Anxiety Disorders in the Primary Care Setting:

Educational Goals:

1) How to best screen for anxiety disorders in primary care
2) Recent changes in diagnostic criteria and treatment regimens
3) Improving our systems for caring for patients with anxiety disorders
Case Presentation:

68 years old very pleasant man with severe knee DJD along with HTN, CRI and atrial fibrillation.

Missed three consecutive days in the OR for TKA. Notes he doesn’t sleep well in the hospital.
“Anxiety Disorders in Primary Care: Prevalence, Impairment, Comorbidity, and Detection”


- Approached 2982 consecutive patients at 15 US Primary Care sites, 92% agreed and completed a 4-page questionnaire.

- 1654/2149 who were approached agreed to a telephone interview and 965 completed a full anxiety evaluation (including Medical Outcome Study Form-20, DSM-IV Structured Clinical Interview and a 7-item anxiety screening tool- Generalized Anxiety Disorder-7 Scale).
Of the 965 patients:

- 19.5% had at least 1 anxiety disorder
- 8.6% PTSD
- 7.6% GAD
- 6.8% Panic Disorder
- 6.2% Social Anxiety Disorder

41% with diagnosed anxiety disorders reported no current treatment.

GAD-7 (and the simpler GAD-2) performed well as screening tools for all 4 disorders (ROC- area 0.80-0.91)
Anxiety disorders are often missed.

- Approximately 14-36% of patients with anxiety disorders are recognized in PC clinics.
- Approximately 25% receive an adequate trial of pharmacologic treatment.
- Less than 25% receive appropriate counseling/cognitive therapy.
- Nearly ½ patients screened in primary care clinics with an anxiety disorder receive no treatment.
Surveyed 9282 English speaking US residents

- > 18 years old, using DSM-IV criteria

**Lifetime Prevalence:**

- Anxiety disorders - 28.8%
- Mood disorders - 20.8%
- Substance use disorders - 14.6%
- Any disorder - 46.4%

"Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication"

Arch Gen Psych-2005
Second themed issue on global mental health
Mental health problems affect 10-20% of children worldwide; mental ill health and poverty interact in a negative cycle.
WHO reports that mental illness is the #2 cause of total disability in economically developed countries and it may pass cardiovascular disease in upcoming years.
Up to “9 of 10 people with a mental health problem do not receive even basic care in some countries.”
### DSM-IV Criteria: Key Features of Specific Anxiety Disorders

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Key features</th>
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<tbody>
<tr>
<td>PD with or without agoraphobia</td>
<td>• Recurrent unexpected panic attacks without any obvious situational trigger</td>
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<td>• Patient may actively avoid situation in which panic attacks are predicted to occur</td>
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<td></td>
<td>• Intolerance of physical symptoms of anxiety</td>
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<tr>
<td>SAD and (or) social phobia</td>
<td>• Excessive or unrealistic fear of social or performance situations</td>
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<td></td>
<td>• Intolerance of embarrassment or scrutiny by others</td>
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<tr>
<td>Specific phobia</td>
<td>• Excessive or unreasonable fear of a circumscribed object or situation, usually associated with avoidance of the feared object (for example, an animal, blood, injections, heights, storms, driving, flying, or enclosed places)</td>
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<td>OCD</td>
<td>• Presence of obsessions; recurrent, unwanted, and intrusive thoughts, images, or urges that cause marked anxiety (for example, thoughts about contamination, doubts about actions, distressing religious, aggressive, or sexual thoughts)</td>
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<td>• Compulsions; repetitive behaviors or mental acts that are performed to reduce the anxiety generated by the obsessions (for example, checking, washing, counting, or repeating)</td>
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<td>GAD</td>
<td>• Uncontrollable and excessive worry occurring more days than not, about a number of everyday, ordinary experiences or activities. Often accompanied by physical symptoms (for example, headaches or upset stomach)</td>
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<td></td>
<td>• Intolerance or uncertainty</td>
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<td>PTSD</td>
<td>• Occurs after a traumatic event to which patient responds with intense fear, helplessness, or horror; patients relive the event in memory, avoid reminders of the event, and experience emotional numbing and symptoms of increased arousal</td>
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<td></td>
<td>• Intolerance of reexperiencing trauma</td>
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</table>
Has a new diagnosis of mixed anxiety/depression; patient has three or four of the symptoms of major depression (which must include depressed mood and/or anhedonia) and they are accompanied by anxious distress [two or more of these symptoms: irrational worry, preoccupation with unpleasant worries, having trouble relaxing, motor tension, fear that something awful may happen].

