Provide empiric tools to help patients explore the validity of their thoughts and the impact of their behaviors.
Whether you are in training or an experienced practitioner, you need more than a rudimentary understanding of cognitive-behavioral therapy (CBT). This easy-to-use psychotherapy has broad empirical support, is a first-choice treatment, and can help patients cope with depression, anxiety, and other psychological problems.

Psychiatrists who learn CBT well can alleviate many patients’ distress by creatively applying its tools and techniques. For example, the cognitive approach to panic disorder compares favorably to medication1-3 (Box, page 28).

**AARON BECK’S CBT**

Negative thoughts, biased processing. The greater your fidelity to CBT’s guiding principles (Table 1, page 31), the more effective the therapy becomes.4 Beck designed CBT to address his observation that depressed persons hold unrealistically negative views about themselves, the world, and the future.5,6 A distorted information-processing system prevents them from correcting underlying negative beliefs. Negative thoughts predominate...
Demystifying CBT

Box
Treating anxiety disorders with CBT: A first-line therapy

Using CBT to experientially disconfirm catastrophic cognitions is the psychotherapy of choice for anxiety disorders. Cognitive models exist for each anxiety disorder and include psychoeducation, self-monitoring, evaluation of anxious cognitions, and testing cognitions interoceptively (within the body) and in vivo (within the environment). The therapist strategically uses adjunctive measures such as relaxation training, controlled breathing, visualization, and distraction.

Panic disorder is characterized by catastrophic misinterpretations of benign bodily sensations that accompany a fear response. Disability occurs when patients avoid situations or activities they believe will activate bodily sensations such as dizziness or breathlessness. Using environmental manipulations—spinning, hyperventilation, or straw-breathing, to name a few—CBT aims to disconfirm patients’ catastrophic thoughts by deliberately exposing them to feared somatic sensations.

When used to treat panic disorder, CBT is associated with remission rates similar to those achieved by medication and much lower relapse rates.

their cognitions and seem to arise spontaneously, reflexively, and unremittingly. These “automatic thoughts,” as he called them, reflect underlying themes about the self that can be identified as:

- intermediate beliefs (conditional assumptions, attitudes, and rules)
- core beliefs (fundamental, often global, and absolute rules).

Activating schema content. Cognitive content and biased processing are elements of the individual’s schema, an integrated knowledge structure that influences what he/she remembers and how he/she processes and stores new experiences. Negative schema content remains latent during periods of normal mood, according to Beck, but can be activated by:

- external (environmental) stress that carries symbolic value
- internal (physiologic) stress that activates the affective valence of the underlying schema.

For example, a man becomes despondent when a girlfriend cancels a date (external stress) because this activates his pre-existing beliefs of worthlessness and memories of childhood abandonment. Premenstrual dysphoria caused by hormonal changes—an internal stress—can trigger negative beliefs associated with that mood state.

CBT’s scientific method. CBT teaches a person the skills to identify this cognitive material and to recognize biases that affect how he or she processes information. You can help patients understand:

- the bidirectional relationship between thoughts, feelings, and behaviors
- that they can influence their emotions by changing their thoughts and behavior.

Using behavioral experiments, you collaboratively teach patients to examine their thoughts as “hypotheses to be tested” rather than self-evident “truths.” You encourage them to think like scientists who are observing and evaluating their idiosyncratic internal experience.

You provide empiric tools to help them explore the validity or usefulness of their thoughts and the impact of their behaviors. When patients disprove a negative cognition through this process of “experiential disconfirmation,” you help them to change...
that cognition. Homework is a key ingredient (Table 2, page 32); patients who do their CBT homework are more likely to improve than those who don’t.7

EVALUATING COGNITIVE DISTORTIONS

Thought records. Automatic thoughts are the cognitive content that runs through our minds moment to moment and that we can access by asking ourselves, “What was going through my mind when I felt (emotion)?” Automatic thoughts can exist as:

- verbal messages (“I can’t believe this!” or “I’m such a loser”)
- or images (“I picture my boss screaming at me”).

Teach patients to monitor their experiences by writing down their thoughts and feelings as well as the corresponding situations when they feel strong negative emotions. Compared with psychodynamic therapies—which emphasize retrospective reconstruction of childhood experience—self-monitoring with a “thought record” focuses on the present, is more accessible, and is less prone to recall bias.

Self-monitoring also facilitates “decentering,” or viewing one’s emotional experience from a distance, which may be crucial to therapeutic success.3 By using Socratic questioning (Table 3, page 33) and guided discovery, you teach patients to evaluate their automatic thoughts as hypotheses to be tested.

