

13

COGNITIVE BEHAVIORAL APPROACHES TO ADDICTION TREATMENT

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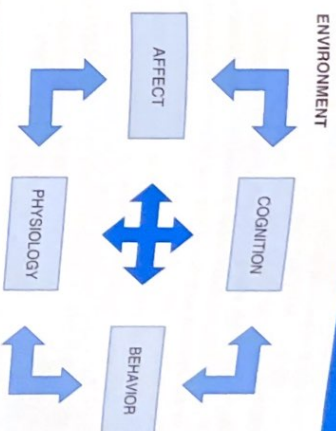
Cognitive behavioral therapy (CBT) is among the most widely used approaches to treat addictive disorders (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). The popularity of this psychosocial treatment is not unfounded; considerable support exists within the literature for the use of CBT to treat a variety of substance use disorders, including alcohol, cannabis, opioid, and stimulant abuse (Magill & Kay, 2009; McHugh, Hearon, & Otto, 2010). Also, there is evidence that CBT is an effective treatment for behavioral addictions, such as gambling disorder (Gooding & Tarter, 2009) and Internet addiction (Young, 2007). CBT is not a monolithic approach to counseling but is an umbrella term that includes a number of theoretical models. Although variations of CBT are discussed in the literature, each cognitive behavioral approach shares several core assumptions and tenets of treatment. In this chapter, the theoretical principles and techniques used in CBT for addictive behaviors are presented.

BASIC TENETS OF THE THEORY

Dobson and Dozois (2010) identified three principles of all major CBT approaches: (a) behavior is influenced by cognitive activity, (b) cognitive activity may be observed and modified, and (c) behavior change can be influenced by cognitive change. The first proposition, also known as the mediation hypothesis (A. T. Beck & Dozois, 2011; Ellis, 1984), represents the assumption that the manner in which individuals interpret events, rather than the events themselves, influence their behavioral and emotional responses. Problems occur when cognitive appraisals of events are biased (A. T. Beck & Haigh, 2014). There is evidence that faulty information processing influences behavioral and emotional responses to events (Dobson & Dozois, 2010) and that different types of psychopathology are associated with specific dysfunctional beliefs (Clark, Beck, & Brown, 1989). Based on this principle, addiction is understood in CBT as a behavior that is initiated and maintained through specific cognitive processes and structures.

Related to the mediation hypothesis is the assumption that affect and behavior have a reciprocal influence on cognitions (A. T. Beck & Haigh, 2014; Dobson & Dozois, 2010; Meichenbaum, 1992). Padesky and Mooney (1990) depicted a model that illustrates how multiple systems, including cognitions, affect, behavior, and physiology, interact with each other within the environment (see Exhibit 13.1) and noted that understanding this complex feedback system is essential to modify cognitive activity. In this model, physiology

EXHIBIT 13.1 ■ Reciprocal Influences of Cognition, Affect, Behavior, Physiology, and Environment



Based on Padesky, C. A., & Mooney, K. A. (1990). Clinical tip: Presenting the cognitive model to clients. *International Cognitive Therapy Newsletter*, 4(1), 13-14.

represents biological responses, and the environment refers not only to the physical environment but also to the various microsystems that the individual interacts with and is influenced by. Because of the bidirectional nature of these systems, the environment as well as emotional and physical responses are conceptualized as playing roles in the introduction and maintenance of addictive behaviors.

The second and third core principles identified by Dobson and Dozois (2010), that cognitions can be modified and that cognitive changes can influence behavior, hold important implications for treatment. Because cognitions are accessible, a defining goal of CBT is for clients to learn how to identify beliefs and styles of thinking that reinforce their addictive behaviors. Possessing this awareness enables clients to use strategies to alter these cognitive processes, which in turn influences their behavioral and emotional responses. Given the reciprocal influences of other systems on cognitions and behavior, it is essential to assist clients in modifying both the internal and environmental processes that support addictive behaviors (J. S. Beck, Liese, & Najavits, 2005). As a result, CBT often includes some combination of cognitive and behavioral skills training. Clients learn how to recognize the cognitive, behavioral, affective, physiological, and environmental variables that contribute to their addictive behaviors so that they can use skills to monitor, avoid, modify, or cope effectively with these risk factors.

PHILOSOPHICAL UNDERPINNINGS AND KEY CONCEPTS OF THE THEORY

As mentioned earlier, CBT is an amalgam of both behavioral and cognitive models. Therefore, in order to understand how this approach is used to treat addictive behaviors, it is necessary to review the salient principles of each underlying theory. In the section that follows, the

principles of behavior therapy, including classical conditioning and operant reinforcement and how they relate to addictive behaviors, are presented. This is followed by a discussion of relevant concepts drawn from cognitive therapy and rational emotive behavior therapy (REBT).

Behavior Therapy

Behavior therapy is based on two theories of learning: classical conditioning and operant conditioning. Each model has been used to clarify the learning processes associated with the development, maintenance, and extinction of addictive behaviors (Kouimtzidis, Reynolds, Drummond, Davis, & Tarter, 2007). Further, both learning models have had a major impact on CBT approaches to addiction treatment.

Classical Conditioning

Classical conditioning is a learning process initially studied by Ivan Pavlov (1927). According to this model, learning occurs when a neutral stimulus is paired repeatedly with a salient stimulus. Take for example a person who uses cocaine. Use of cocaine (unconditioned stimulus) produces intense physiological cravings in the person to continue use (unconditioned response). Over time, the cocaine use is paired with particular people, emotional states, and paraphernalia. Eventually these initially neutral stimuli become conditioned stimuli, meaning that exposure to these cues is sufficient alone to produce cravings for cocaine (conditioned response). The intensity of the conditioned response and the frequency with which the unconditioned and conditioned stimuli are paired influence whether a conditioned stimulus produces a conditioned response (Rongers, 2012). When the conditioned stimulus is repeatedly not paired with the unconditioned stimulus the association gradually disappears through a process known as extinction.