Trauma and Stressor Related Disorders: a new category with PTSD separate from the Anxiety Disorders
Priorities for change include:

1) High rates of co-occurring diagnoses identified by DSM-IV criteria
2) Hierarchial “pure” diagnostic categories don’t adequately describe an individual’s clinical mental health presentation
3) The frequent use of NOS for patients who don’t fit any specified designations/diagnoses
4) DSM-5 needs to be a “living document” open to ongoing revision to incorporate new findings in the behavioral and neurosciences.
Anxiety Disorders:

**DSM-IV**
- Generalized anxiety disorder
- Panic disorder
- Agoraphobia
- Specific phobia
- Social phobia
- Obsessive-compulsive disorder
- Post traumatic stress disorder
- Acute stress disorder

**DSM-5**
- Separation anxiety disorder
- Panic disorder
- Agoraphobia
- Specific phobia
- Social anxiety disorder
- Generalized anxiety disorder
- Substance-induced anxiety disorder
- Unspecified anxiety disorder
Caveats when dealing with an anxious patient:

1) Include a history and physical examination, including a neurologic evaluation to evaluate for medical causes. Pursue adequate evaluation of other physical symptoms or examination findings.

2) Consider CBC, routine chemistries, TSH, magnesium, calcium, EKG and screening for substances.

3) “Collateral history” from a family member can be helpful.

4) Consider all medications, withdrawal syndromes, caffeine and other OTC’s.

5) Anxious patients are further stressed by diagnostic uncertainty; try to be reassuring even when uncertain.

6) Rates of anxiety symptoms are commonly increased in patients with COPD, asthma, PE, Parkinsons, post-
CVA
Many screening tools/questionnaires available without consensus for the primary care setting.

Spitzer et al developed PRIME-MD, a screening tool for 5 common mental health disorders in the 1990s.

Required mean of 5.6 minutes of clinician time in patients with no mental health disorder, 11.4 minutes in patients with a diagnosis.

Have developed many screening tools since: PHQ-4 (Anxiety and Depression) and Provisional Diagnostic Instrument 4.
Many patients with anxiety disorders have more than one mental health disorder: 1/3 to 2/3 in many series.

“OASIS: Overall anxiety severity and impairment scale”- recent studies suggest it can be used across anxiety disorders with multiple anxiety disorders and with sub-threshold anxiety.

MINI: Mini-International Neuropsychiatric Interview
**Brief Patient Health Questionnaire**

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in the understanding problems that you may have.

Name __________  Age ______  Sex _________  Date ________

<table>
<thead>
<tr>
<th>1. Over the last 2 weeks, how often have you been bothered by any of the following problems?</th>
<th>Not at all</th>
<th>Several Days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
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</thead>
<tbody>
<tr>
<td>a. Little interest or pleasure in doing things</td>
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<td>b. Feeling down, depressed, or hopeless</td>
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<tr>
<td>c. Trouble falling or staying asleep, or sleeping too much</td>
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<td>d. Feeling tired or having little energy</td>
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<td>e. Poor appetite or overeating</td>
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<td>f. Feeling bad about yourself or that you are a failure or have let yourself or your family down</td>
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<td>g. Trouble concentrating on things, such as reading the newspaper or watching television</td>
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<td>h. 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</td>
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<tr>
<td>i. Thoughts that you would be better off dead or hurting yourself in some way</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Questions about anxiety</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. In the last 4 weeks, have you had an anxiety attack—suddenly feeling fear or panic?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IF you checked &quot;NO&quot;, go to question #3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Has this ever happened before?</td>
<td></td>
<td></td>
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<tr>
<td>c. Do some of these attacks come suddenly out of the blue—that is, in situations where you don’t expect to be nervous or uncomfortable?</td>
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<tr>
<td>d. Do these attacks bother you a lot or are you worried about having another attack?</td>
<td></td>
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<tr>
<td>e. During your last bad anxiety attack, did you have symptoms like shortness of breath, sweating, your heart racing or pounding, dizziness or faintness, tingling or numbness, or nausea or upset stomach?</td>
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</tbody>
</table>

| 3. If you checked off any problems 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? | | | | |
The Generalized Anxiety Disorder (GAD)-7 scale.