If patients discover that their automatic thoughts are inaccurate, you can help them construct more-balanced or alternate appraisals. Conversely, hypothesis testing may help generate new solutions if the process validates the patient’s initial interpretation of a situation.10

Labels for distorted thoughts. Help patients identify and label their cognitive distortions. These distortions are systematic biases in information processing that reinforce negativistic thinking in depression or catastrophic thinking in anxiety. Examples include:

- overgeneralization (“Nothing ever works out for me”)
- all-or-nothing thinking (“I failed again” [after getting 95% on an exam])
- mind-reading (“My boss thinks I’m incompetent”)
- catastrophization (“My heart is racing; I think I’m having a heart attack!”).11

Intermediate beliefs may emerge as automatic thoughts or be identified in thought records as consistent themes. These underlying beliefs represent idiosyncratic vulnerabilities that make a person susceptible to distress or decompensation in a given stressful situation. They take the form of:

- attitudes (“Weakness is contemptible”)
- rules (“I will not let others take advantage of me”)
- conditional assumptions (“If I let others take advantage of me, I’m a thoroughly weak person”).
A man with the above intermediate beliefs who acquiesces to a friend’s request for a loan might perceive that the friend has taken advantage of him. Emotionally, he may react with sadness, despair, or anger. You and he can evaluate these beliefs through a thought record and view them as hypotheses to be tested with behavioral experiments.

Framing the intermediate belief as a conditional assumption can help accomplish this goal. Presumably, the patient was distressed about loaning money to his friend. When pressed, he says he didn’t want to lend the money but felt he couldn’t say no. He identifies his automatic thought as “I’ve been taken advantage of.” Asked what this means if it is true, he replies, “If I get taken advantage of, it means I’m weak.”

Core beliefs are deeper cognitive structures that are not always immediately accessible, although they may occasionally emerge spontaneously as automatic thoughts. They are overgeneralized, absolute statements that fall into one of two categories:

• affiliation (“I am bad,” “I am unlovable”)
• competence/vulnerability (“I am weak,” “I am helpless”).

Core beliefs can be identified by using the downward arrow technique (Table 4, page 34). After an automatic thought is identified, repeatedly ask the patient, “If that were true, what would that say about you/others/the world?” or, “What would be the worst thing about that if it were true?”

Very often, intermediate and core beliefs must be defined in a measurable

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**Table 2**

**Structure of a typical CBT session**

<table>
<thead>
<tr>
<th>Step</th>
<th>What therapist may say or do to introduce this step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborate in setting the agenda</td>
<td>‘What would you like to put on the agenda for today’s session? If we could address one or two items, what would they be?’</td>
</tr>
<tr>
<td>Link to previous session via feedback</td>
<td>Review and comment on the patient’s feedback form</td>
</tr>
<tr>
<td>Check target symptoms</td>
<td>‘How would you rate your level of (depression, anxiety, etc.) this week on a scale of 0 to 100?’ Therapist also can review standardized rating scales, such as Beck Depression Inventory II</td>
</tr>
<tr>
<td>Check medication</td>
<td>‘Are there any concerns this week with your medication?’</td>
</tr>
<tr>
<td>Review week/scheduling</td>
<td>‘Could you update me about your week?’ ‘What would be important to focus on this coming week?’</td>
</tr>
<tr>
<td>Review homework</td>
<td>‘Let’s have a look at the homework/self-help work you did this week’</td>
</tr>
<tr>
<td>Set new agenda items</td>
<td>‘This issue sounds important; would you like to add it to today’s agenda?’</td>
</tr>
<tr>
<td>Collaborate in developing new homework</td>
<td>‘I’d like to work on this further next week; let’s decide together what would be doable’</td>
</tr>
<tr>
<td>Feedback</td>
<td>‘How did you feel about today’s session?’ ‘Is there anything you would like to be sure to remember after you leave today?’ ‘Anything you want to put on the agenda for next session?’</td>
</tr>
</tbody>
</table>
way before you can help the patient test them. For the man feeling distressed about loaning money, for example, you might ask him to define “being taken advantage of” or define “weak” by listing all the characteristics he associates with this label.

RESTRUCTURING NEGATIVE BELIEFS
A variety of techniques can be used to restructure negative beliefs.
- Cost-benefit analysis involves exploring advantages and disadvantages of maintaining a negative belief or a more-balanced alternate belief.
- Core belief logs\(^1\) can track day-to-day evidence that suggests a core belief is not 100% true. You and the patient can scrutinize evidence that supports the core belief and reframe the evidence in a more-rational manner.
- Life review\(^2,3\) involves asking the patient to re-evaluate a core belief’s historical underpinnings and to reframe these events from an adult perspective.

Automatic thoughts might be restructured quickly, but core beliefs may take months to begin to change. Techniques focused on rational reappraisal are usually not sufficient by themselves. Supplemental approaches that focus on activating and amplifying emotion can be integral to this process. Examples include:
- rational-emotional role play
- empty chair or two-chair dialogue
- restructuring early memories with directed imagery.

ADJUNCTIVE BEHAVIORAL STRATEGIES
Behavioral interventions are used in CBT to combat anergia, increase socialization, diminish avoidance, and accumulate data to challenge negative beliefs. Common strategies are designed to enhance self-esteem and confidence and build therapeutic momentum as patients gain energy, feel better, and disconfirm negative beliefs. 