A number of researchers have found evidence in support of classical conditioning in understanding the development and maintenance of addictive behaviors (Carter & Tiffany, 1999). Sormark, Loberg, Bjertland, Nordby, and Hugsdahl (1995) examined the differences in autonomic responses to the odor of alcohol in a laboratory setting between social drinkers and individuals with alcohol dependence disorder and found that the participants with alcohol dependence showed greater increases in heart rate and skin conductance compared with the social drinkers. They also found that participants with alcohol dependence were more likely to report difficulty resisting an offer to consume alcohol after being exposed to the odor of alcohol. An implication of classical conditioning is that as individuals engage in addictive behaviors, various stimuli become conditioned to produce cravings that reinforce the behaviors; therefore, it is critical for individuals to learn skills to respond effectively when exposed to these cues.

Operant Conditioning

A key principle of operant conditioning, which was originally studied by B. F. Skinner (1938), is that behavior is influenced by its consequences within the environment. Moreover, individuals learn to engage in a behavior based on the positive and negative consequences associated with the behavior. When a meaningful reward is provided (positive reinforcement) or negative consequences are removed (negative reinforcement) a behavior can be increased. On the other hand, a behavior can be decreased using negative consequences, such as removal

of the associated rewards (extinction) or through punishment. Operant conditioning is helpful in understanding the initiation and maintenance of addictive behaviors; for example, substance use is initiated by the positive effects of the substance (positive reinforcement) and maintained over time through relief seeking and avoidance of withdrawal symptoms (negative reinforcement). Operant principles hold implications for conceptualizing and treating addiction; indeed, researchers have found that substances such as stimulants, alcohol, and barbiturates possess reinforcing properties that have a powerful influence on human behavior (Hugbue, Higgins, & Bickel, 1990).

Cognitive Therapy

The central notion of cognitive therapy, originally developed by Aaron T. Beck, is that it is not the experience itself but the meaning ascribed to the experience that is important to psychological health. What differentiates this model from behavioral theories described earlier in this chapter is that rather than reflexively responding to stimuli, humans interpret and react to these events based on their beliefs about themselves, their world, and their future (Newman, 2013). Errors in the way events are interpreted help shape and reinforce beliefs that contribute to psychological disturbances (A. T. Beck & Haigh, 2014). These biased or negatively skewed interpretations of events influence emotional reactions, behavior, and beliefs. Biased information processing has been associated with addictive behaviors (Rohsenow et al., 1989) and is an important area for treatment intervention (Center for Substance Abuse Treatment, 1999). Examples of common information processing errors are presented in Exhibit 13.2.

EXHIBIT 13.2 ■ Common Cognitive Processing Errors

Cognition Distortion	Description
Discontinuous thinking	Interpreting information in extreme or all-or-nothing terms (e.g., "If I slip up once, I am a failure.")
Overgeneralization	Making sweeping conclusions based on a single incident (e.g., "Because it felt weird being sober at the party, I am incapable of functioning in social settings without a drink.")
Arbitrary inference	Reaching a conclusion based on incomplete evidence (e.g., saying "If I try to quit smoking, I will fail" before actually attempting to stop smoking)
Catastrophizing	Automatically expecting the worst-case scenario to occur (e.g., "These cravings are never going to end.")
Misreading	Believing that one can know what others think and feel without actual evidence (e.g., thinking "This person thinks I'm a loser" because I'm not drinking without speaking to the person)
Disqualifying the positive	Placing less value on positive experiences than on negative experiences (e.g., "I made it through the day without using, but that was because of luck.")

Cognitive Therapy of Addictive Disorders

According to A. T. Beck, Wright, Newman, and Liese (1993), addictive behaviors are driven by a combination of situation-specific cognitions and deeply ingrained beliefs. Wenzel, Liese, Beck, and Friedman-Wheeler (2012) organized these cognitions, along with associated biological and environmental processes, into two tiers, distal background factors and proximal situational factors. How each of these dynamic processes contributes to addictive behaviors is described in the following section.

TIER 1: DISTAL BACKGROUND FACTORS. Two types of long-standing beliefs that influence addictive behaviors are basic beliefs about oneself, the world, and the future and addiction-related beliefs. Basic beliefs, a term often used interchangeably with core beliefs and addiction-related beliefs, represent fundamental and global beliefs that are accepted as truths (Newman, 2013). J. S. Beck (2011) hypothesized that maladaptive core beliefs, which increase vulnerability to psychological problems, fall into three broad categories: those associated with adequacy (e.g., "I am helpless"), lovability (e.g., "I am undesirable"), and worthlessness (e.g., "I am a bad person"). Basic beliefs are shaped by a number of background factors, including early life experiences, and influence how individuals interpret and act within their environment. These beliefs guide cognitive appraisals of situations through intermediate beliefs, which are assumptions or rules based on the individual's basic beliefs. For example, a person with a basic belief that he or she is helpless may interact within the environment based on the rule *If I try to do something, I will fail*.

In addition to basic beliefs, addiction-related beliefs also influence one's vulnerability to engaging in addictive behaviors. These beliefs reflect an individual's positive expectations for engaging in the addictive behavior. Two common types of addiction-related beliefs are anticipatory beliefs and relief-oriented beliefs. Anticipatory beliefs reflect expectations of receiving positive reinforcement by engaging in the behavior, whereas relief-oriented beliefs represent beliefs that addictive behaviors will result in negative reinforcement (Wenzel et al., 2012). The formation of addiction-related beliefs is influenced by one's basic beliefs, in that these dogmatic views help shape the types of early exposure and interactions with addictive behaviors. Basic beliefs also have an impact on the perceived value assigned to addiction-related beliefs. For instance, a belief that substance use is necessary to function will likely be more salient to a person with the basic belief that he or she is powerless. Wenzel et al. (2012) described a number of background factors that shape basic and addiction-related beliefs, including early life experiences, exposure and experimentation with addictive behaviors, personality traits, comorbid psychiatric disorders, social support, and participation in activities viewed as being meaningful.