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

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling nervous, anxious, or on edge</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Not being able to stop or control worrying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Worrying too much about different things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Having trouble relaxing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Being so restless that it is hard to sit still</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Becoming easily annoyed or irritable</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling afraid as if something awful might happen</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Score= Add Columns _____ + _____ + _____ + ______
Generalized Anxiety Disorder:

58 year old WM new in clinic after presenting to the ER with painless, macroscopic hematuria for 1 ½ years. Now so frequent and severe that he felt compelled to present to the ER; U/S revealed a 4 cm bladder tumor. Very anxious appearing man on a long list of herbal medications; declines further imaging or Urology consultation on his first visit.
Generalized Anxiety Disorder

- Uncontrollable and excessive worry, occurring more days than not, about a number of everyday, ordinary experiences or activities. Often accompanied by physical symptoms (e.g., headaches or upset stomach).
- Intolerance of uncertainty.
Generalized Anxiety Disorder

- Excessive anxiety and worry (apprehensive expectation) about two (or more) domains of activities or events (for example, domains like family, health, finances, and school/work difficulties)
- The excessive anxiety and worry occur on more days than not for three months or more
- The anxiety and worry are associated with one or more of the following symptoms:
  - Restlessness or feeling keyed up or on edge
  - Being easily fatigued
  - Difficulty concentrating or mind going blank
  - Irritability
  - Muscle tension
  - Sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep)
- The anxiety and worry are associated with one (or more) of the following behaviors:
  - Marked avoidance of situations in which a negative outcome could occur
  - Marked time and effort preparing for situations in which a negative outcome could occur
  - Marked procrastination in behavior or decision-making due to worries
  - Repeatedly seeking reassurance due to worries

- The focus of the anxiety and worry are not restricted to symptoms of another disorder, such as Panic Disorder (e.g., anxiety about having a panic attack), Social Anxiety Disorder (e.g., being embarrassed in public), Obsessive-Compulsive Disorder (e.g., anxiety about being contaminated), Separation Anxiety Disorder (e.g., anxiety about being away from home or close relatives), Anorexia Nervosa (e.g., fear of gaining weight), Somatization Disorder (e.g., anxiety about multiple physical complaints), Body Dysmorphic Disorder (e.g., worry about perceived appearance flaws), Illness Anxiety Disorder (e.g., belief about having a serious illness), and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder.

- The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or an Autism Spectrum Disorder.
# Overview of therapy for anxiety disorders

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>CBT</th>
<th>Medication Therapy 1st Line</th>
<th>Medication Therapy 2nd Line</th>
<th>?benzodiazepines</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Panic disorder</td>
<td>Combination with medications or alone (patient preference and availability)</td>
<td>SSRI (side-effects, cost, drug interactions can guide choice) Duration at least 1 year after decrease symptoms.</td>
<td>SNRI (venlafaxine ER)</td>
<td>For severe SXS, immediate effect if no substance abuse (active). Prefer short term.</td>
<td>Use CBT and medications if comorbidities or persistent symptoms</td>
</tr>
<tr>
<td>2) Social Anxiety disorder</td>
<td>Individual CBT maybe more helpful than group, now including cognitive restructuring, exposure practices and possibly internet</td>
<td>SSRIs- equal in efficacy to CBT, faster but may not last as long</td>
<td>SNRI- ? also 1st line</td>
<td>As above</td>
<td>Dual tx with CBT and medications not proven to be more effective</td>
</tr>
<tr>
<td>3) Generalized Anxiety disorder</td>
<td>NNT= 4 vs waiting list controls or usual therapy</td>
<td>SSRI, SNRI Long term duration may be necessary</td>
<td>TCA</td>
<td>As above</td>
<td>20-40% relapse within 6-12 months of medication discontinuation</td>
</tr>
<tr>
<td>4) Post-traumatic stress disorder</td>
<td>Trauma- focused CBT</td>
<td>SSRI or SNRI Start at low dose and titrate up, patiently if possible</td>
<td>Prazosin to decrease nightmares, ? atypical antipsychotics</td>
<td>As above</td>
<td>Often necessary to switch or combine therapies</td>
</tr>
</tbody>
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*Note: CBT = Cognitive Behavioral Therapy, SSRI = Selective Serotonin Reuptake Inhibitors, SNRI = Serotonin-Norepinephrine Reuptake Inhibitors, TCA = Tricyclic Antidepressants*
Generalized Anxiety Disorder: treatment response

