview in making a diagnosis
- Need to consider other causes for depressive symptoms including bipolar disorder, grief, medical illness and substance abuse
- Patients with high symptom burden from other illnesses (e.g. frail elderly) may score high even if mood is okay OR may be “under-reporting by elderly

NAME John Q. Sample

DATE _____

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

add columns:

+ +

TOTAL:

10	If you checked off any problems, 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	_____

Use of the PHQ-9 to Make a Tentative Depression Diagnosis (Symptomatology & Functional Impairment)



PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 1:
Need one or both questions endorsed as "2" or "3"
("More than half the days" or "Nearly every day")

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

TOTAL SYMPTOMS endorsed more than half the days
(except question 9 - any positive endorsement)

10	If you checked off any problems, 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	_____

Use of the PHQ-9 to Make a Tentative Depression Diagnosis (Symptomatology & Functional Impairment)



PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 2:
Need a total of five or more boxes endorsed within the shaded area
of the form to arrive at the total SYMPTOM COUNT.

Over the last 7 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

**TOTAL SYMPTOMS endorsed more than half the days
(except question 9 - any positive endorsement)**

6

10	If you checked off any problems, 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	_____

Use of the PHQ-9 to Make a Tentative Depression Diagnosis (Symptomatology & Functional Impairment)



PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 3:
FUNCTIONAL IMPAIRMENT is endorsed as "somewhat difficult" or greater.

Over the past 7 days, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

TOTAL SYMPTOMS endorsed more than half the days (except question 9 - any positive endorsement)

6

10	If you checked off any problems, 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	<input type="checkbox"/>
		Somewhat difficult	<input checked="" type="checkbox"/>
		Very difficult	<input type="checkbox"/>
		Extremely difficult	<input type="checkbox"/>



Using the PHQ-9 to assess depression severity

Use of the PHQ-9 for Treatment Selection & Monitoring (Determining a Severity Score)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 1:

Count each item in the column labeled "Several Days" and multiply by 1.
Enter that number below that column.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than several days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

add columns:

2

TOTAL:

10	If you checked off any problems, 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	_____



Use of the PHQ-9 for Treatment Selection & Monitoring (Determining a Severity Score)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 2:

Count each item in the column labeled "More than half the days" and multiply by 2.
Enter that number below that column.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

add columns: 2 + 10 +

TOTAL:

10	If you checked off any problems, 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	_____



Use of the PHQ-9 for Treatment Selection & Monitoring (Determining a Severity Score)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 3:

Count each item in the column labeled "Nearly every day" and multiply by 3.
Enter that number below that column.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

add columns: 2 + 10 + 3

TOTAL:

10	If you checked off any problems, 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	<input checked="" type="checkbox"/>
		Somewhat difficult	<input type="checkbox"/>
		Very difficult	<input type="checkbox"/>
		Extremely difficult	<input type="checkbox"/>



Use of the PHQ-9 for Treatment Selection & Monitoring (Determining a Severity Score)

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

STEP 4:

Add the totals for each of the three columns together. This is the SEVERITY SCORE.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

add columns: 2 + 10 + 3

TOTAL: 15

10	If you checked off any problems, 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	_____



PHQ-9 and the Management of Depression



- PHQ-9 score of 10 or above is often used as the cutoff for a clinical diagnosis of major depression and as an indication for the initiation of treatment
- Treatment phase: Goal is PHQ-9 score < 5 (patient is considered to be in remission)

Using PHQ-9 Diagnosis and Score for Initial Treatment Selection



PHQ-9 Score	Provisional Diagnosis	Treatment Recommendations
5-9	Minimal Symptoms	Support Educate to call if worse; return in 1 month
10-14	Minor Depression	Support, watchful waiting
10-14	Dysthymia	Antidepressant or Psychotherapy
10-14	Major Depression, <i>mild</i>	Antidepressant or psychotherapy
15-19	Major depression, moderately severe	Antidepressant or Psychotherapy
≥20	Major Depression, severe	Antidepressant and psychotherapy (especially if not improved on monotherapy)

Using the PHQ-9 to Assess Patient Response to Treatment



* Initial Response after Four - Six weeks of an Adequate Dose of an Antidepressant

PHQ-9 Score	Treatment Response	Treatment Plan
Drop of ≥ 5 points from baseline	Adequate	No treatment change needed Follow-up in four weeks.
Drop of 2-4 points from baseline	Probably Inadequate	Often warrants an increase in antidepressant dose.
Drop of 1 point or no change	Inadequate	Increase dose: Augmentation; Switch; Informal or formal psychiatric consultation; Add psychological counseling.