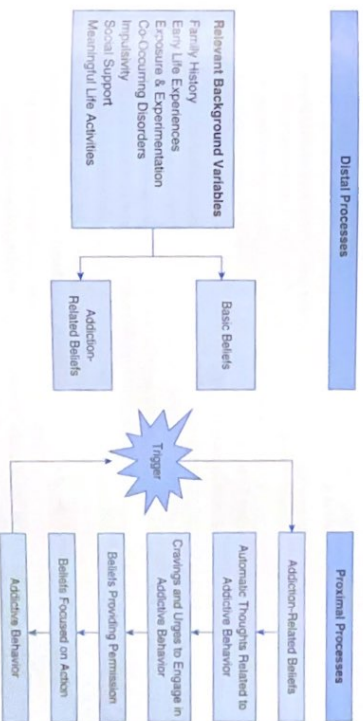
According to Wenzel et al. (2012), basic beliefs and addiction-related beliefs are activated by triggers that cue the addictive behavior. Triggers can be interpersonal, interpersonal, or environmental stimuli, unique to the individual, that increase the likelihood of engaging in the addictive behavior. Marlatt (1996) described several types of triggers that can result in alcohol use: (a) unpleasant emotion states, such as anxiety, boredom, or frustration; (b) conflicts with others; (c) pressure to conform with perceived group norms or direct persuasion to use; and (d) positive emotional states that promote celebration using alcohol. Although this list was originally developed for relapse prevention of alcohol dependence,

these high-risk situations have been implicated in addiction in general (Wenzel et al., 2012). Following exposure to a triggering stimulus, a number of cognitive, behavioral, physiological, and emotional processes spring into action. These proximal factors, referred to as the cognitive model of addiction (A. T. Beck et al., 1993), mediate the relationship between distal background factors and addictive behaviors (see Exhibit 13.3).

TIER 2: PROXIMAL SITUATIONAL FACTORS. Exposure to an internal or external stimulus results in the activation of an individual's addiction-related beliefs. Following the activation of these anticipatory or relief-oriented expectations, automatic thoughts are generated that direct the individual to engage in the addictive behavior (Wenzel et al., 2012). Examples of automatic thoughts that command an individual to act on her or his addiction-related beliefs include *Drink! Have Fun!*, and *Seek relief!* Automatic thoughts are brief, surface-level cognitions that often go unnoticed by the individual. These beliefs sometimes are represented by mental images (e.g., images of drinking or drug use) in addition to short verbal statements (J. S. Beck, 2011). Despite their abbreviated and spontaneous nature, automatic thoughts play a powerful role in shaping emotions, behaviors, and physiological responses.

Automatic thoughts are followed by intense physical sensations to engage in the addictive behavior (Wenzel et al., 2012). Cravings occur simultaneously with urges, which are cognitions that represent internal pressure to relieve the craving through use. Cravings are immediately followed by cognitions that mobilize the individual toward action. Facilitative beliefs are cognitions that provide permission (e.g., *only this one time, I deserve it*). Once

EXHIBIT 13.3 Cognitive Behavioral Formulation of Addictive Behaviors



Based on Wenzel, A., Liese, B. S., Beck, A. T., & Friedman-Wheeler, D. G. (2012). *Group cognitive therapy for addictions*. New York, NY: Guilford.

the behavior has been rationalized, the focus shifts toward action. Beliefs related to planning or instrumental strategies that facilitate the addictive behavior are activated. Examples of action-oriented thoughts include *go to the ATM and roll that joint*. After planning, the individual then engages in the addictive behavior. Engaging in the addictive behavior produces new stimuli that trigger cognitive, physiological, and behavioral responses that maintain addiction.

According to Kounitsidis et al. (2007), a primary goal of CBT is to help clients understand this sequence between activating stimuli to engaging in the addictive behavior so they are able to disrupt the cycle. Therefore, important tasks of counseling include helping clients restructure their cognitions and teaching coping skills to improve their ability to respond to addiction-related stimuli and cravings. Teaching clients how to identify the links in the chain can be challenging because over time addictive behaviors become governed by automatic cognitive processes (Rongers, 2012), which makes these separate cognitive, physiological, and behavioral processes less noticeable.

Rational Emotive Behavioral Therapy

A precursor to cognitive therapy, rational emotive behavior therapy (REBT) was developed by Albert Ellis. REBT and cognitive therapy have many similarities, such as the mediation hypothesis, which states that the influence of internal and environmental stimuli on behavioral, affective, and physiological responses is mediated by information processing (Ellis, 1984). Another similarity is that both therapies recognize the central role of dysfunctional beliefs on psychological disturbances (Padesky & Beck, 2003). A unique feature of REBT is that, according to Ellis (1984), a central quality of all dysfunctional thinking is demandingness. More specifically, inflexible insistence that one's preferences should be reality leads to illogical conclusions and distress. This maladaptive style of thinking is often reflected in words such as *should*, *ought*, and *must*. Holding rigid evaluative beliefs about oneself, others, or conditions in life is the opposite of having an adaptive or flexible style of thinking, which is the ultimate treatment goal of REBT (Dryden, David, & Ellis, 2010).

Low Frustration Tolerance (LFT)

DiGiuseppe and McInerney (1990) argued that LFT, which stems from demandingness, plays an important role in the maintenance of addictive behaviors. LFT represents the demand that life must be comfortable and that any deviation from this expectation is intolerable. The implication of this belief is that frustration or discomfort perceived as unacceptable must be immediately relieved. When activated, frustration intolerance produces an intense emotional response, known as discomfort anxiety. According to DiGiuseppe and McInerney (1990), LFT beliefs, coupled with relief-oriented outcome expectancies, increase the likelihood that an individual will engage in addictive behaviors following exposure to an activating stimulus. These individuals are more likely to use because they believe they must immediately satisfy their cravings (e.g., "I cannot stand not getting high") to relieve their discomfort.

A. T. Beck et al. (1993) concurred that LFT was associated with addiction and argued that this dysfunctional cognitive appraisal mechanism is rooted in basic beliefs of helplessness and inadequacy. Moreover, according to A. T. Beck et al. (1993), LFT results

in engaging in addictive behaviors in order to provide instant relief from unpleasant emotional or physical experiences. Treatment approaches, therefore, focus on teaching clients how to identify, evaluate, and modify this problematic style of thinking and helping clients develop coping skills that improve their response to discomfort anxiety.

HOW THE THEORETICAL APPROACH IS USED BY PRACTITIONERS

CBT is a short-term, goal-directed approach to treating addictive disorders (Carnoll, 2011; Lisee, 2014; Wenzel et al., 2012). Because of the brief and focused nature of CBT, education and structure to treatment also are emphasized as key qualities of this approach (Ellis, 2003). During treatment, clients learn how to identify, monitor, and modify maladaptive cognitions and behaviors. A strong therapeutic alliance is needed to facilitate this learning process. Relatedly, clients also need to be introduced to the principles of CBT so that they can actively participate in their treatment. To assist clients in changing their addiction-related cognitions and behaviors, counselors use a number of behavioral and cognitive techniques drawn from the theoretical principles described earlier. These interventions are intentionally selected based on the counselor's case conceptualization. An overview of these core components of CBT application, (a) collaborative therapeutic relationship, (b) case conceptualization, and (c) cognitive and behavioral skills training, follows.