- Prognosis varies with severity of symptoms, presence of comorbidities (especially depression, substance abuse or other anxiety disorders), and social factors.
- Response rates vary with how defined—often in the 45-80% range; remission rates 20-30% less.
- Start low dose, monitor closely for adverse effects and benefit and titrate dose.
- Cognitive Behavioral Therapy is first-line therapy if available, generally equal to medications and longer lasting.
Five reasons to better integrate mental healthcare into the primary care setting:

1) Patients prefer it.
2) Mental health problems are missed or misattributed to physical illnesses, particularly in elderly patients.
3) Patients are more likely to receive care for MH problems when it’s identified and able to be treated in a PC setting.
4) Receiving MH care in the primary care context enables better integration of care.
5) Treating MH issues in PC setting can help destigmatize mental illness and MH care.
Everything you know for sure changes every five years: “Stress and the city”

- In 1950, 30% of the world’s population lived in urban settings. In 2040, 70% of the world’s population will live in urban settings.
- Living in the city is associated with a 2 times increase in the rate of schizophrenia and markedly increased risks of anxiety and depression.
- Used functional MRI to measure brain function during a social stress test.
- Amygdala and cingulate cortex activation was different in those who grew up in large cities—and it was “dose-dependent”.
“Abnormalities in the neural circuitry (within the amygdala, medial prefrontal cortex, insular cortex and hippocampus) underlie fear, memory and emotions…”

National Institute of Mental Health (NIMH) proposed recently that mental health disorders should be viewed as disorders of brain circuitry (Graham; AmJ Psych in 8/2011) in the hope that this conception will help lead to advances in early detection of vulnerability to the disorders and in predicting treatment response.

“…anxiety disorders would be conceptualized not as distinct diagnostic categories but as disorders of fear circuitry or of fear extinction or inhibition.”
“Functional Neuroimaging of Anxiety: A Meta-analysis of Emotional Processing in PTSD, Social Anxiety Disorder, and specific Phobia”
Am J Psychiatry 2007

- Functional MRI and PET scanning show greater activation in the amygdala and insula in patients with any of the 3 disorders-linked to negative emotional responses.
- Hyperactivation was more similar in SAD and specific phobias than PTSD; PTSD also had decreased activity in the cingulate cortex.
Research on primary care-based care of depression suggests that changing the system-of-care was the most significant change.

Must link good screening programs to evidence-based treatment programs.

“quality of care and outcomes improve when screening is coupled with multimodal intervention programs, such as collaborative care.”
Collaborative Care Models for depression:
Archives of Internal Medicine theme issue; 11/06

- Systematic review and meta-analysis of 37 RCT’s evaluating collaborative care models vs usual primary care showed improved medication compliance and improved depression outcomes at 6, 12, 18 months and probably at 2 and 5 years.

- Primary benefits of collaborative care models included improved antidepressant medication compliance, care managers with more MH training, and regular caseload supervision.

- Additional costs noted in first 12 months may be recouped in years 2 and 3.

- USPSTF recommends screening adults for depression (B recommendation) when staff-assisted depression care supports are in place; recommends against routinely screening when staff-assisted supports are not in place.
“Disorder-Specific Impact of Coordinated Anxiety Learning and Management Treatment for Anxiety Disorders in Primary Care”
Craske et al, Arch Gen Psychiatry April 2011

- Compared usual care for anxiety disorders in primary care setting with a flexible treatment-delivery model (Coordinated Anxiety Learning and Management [CALM])
- RCT at 17 US primary care clinics
- Allowed choice of CBT, medication or both and included computer assisted program to optimize delivery of therapy and web-based outcome monitoring
- Approximately 37% chose CBT only, 7% medications only, and 56% both
“Attempted to provide evidence-based care including CBT and/or pharmacologic treatment in health care systems that didn’t reliably have this available

Collaborative care model to treat the 4 most common anxiety disorders: hired an Anxiety Clinical Specialist at each site to help direct, monitor and coordinate care, along with PC and psychiatry

Created a computer based CBT program that included modules that provided skills to treat all four anxiety disorders and individual modules to address unique aspects of each disorder

Describe in separate publication (General Hospital Psychiatry 33 (2011) 336-342) how they trained their primary care clinic staffs to provide CALM-ITV Care
1004 patients referred from PC clinic by the providers (120 internists, 28 FP’s) ages 18-75 who met DSM-IV criteria for 1 or more anxiety disorders