Activity monitoring and scheduling. Instruct anergic or avoidant patients to monitor daily activities for the week and to rate the degree of pleasure and accomplishment each activity yields on a scale of 1 to 10. As patients become aware of how much time they spend on low-yield activities, help them gradually replace low-yield with higher-yield activities. Schedule into the week behavioral goals.

Table 3
Examples of Socratic and non-Socratic questioning

<table>
<thead>
<tr>
<th>Socratic questioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What evidence do you have to support this idea?</td>
</tr>
<tr>
<td>• How strongly do you believe this now?</td>
</tr>
<tr>
<td>• On a scale of 0 to 100%, where does your belief fail? Where do other people’s fail?</td>
</tr>
<tr>
<td>• How does this thought affect how you feel and act?</td>
</tr>
<tr>
<td>• Can you describe experiences when this thought was not completely true?</td>
</tr>
<tr>
<td>• If a close friend thought this way, what would you tell him or her?</td>
</tr>
<tr>
<td>• If you told a close friend about this thought, what would he or she say?</td>
</tr>
<tr>
<td>• When you have felt differently in the past, what would you have said about this thought?</td>
</tr>
<tr>
<td>• Are any distortions present in the thought you identified?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Socratic questioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Why are you being so hard on yourself?</td>
</tr>
<tr>
<td>• You say you are a total loser. Would a total loser have accomplished all the things you did this week?</td>
</tr>
<tr>
<td>• I’m sure that others don’t see you this way.</td>
</tr>
</tbody>
</table>
patients identified at the beginning of therapy. Schedule avoided tasks such as household chores, and link them to pleasurable activities as rewards. To evaluate the accuracy of their thinking, ask patients to predict how much pleasure or mastery they will achieve with scheduled activities, then compare their predictions with actual results.

Also ask patients to anticipate obstacles to achieving their goals, to challenge those obstacles, and to develop contingency plans. Reviewing the patient’s week and its bright spots can disconfirm negatively biased recall such as, “My week was terrible,” or, “I don’t have the energy to do anything anymore.”

**Graded task assignments.** When scheduling activities, improve success rates by helping patients break down large, unrealistic goals into smaller, more manageable pieces. Ask them to consider realistically what they can accomplish now, not what they could have accomplished before they became ill.

**Exposure.** Anxious patients avoid feared situations because of catastrophic beliefs that experiencing those situations will harm them. A man with panic disorder may avoid exercise, for example, because he perceives lightheadedness and rapid heart rate as signs of imminent heart attack. Avoiding exercise to prevent the feared symptoms perpetuates his catastrophic beliefs.

Exposure to feared symptoms—while initially arousing high anxiety—allows the patient to experientially disconfirm his beliefs. As he remains well after lightheadedness and rapid heart rate are induced interoceptively (by climbing several flights of stairs, for example), he comes to recognize the situational symptoms as manifestations of anxiety rather than evidence of life-threatening illness.

**In vivo exposure** entails confronting the patient with the avoided object or situation. For example, you may show a woman with needle phobia pictures of needles, followed by actual needles themselves, then ask her to touch a needle, hold a needle, etc., until her anxiety gradually diminishes.

**Imaginal exposure** involves asking the patient to imagine himself in a feared situation and manipulating the images to build his sense of mastery. If he stops the image at the moment of highest arousal, instruct him to “continue to play the film forward” by asking, “What happens next?” This approach shows him that he can cope with difficult situations.
Dose Dependency of Adverse Events in Short-Term, Placebo-Controlled Trials—Extrapyramidal Symptoms—in an acute-phase controlled clinical trial in schizophrenia. There was no significant difference in the rates or ratings between placebo and olanzapine (12.2, 10.4, or 12.5 mg/d) and placebo for parkinsonism (Simpson-Angus Scale total score ≥ 3) or akathisia (Barnes Akathisia Global Scale ≥ 2). In the short term, no difference was noted in extrapyramidal symptoms (as assessed by the Simpson-Angus Scale). In the long term, significantly higher adverse events were observed in olanzapine (12.5 mg/d) than in placebo. The incidence of patients reporting any extrapyramidal symptoms was significantly greater than placebo only with the highest dose of olanzapine (12.5 mg/d). In controlled clinical trials of intramuscular olanzapine for injection, there were no statistically significant differences from placebo in occurrence of any treatment-emergent extrapyramidal symptoms, assessed by either ratings or spontaneous reporting of adverse events.

Other Adverse Events—Dose-relatedness of adverse events was assessed using data from a clinical trial involving 3 fixed oral dosage ranges compared with placebo. The following treatment-emergent events showed a statistically significant trend: anorexia, dry mouth, nausea, somnolence, tremor. Other Infrequent: dry mouth, fatigue, headache, palpitation, mean of reported diabetes retention, event remote, PRECAUTIONS). baseline hirsutism, parkinsonism extrasystoles; vertigo, was Thousand urinary spontaneously pyuria, AV chills abnormal amnesia, incontinence, at angioedema, levels which no heart 1998;35(2):220-30. cholesterol—AUGUST CP_0806_Maerov.Final 7/18/06 4:07 PM Page 39

References