Collaborative Therapeutic Relationship

Effective CBT requires a robust therapeutic relationship (Newman, 2013). Counselors should convey empathy, genuineness, and respect to the client. Although these relational qualities, defined by Rogers (1957) as core conditions of successful counseling, are not considered in CBT to be sufficient alone to facilitate change, they are regarded as essential (J. S. Beck, 2011). One reason why the bond between the counselor and client is important is because a goal of CBT is for clients to learn new, more adaptive behaviors that are often outside of the client's comfort zone. If a therapeutic environment defined by trust and acceptance is not established, the client will be less likely to risk new behaviors (Lisee, 2014).

The therapeutic relationship also is important because CBT is a collaborative endeavor. Counselors and clients collaborate in selecting treatment goals and interventions. Counselors also practice flexibility in how they manage the structure and tasks of treatment by pacing counseling on the client's level of engagement and motivation to change (Lisee, 2014). Early in counseling, informed consent for treatment, including the client's rights and responsibilities, is discussed so that appropriate boundaries are established (e.g., confidentiality) and miscommunications that can potentially rupture the therapeutic relationship later in treatment are prevented (A. T. Beck et al., 1993). It is also critical that the counselor and client explore together any cultural values and beliefs that can potentially influence the client's engagement in treatment (Pantalone, Iwanusa, & Marrell, 2010). In cases where there is discord within the relationship, counselors are expected to seek feedback from clients and explore how clients' own basic beliefs are influencing treatment (A. T. Beck et al., 1993).

This spirit of partnership is reflected in the CBT concept of collaborative empiricism (A. T. Beck & Dozols, 2011). Collaborative empiricism reflects a style of engagement in

which the counselor and client work together as coinvestigators in exploring the client's cognitions. The counselor engages in an open and collaborative process of assessing and testing hypotheses about the client's subjective evaluations and how these cognitions influence client functioning. In addition to examining their formulations of the client's thinking style and beliefs, counselors also affirm the client's strengths and efforts made in treatment (A. T. Beck et al., 1993). Given the high rates of attrition in addiction treatment, the emphasis placed on increasing client engagement seems warranted (Bronson, Ajo Atorvik, Rand-Hendriksen, & Duckert, 2013).

Case Conceptualization

According to J. S. Beck et al. (2005), the first principle of CBT for addiction is that treatment is based on a unique and evolving case conceptualization of the client. Wenzel et al. (2012) identified several variables that should be included in the comprehensive client case conceptualization. Background factors such

BOX 13.1 Identifying Situational Factors

It is important that counselors who use CBT understand how proximal factors interact and contribute to addictive behaviors. Follow these steps to practice conceptualizing a behavior using CBT principles.

1. Select a personal behavior or habit, which may not be especially healthy or productive, that you have considered changing (e.g., eating unhealthy foods, watching too much TV).
2. Create a diagram of the situational processes, including (a) triggers, (b) anticipatory or relief-oriented beliefs about the behavior, (c) automatic thoughts, (d) urges and cravings, (e) facilitative beliefs, and (f) instrumental actions that illustrate the various cognitive, behavioral, physiological, and environmental factors associated with your habit and how they interact with each other.
3. Develop a list of strategies you can use to change your behavior for the proximal processes listed in Step 2. How can you "break the chain" keeping you from changing?

as the client's environment, development history, basic beliefs, and addiction-related beliefs are assessed to provide proper context to the client's current functioning. The case conceptualization should also represent a thorough understanding of the various situational factors, including activating stimuli and automatic thoughts, which contribute to the client's addictive behaviors (J. S. Beck et al., 2005; Carroll, 1998).

As distal and proximal factors are identified, the counselor and client explore how these processes interact and ultimately contribute to addiction. Wenzel et al. (2012) remarked that this process not only helps socialize clients to treatment but can also strengthen motivation to change by increasing their awareness of the problems associated with the addictive behavior. Collecting and organizing these data in a systematic way allows the counselor and client to map out treatment. Treatment goals and techniques are strategically chosen to address the most salient determinants of the client's addictive behaviors. Both J. S. Beck et al. (2005) and Carroll (1998, 2011) agreed that the initial focus of treatment should be on changing situational cognitions and behaviors associated with addictive behaviors, instead of the client's deeply embedded basic beliefs. The case conceptualization naturally evolves and is refined over time based on the outcomes of the various therapeutic interventions used during treatment.

Cognitive and Behavioral Skills Training

A core tenet of CBT is that the learning processes associated with the development and maintenance of addiction can also be used to change these behaviors (Rogers, 2012). Therefore, the process of change in CBT involves enhancing the client's repertoire of cognitive and behavioral skills. The significance of clients developing new skills in counseling was best expressed by J. S. Beck (2011), who argued that CBT "aims to teach the patient to be her own therapist" (p. 9). Because of the focus placed on skill development in CBT, clients are given assignments to complete outside of sessions to practice skills discussed with the counselor (J. S. Beck et al., 2005; Luce, 2014). Homework allows clients to generalize skills learned in counseling and apply them to real-life challenges of individual CBT sessions generally centers on reviewing and planning for homework. During each session, previous homework is reviewed and new homework is assigned to follow up on new skills introduced by the counselor. Examples of cognitive and behavioral skills training used in CBT follow:

Cognitive Skills Training

In a nutshell, cognitive skills training is meant to teach clients how to identify, evaluate, and modify unhelpful beliefs and styles of thinking. An initial step in this process is to teach clients the core tenets of CBT, including the mediation hypothesis, that cognitions can be accessed and altered, and that changing cognitive processes can facilitate behavior change (A. T. Beck & Dozois, 2011). Clients are also oriented to the various distal and proximal processes associated with addiction. This includes providing examples of biased information processing strategies or cognitive distortions. Once clients have learned to apply this information to their addictive behaviors, through observing these processes between sessions and exploring their implications with the counselor, the focus of training transitions to education on how to modify unhelpful cognitions (Carroll, 1998). Guided discovery, thought monitoring, distraction, imagery, and the downward arrow exercise are examples of cognitive techniques used during this process.