Used MINI (Mini International Neuropsychiatric Interview) to make DSM-IV diagnosis; OASIS score of at least 8 on a 0-20 scale

Co-occurring major depression was permitted; stratified randomization based on location and depression comorbidity

In patients with multiple anxiety disorders they chose which one was “most troubling.”
CALM- outcomes:

Response and remission rates based on BSI-12 (Brief Symptom Inventory) versus Usual Care

6 months:
- Response rates 58% vs 37%
- Remission rates 43% vs 28% (NNT 7)

12 months:
- Response rates 64% vs 45%
- Remission rates 52% vs 33% (NNT 5-6)

Similar improvements in response and remission rates at 18 months noted
“Cost-effectiveness of a primary care model for anxiety disorders”

- Cluster randomized controlled trial: 23 practices received intervention which included enhanced training on diagnosis and treatment of anxiety disorders for the GP’s and access to a psychiatric liaison service.
- In Germany (Leipzig) patients have direct access to office based psychiatrists and psychoterapists but still a large proportion of patients with anxiety are managed solely in PC.
- Assessed overall cost of care and quality: ? guideline level pharmacotherapy or psychotherapy, cost of testing and care including ER visits, Beck Depression and Anxiety inventories at 6-9 months.
- No benefit was seen: no improvement in anxiety scores, costs and the liaison service was not frequently utilized.
Integration of mental health care in the primary care setting is a high priority for the VHA.

2005: VA Mental Health Strategic Plan began implementation to “fundamentally transform how mental health care is delivered” including both co-located collaborative care and care management.

Attempting to evaluate which components of these changes are associated with better outcomes; unable to do RCT’s for system changes:

2011 review of Behavioral Health Interventions in New York state VA PC clinics dealt primarily with depression and anxiety issues (50% +); trying to use brief interventions (not full CBT) for these issues.
“Transdiagnostic Internet treatment for anxiety disorders: a randomized controlled trial.”
Behavior Research and Therapy, 2010

- A “transdiagnostic” or unified program that targets the common elements and symptoms of multiple anxiety disorders: GAD, panic disorder or SAD
- Internet-based, clinician guided CBT program, the Anxiety Program; 6 lessons over 8 weeks with homework assignments, weekly telephone or e-mail contact from a clinical psychologist and automatic e-mails- also access to a moderated online discussion forum.
- Requires approximately 5-6 minutes/week of clinician time
- Significant improvement on multiple anxiety scales (GAD-7) that was sustained at 3 months
- More than 70% had multiple diagnoses, 46% had depression also
“Cost-effectiveness of Internet-based cognitive behavior therapy vs cognitive behavioral group therapy for social anxiety disorder: Results from a randomized controlled trial”

Initial publication in March 2011 online only; PLoS (Public Library of Science)

N=126 pts with SAD; equal numbers in each. MH disorders, 20-30% on meds during study, mean age 35 with SAD x 21 years

55% responders with ICBT, 34% with CBGT

Cost effective, less therapist time
"Using the Internet to provide CBT"
Andersson 2009

- Seems wrong
- Internet based therapy as good or better than face-to-face therapies for Panic disorder, SAD, PTSD, depression- and maintained
- Guidance is needed
- Now being tried for full spectrum of disorders from tinnitus to pain syndromes and more
“Effectiveness of cognitive behavioral therapy in primary health care: a review”

Reviewed 17 studies on the effectiveness of CBT delivered in the primary care setting rather than specialized MH services.

Eight studies of supported internet -or computer- based CBT (six of which were RCT’s) suggest this treatment is effective for mild to moderate depression and anxiety.

Relapse rates are high for patients on pharmacotherapy for depressive and anxiety disorders when the medications are withdrawn; CBT seems to be as effective in preventing relapses in the long term as keeping patients on medications.

Author’s conclusion: “…CBT-based self help with clinician-support delivered in everyday primary care settings represents an effective treatment for depression and anxiety disorders.”
“They’re anti-anxiety pills- but I’m afraid to take them.”
Conclusions:

1) Consider screening all patients for anxiety and/or depression; GAD-7 or PHQ-4

2) Cognitive Behavioral Therapy is now first line for most anxiety disorders or SSRI/SNRI’s

3) New systems of care, including directed CBT (potentially online) and collaborative case management appear very promising