Using the PHQ-9 to Assess patient Response to Treatment



* Initial Response to Psychological Counseling After Three Sessions
over Four - Six Weeks

PHQ-9 Score	Treatment Response	Treatment Plan
Drop of ≥ 5 points from baseline	Adequate	No treatment change needed follow-up in 4 weeks
Drop of 2-4 points from baseline	Probably adequate	Possibly no treatment change needed. Share PHQ-9 with psychological counselor
Drop of 1 point or no change or increase	Inadequate	If depression-specific psychological counseling (CBT,PST,IPT) discuss with therapist, consider adding antidepressant. For pt. satisfied with psychological counseling, consider starting antidepressant For pts. Dissatisfied in other psychological counseling, review treatment options and preferences

MacArthur Initiative on Depression and Primary Care



<http://www.depression-primarycare.org>

When to use the PHQ-9



- At time of diagnosis
- Re-do 2 weeks after initiation of pharmacotherapy (based on recent evidence)
- Every 2-4 weeks until remission obtained depending upon severity of depression; can be linked with interventions used
- During continuation phase can be continued every 4 weeks to monitor for signs of relapse
- Once in maintenance phase can be done every 6-12 months

PHQ-9 Administration



- Can be completed by a patient in < 2 minutes
- Minimum grade 4 literacy skills required
- Can be integrated into EMR
- Can be done:
 - Prior to seeing patient (in examining room)
 - During assessment
 - Via the phone



PHQ-9 score sheets in multiple languages can be found at:

www.phqscreeners.com

Our Experience with Implementation



- At Shared Care team retreat in October PHQ-9 introduced and discussed and decision made to implement
- PHQ-9 presentations made at 3 of 4 academic family health team sites
- Subsequently introduced at 1 of the 4 family health teams on a trial basis
- Recently implemented as screening tool in diabetes population in 1 of sites

Clinician Experience



- PHQ-9 allows more objective measure of severity of illness rather than subjective
- Rating severity of symptoms helps formulate *measurable* treatment goals with the patient
- Can be a good communication tool between team members and with patient
- Promotes patient understanding of symptoms of depression (reduce stigma/normalize)
- Suicide /safety screen addressed at each visit

Clinician Experience



- It is brief, reliable, and available in many languages
- Pt don't seem to mind doing it; some are interested in the score and what it means for their progress
- It does not take a lot of time/effort to integrate use into daily practice - *easy to use and score.*
- It helps structure assessment and interview
- I believe it helps me provide better data to team members for decision making regarding treatment
- I like it so much I also use the GAD-7 ☺

Where we are at now



- Used at all 4 sites
- Extent of use not clear but appears to be growing
- Those who are using it appear to like it
- Used regularly by Shared Care team members in all relevant encounters

Lessons Learned



- Make sure your own team is familiar with the tool and is comfortable using it before introducing it more widely
- Identify person/people in clinic who are interested in “championing” its use
- Recognize that not everyone will adopt it immediately or perhaps ever
- Have copies of PHQ-9 and PHQ-2 readily available in clinic for staff to use

Lessons Learned



- Ensure that if have EMR that it be embedded in software if possible
- Use it in all reports where depression is present and model its use whenever possible

In Summary



- The PHQ-9 is a well researched and widely accepted tool for assessing depression in the primary care setting
- It is easy to administer and closely resembles DSM-IV-TR criteria for Major Depression
- It can be used to help make a diagnosis, determine illness severity, guide treatment and facilitate communication between teams
- Our experience in implementing has been a positive one and it has been well received in the clinics in which it has been introduced



Questions?