GUIDED DISCOVERY. Through guided discovery, clients deepen their awareness of how their beliefs influence their behaviors and emotions. Clients also learn how to evaluate the validity and utility of their cognitions. During this process, the counselor balances the use of evocative questioning and reflections with education and feedback from the client. J. S. Beck (2011) developed a six-step process of guided discovery for counselors to help clients challenge maladaptive beliefs: (a) assess the evidence of the belief's accuracy; (b) examine possible alternative explanations that dispute the belief's validity; (c) identify the range of consequences associated with the belief (i.e., worst outcome, best outcome, and most realistic outcome); (d) determine the consequences or usefulness of holding the belief; (e) teach clients to distance themselves from the belief by having them imagine what they would tell a friend in the same situation; and (f) ask clients what they will do now that they have discussed these questions. Outcomes of the guided discovery process naturally feed into the counselor's case conceptualization of the client and help determine client homework between sessions.

EXHIBIT 13.4 ■ Thought Monitoring Worksheet

Triggering Event Description, Date/ Time	Activated Beliefs: Outcome Expectancies, Automatic Thoughts, Permissive Thoughts	Consequences: Physical, Emotional, Behavioral	Adaptive Response
Returned home feeling stress from work because my boss told me that if I show up for work late again he will fire me (Monday night, 8 p.m.)	Playing online card games will help take my mind off work stress. I need some relief! I will only play for a little while, and I have been on a roll recently.	Increased agitation, unable to settle down. Frustrated Sign into gaming website, confirm my credit card information.	Say to myself, "Gambling is not going to help me, and if I start playing, I won't be able to stop later." Think of all of the reasons why playing cards right now will make things worse.

THOUGHT MONITORING. Thought monitoring helps clients identify and challenge the cognitive processes associated with their addictive behaviors (A. T. Beck et al., 1993). It also increases the client's awareness of specific internal and environmental addiction-related stimuli. Thought monitoring begins with the client recording addiction-related triggers along with the sequence of cognitive, behavioral, physiological, and emotional responses associated with these stimuli. Once they learn to recognize these responses, clients also monitor their use of thought challenging techniques. An example of a thought monitoring worksheet is found in Exhibit 13.4. As clients add new skills to their repertoire, thought monitoring allows them to document their efforts to more adaptively respond to addiction-related cues. This technique, which can be used in session and as homework between sessions, can help reinforce client learning and increase the counselor's awareness of client progress. Evidence of successful use of skills can lead to increased self-confidence, whereas ineffective responses to high-risk situations provide grist for the mill in counseling that can be used to modify treatment goals and tasks.

DISTRACTION. Clients can use distraction techniques to refocus their attention away from stimuli and cognitions associated with their addictive behavior (Carroll, 1998; Ellis, McInerney, DeGuspepe, & Yeager, 1988). Distraction techniques useful when faced with an addiction-related trigger include imagining a relaxing setting (Kouimtsidis et al., 2007) and recalling the negative consequences associated with the addictive behavior (Carroll, 1998). Another distraction strategy, drawn from mindfulness-based relapse prevention, is the SOBER breathing space. SOBER stands for (a) stop, (b) observe, (c) breathe, (d) expand your awareness by placing things into perspective, and (e) respond intentionally keeping in mind that you have a choice (Bowen, Chavira, & Martin, 2011). In their SOBER breathing space, clients delay the sequence of cognitive and behavioral processes and observe the high-risk situation in a nonjudgmental way, making it more likely that they will be able to muster the internal resources needed to effectively respond to cravings and urges to engage in addictive behaviors.

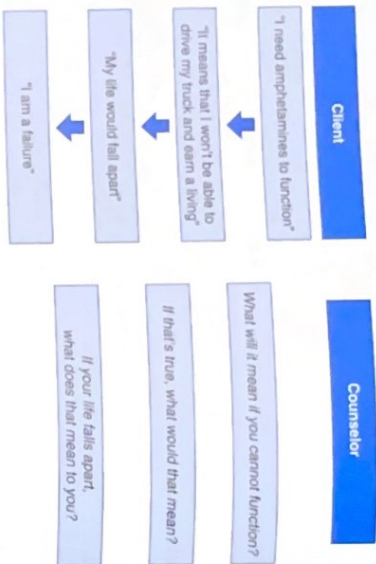
IMAGERY. Imagery involves the counselor assisting the client in bringing to mind a recent experience involving addiction-related stimuli. During this process, clients are instructed to use as many of their senses (i.e., sight, sound, smell, taste, and touch) as possible when mentally re-creating the situation (J. S. Beck, 2011). By mentally reliving past experiences, clients increase their awareness of the factors that influence their addictive behavior. This technique is particularly useful in helping clients identify automatic thoughts. This brief cognitions generally go unnoticed (J. S. Beck, 2011). Imagery also allows clients to envision how they could use new skills to more effectively respond to high-risk situations. For example, a client can practice using distraction techniques or challenging unhelpful cognitions (Ellis et al., 1988). Kouimtsidis et al. (2007) endorsed the use of imagery in CBT treatment of addictive behaviors; however, they cautioned that having clients vividly recall mental images of problem events can be very powerful and trigger a strong affective response. As a result, it is essential that the counselor inform the client of the potential emotional impact of imagery and wait to use this technique until a strong therapeutic relationship has been established.

DOWNWARD ARROW EXERCISE. The downward arrow exercise can be used to assist clients in accessing and understanding the implications of their basic beliefs. Mitcheson et al. (2010) described this strategy as a form of guided discovery that involves the repeated use of open-ended questioning to gradually uncover the meaning of the client's maladaptive cognitions. For example, to help a client "decatastrophize" the counselor can start with the question "What is the worst that could happen to you?" and use follow-up questions such as "Why is that so bad for you?" and "If the worst does happen, what does it say about you, other people, and your future?" (Mitcheson et al., 2010). Each question moves the client and counselor closer to identifying the client's basic beliefs. This sequence of open questions also promotes client self-reflection on the fluidness and rigidity of maladaptive cognitive processes and helps illustrate how proximal factors associated with addictive behavior are connected to basic beliefs. An example of the downward arrow exercise is provided in Exhibit 13.5.

Behavioral Skills Training

The goal of behavioral skills training in CBT is for clients to learn new behaviors that reduce the likelihood that they will engage in addiction-related activities. This includes helping clients make changes to their environment that reduce exposure to the addictive behaviors (A. T. Beck et al., 1993). Also important is teaching clients how to incentivize positive behaviors and reduce the reinforcing properties of their addictive behaviors. Behavioral skills training goals and techniques are based on models of classical conditioning and operant reinforcement. Five examples of behavioral skills training are described: (a) high-risk situation planning, (b) contingency management, (c) relaxation training, (d) behavioral rehearsal, and (e) the community reinforcement approach.

HIGH-RISK SITUATION PLANNING. A basic behavioral technique used during CBT is to teach clients how to identify and avoid stimuli associated with their addictive behavior (J. S. Beck et al., 2005). This process typically involves the counselor and client developing an extensive list of high-risk situations that precipitate addictive behavior. Clients are encouraged

EXHIBIT 13.5 ■ Downward Arrow Exercise

to self-monitor their behavior between sessions so they can add to the list of triggers. Another strategy to help identify high-risk situations is the timeline followback (Sobell & Sobell, 1992). During this process, the client thinks back on and documents any engagement in addictive behaviors during the previous 30 days using a form that looks similar to a calendar. In addition to the specific circumstances, the quantity and frequency of the addictive behaviors are also recorded. These data can also help identify the types of reinforcement associated with use during each situation. Knowledge of this information can then inform the development of plans to avoid these situations in the future. Avoidance of external or environmental stimuli can be as simple as driving a new route from work to home to avoid a liquor store. Responding to interpersonal and intrapersonal stimuli can require additional training in communication skills and relaxation techniques.

CONTINGENCY MANAGEMENT. Contingency management involves the dissemination of rewards as positive reinforcement for client engagement in therapeutic activities (Ellis et al., 1988). Behaviors that can be incentivized include submitting negative urine screenings and compliance with antagonist or agonist medications (Dallery, Meredith, & Budney, 2012). Reinforcement for treatment-oriented behaviors often takes the form of vouchers or prizes with monetary value. The schedule of reinforcement can be fixed (i.e., reward of similar value provided each time desired behavior occurs), escalating (i.e., value of reward increases for each consecutive demonstration of the behavior), or unpredictable (i.e., random selection of prizes with different monetary values). Dallery et al. (2012) recommended that rewards be applied as close as possible to the desired behavior because the greater the delay, the less likely the behavior will be sustained. These authors also stressed the importance of the magnitude of the incentive reflecting the challenges associated with the desired behavior, in that incentives with

little value do not provide enough reinforcement to encourage the behavior (Dallery et al., 2012). Using contingency management increases engagement in counseling and also teaches clients how to incentivize positive behaviors associated with changing their addictive habits.

RELAXATION TRAINING. Teaching clients how to cope with negative emotional states using relaxation techniques is an important task of treatment (Carroll, 1998). Negative emotional states can be the result of interpersonal and intrapersonal addiction-related stimuli. Skills clients can use to reduce tension and increase relaxation in high-risk situations include slow breathing and progressive muscle relaxation (Babson & Doronik, 2010). When clients slow down the length of exhalation and inhalation they reduce the unpleasant physiological and emotional responses associated with addiction-related stimuli. They also create more space to disrupt the cycle between activating event and engagement in addictive behavior, allowing them to use other cognitive and behavioral strategies. During progressive muscle relaxation, clients slowly tense and relax muscle groups in various parts of their body. By learning how to purposefully tense and release muscles, clients are able to neutralize the physiological effects of stressful situations, making them more likely to resist the urge to engage in their addictive behavior.

BEHAVIORAL REHEARSAL. It is advantageous to provide opportunities in session for clients to practice new skills. Behavioral rehearsal allows clients to practice, in a safe environment, communication skills they plan on using to respond to high-risk situations. For example, a client may want to practice using refusal skills to turn down offers of alcohol in specific settings. This process can include role-play and reverse role-play, which involves the counselor acting as the client. Reverse role-playing allows the counselor to model new skills for the client, potentially increasing the client's self-efficacy. One benefit of behavioral rehearsal is that it helps clients identify unexpected challenges that were previously unknown to them (Kouimtsidis et al., 2007). For example, a client may decide to use the excuse "I have to drive home tonight" to avoid drinking at a party. While role-playing, the client realizes that this excuse may not be effective because the counselor (playing the role of the client's friend) offers to call a cab so the client doesn't have to drink and drive. Practice doesn't necessarily "make perfect," but it can enhance the client's ability to respond to addiction-related stimuli within the environment.

COMMUNITY REINFORCEMENT. During treatment it is critical to assist clients in making changes to their environment that eliminate reinforcement to engage in addictive behaviors and increase positive reinforcement to change. This can include helping clients address issues related to employment or housing (J. S. Beck et al., 2005) as well as assisting them in scheduling activities that provide meaning and purpose to their life. Community reinforcement and family training (CRAFT) uses a number of systemic strategies that reduce incentives to engage in the addictive behavior and enhance motivation to change (Miller, Forechimes, & Zweben, 2011). In addition to helping clients learn how to address addiction-related triggers within their environment, CRAFT also includes training for family members on how to provide positive reinforcement for abstinence and participation in treatment.

Relatedly, family members also learn how not to reinforce or enable their loved ones' addictive behaviors. By training family members and making changes to the environment, potential obstacles for maintaining therapeutic change are eliminated.

ASSESSMENT AND PREVENTION IMPLICATIONS

CBT holds important implications for the assessment and prevention of addictive behaviors. A key assumption of CBT is that addiction is a learned behavior that must be understood within an environmental context (Murcheson et al., 2010). Therefore, when planning interventions, it is necessary to identify the cognitive, behavioral, affective, physiological, and environmental conditions associated with the initiation and maintenance of addictive behaviors. In addition, special attention is paid to understanding the cognitive processes that influence functioning. Cognitive and behavioral techniques can then be used based on how these internal and external processes interact to promote addictive behaviors.

Assessment

In CBT, the client's early life experiences, initial exposure to the addictive behavior, and family history of addiction are assessed to understand how the client's beliefs were developed (Wenzel et al., 2012). The client's cultural background also is an important consideration because cultural traditions communicate messages about the permissiveness and prevalence of the addictive behavior. Personality traits, such as impulsivity and co-occurring psychiatric disorders, are assessed to help explain the client's global level of functioning. Further, the client's social support and participation in meaningful life activities are evaluated. Gathering this information helps determine the client's basic and addiction-related beliefs and offers insight into how these beliefs influence the client's behavior in both the past and present.

Situational factors that should be examined during the assessment process include (a) characteristics of typical addiction-related stimuli, (b) outcome expectancies, (c) automatic thoughts, (d) permissive beliefs, (e) action-oriented beliefs, (f) self-confidence to change, and (g) urges and cravings to use (Wenzel et al., 2012). The degree to which the client's behavior has become automatic or unconscious also needs to be considered. Relatedly, J. S. Beck et al. (2005) suggested the client's current life problems and emotional responses to those problems be evaluated. This information provides context for the types of addiction-related stimuli and reinforcement (positive or negative) associated with the client's addictive behaviors.

It is important that the process of assessment reflect the educative and collaborative nature of CBT. Clients should be oriented to the CBT formulation of addictive behaviors early in counseling so they can take an active role in testing hypotheses related to their beliefs and subjective evaluations of events. Further, assessment is not confined to early treatment but should continue throughout counseling. As clients learn new cognitive skills and behaviors, they become increasingly aware of how their beliefs influence their behaviors. These new insights should be reflected in the case conceptualization.

Prevention

A number of concepts drawn from CBT with addictive behaviors can be applied to prevention practices. Considering the hypothesized role that environmental influences have

on addiction-related beliefs, it seems logical to design prevention efforts that seek to reduce the availability and exposure to addictive behaviors. For example, a community may wish to restrict the marketing of alcohol or nicotine products near schools and playgrounds. This kind of ecological intervention can prevent children from developing addiction-related beliefs. Addressing the formation of addiction-related beliefs among children is warranted. Zambanga, Ham, Van Tyne, and Pole (2011) surveyed 157 adolescent nondrinkers and found that many of these individuals held positive beliefs about alcohol use. These authors also found that greater positive beliefs were associated with greater intentions to drink in the future. Reducing early life exposure can potentially prevent the formation of these permissive and positive beliefs.

Prevention efforts can also be designed to provide individuals with positive coping skills that make engaging in addictive behaviors unnecessary. This can include training on how to effectively cope with unpleasant moods using healthier and more adaptive strategies. Skills training programs also can focus on enhancing an individual's refusal and assertiveness skills to prevent the initiation of use or keep moderate use from developing into a full-fledged problem. Brief alcohol screening and intervention for college students (BASICS; Dimeff, Bar, Kivlahan, & Marlatt, 1999) is an example of a prevention program based partly on CBT principles, that has demonstrated efficacy in reducing alcohol use and alcohol-related negative consequences among college student drinkers by addressing outcome expectancies, perceived norms, and skills deficits (Borran & Carey, 2000).

STRENGTHS AND WEAKNESSES OF THE THEORY

CBT possesses a number of strengths as a method of treating addictive behaviors. Substantial evidence exists supporting the use of CBT with addictions (Magill & Ray, 2009). Gossop, Stewart, Browne, and Manden (2002), for example, found that patients in a residential treatment program who used more cognitive coping skills had lower rates of relapse to heroin use. Strategies based on behavior therapy, such as the community reinforcement approach, also have demonstrated efficacy in reducing substance use (Miller et al., 2011). One reason this approach has shown promise is that CBT has also been found effective for conditions that often co-occur with addiction, such as depression and anxiety (Epp & Deaton, 2010). Because CBT theory and techniques are applicable to other mental health issues, treatment for co-occurring disorders and addictive behaviors can occur simultaneously. An additional strength of CBT is that it can be effectively combined with a variety of other therapeutic approaches, including motivational interviewing (MI; Moyers & Houck, 2011). Combining CBT with MI is advantageous because limited guidance is provided in CBT on how to treat clients who are ambivalent to change. The overall flexibility and utility of CBT enables the counselor to tailor treatment to the specific needs of the client.

Although evidence supports the use of CBT for a wide variety of psychological disorders, limited research exists testing CBT principles and techniques with diverse populations. Partridge et al. (2010) suggested that because of the core qualities of CBT (e.g., focus on collaboration and empowerment, emphasis on personalizing treatment based on the unique needs of the client), this approach can be effective across cultural groups; however, these authors also stressed the need for CBT research to assess how cultural differences influence treatment engagement and efficacy. Another weakness of CBT is the general lack of treatment fidelity among practitioners. Koeges (2012), for example, lamented that many

providers of CBT do not have the necessary training or expertise to competently use CBT techniques with their clients. Finally, because of the cognitive demands associated with learning new cognitive and behavioral skills, CBT may not be appropriate for clients with cognitive impairment (Carroll, 2011). Carroll (2011) recommended that CBT with clients who present with attention or memory problems be conducted at a slower pace to assess client understanding of key concepts and skills.

CASE STUDY RESPONSES

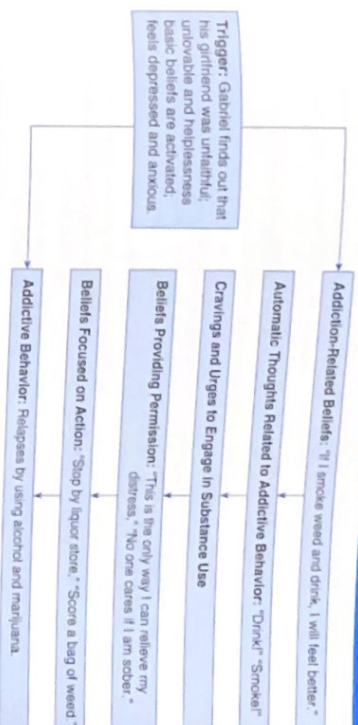
Gabriel grew up in a chaotic household having to protect his mother and sister from his abusive father, who suffered from chemical dependency. As a result of these experiences, Gabriel never developed a strong emotional bond with his father. Gabriel also felt shame related to an early sexual encounter with a male friend. These experiences shaped Gabriel's basic beliefs that he is unlovable and vulnerable. Gabriel's basic beliefs are consistent with his current unstable pattern of romantic relationships and conflicted sexual identity. More specifically, Gabriel likely interacts with the environment based on conditional assumptions such as *If I reveal my true self, I will be rejected and if I feel bad, I will fall apart*.

Through early experimentation with substances and observation of his chemically dependent family members, Gabriel developed the addiction-related belief that substance abuse can provide relief. It is likely that negative emotional states associated with his basic beliefs act as triggers for substance use. A hypothesized illustration of how Gabriel's beliefs influenced his most recent relapse is presented in Exhibit 13.6. Gabriel's helplessness and unlovable basic beliefs were activated after learning that his partner was unfaithful, creating an unpleasant emotional state. This internal cue activated his relief-oriented addictive beliefs and initiated a sequence that ultimately led to Gabriel's use. Continued use reinforces his basic beliefs and creates new activating events (e.g., feeling guilty about use, increased anxiety due to a negative consequence associated with use).

Gabriel's Native American lineage (Charter & Caetano, 2010) and his symptoms of anxiety and obsessive-compulsive disorder (A. T. Beck et al., 1993) also increase his risk of substance abuse. Gabriel possibly engages in substance use to cope with obsessive thoughts and fears activated by his basic beliefs that he is unlovable and vulnerable. On the other hand, a strength that Gabriel brings to treatment is his previous success abstaining from use. Remaining abstinent for 7 weeks can be used as evidence to counter Gabriel's helplessness beliefs. Further, Gabriel appears to have a strong social support network; his mother and sister can help him address the environmental triggers and reinforcement contingencies related to his substance abuse. They can also help by providing opportunities for Gabriel to participate in meaningful activities that promote change and recovery, such as playing sports with his niece.

My first task would be to establish a strong therapeutic alliance with Gabriel. During this process, I would pay particular attention to possible treatment-interfering beliefs that Gabriel might have based on his cultural background and his previous experiences in counseling. For example, Gabriel may have a collectivistic worldview consistent with his Native American heritage that may prevent him from focusing on his individual needs if he perceives that changes he makes in treatment will negatively impact other people in his life (Pantalone et al., 2010). Attending counseling also may activate negative beliefs that Gabriel

EXHIBIT 13.6 Cognitive Behavioral Formulation of Gabriel's Relapse



Based on Wenzel, A., Luse, B. S., Beck, A. T., & Friedman, Wheeler, D. G. [2012]. *Group cognitive therapy for addictions*. New York, NY: Guilford.

developed about treatment during his earlier hospitalizations. Exploring beliefs that can interfere with the process of counseling can help strengthen the relationship and develop appropriate goals for treatment.

I would also introduce Gabriel to the principles and goals of CBT so that he is able to play an active role in treatment. This includes educating Gabriel on how his anxiety and obsessive-compulsive symptoms are related to his substance abuse. The primary task of the initial phase of treatment would be to help Gabriel understand the various situational processes that maintain his substance abuse so that he can learn how to respond to these risk factors more effectively. Learning new strategies to cope with triggers would help Gabriel reduce his dependence on substances. In addition to skills training, we would discuss changes that he can make to his environment that limit exposure to triggers and increase positive reinforcement of treatment-oriented behaviors. As Gabriel takes control of his life and his behavior stabilizes, we can delve into Gabriel's basic beliefs and how they have shaped his life experiences. It may be fruitful to explore how Gabriel's beliefs about being unlovable and vulnerable have influenced how he views his sexual orientation and history of romantic relationships. Increasing Gabriel's awareness of these issues can potentially help reduce his anxiety.

A number of cognitive and behavioral interventions are applicable to this case. We can explore the use of problem-solving and coping skills to respond to internal and external cues identified by Gabriel. Teaching relaxation and distraction techniques can also help Gabriel cope more effectively with cravings. Altering Gabriel's environment can support his skills training; this includes teaching Gabriel's sister and mother how to reinforce treatment-oriented behavior. As we investigate the unhelpful types of thinking that contribute to

Gabriel's pattern of addiction, I would use guided discovery so that Gabriel can learn how to evaluate the validity and utility of his cognitions. To help generalize these skills to problems outside of counseling, Gabriel should engage in thought monitoring between sessions. These strategies will help Gabriel learn how to identify and challenge faulty styles of thinking. In the later stages of counseling, we can use the downward arrow technique to explore Gabriel's basic beliefs.

This case highlights a weakness of CBT in addressing Gabriel's motivation to change. Gabriel entered treatment at the request of his mother and sister; therefore, it is likely that he feels some ambivalence about changing his addictive behaviors. If Gabriel has reservations about participating in treatment, it is unlikely that he will complete homework and openly engage in the guided discovery process. Although readiness to change has been recognized as a critical treatment variable in CBT (A. T. Beck et al., 1993; Wenzel et al., 2012), limited guidance exists on how to use CBT techniques with ambivalent clients. Carroll (2011), Lisee (2014), and J. S. Beck et al. (2005) suggested that clients analyze the advantages and disadvantages of change versus continued use. This technique may unintentionally amplify the client's ambivalence. Miller and Rose (2015) examined the clinical outcomes of the cost-benefit analysis with clients and found that CBT actually decreased commitment to change.

One strength of CBT is that the techniques used to reduce Gabriel's substance dependence can also be used to address other problems in his life. As Gabriel explores the cognitions and activating stimuli associated with his substance use, it is very likely that other issues in his life, such as his sexual identity, will surface. The same can be said about his anxiety and obsessive-compulsive symptoms. A benefit of this integrated approach is that it can increase Gabriel's awareness of how all of these issues are interconnected. Further, because CBT techniques target the same processes relevant to all psychological distress (A. T. Beck et al., 1993), Gabriel may see improvements in other aspects of his life during treatment. Once he has acquired these new skills, Gabriel will be able to cope more effectively with life problems well after treatment has ended. On a related note, another strength of CBT is its comprehensiveness. Gabriel is not being taught to "think away" his problems. More accurately, during treatment Gabriel is empowered to make changes to his thinking, behavior, and environment that support improvements in his overall functioning and reduce his dependence on substances.

SUMMARY

During CBT, clients develop skills that empower them to change their addictive behaviors. They also make modifications to their environment to address reinforcement contingencies and addiction-related stimuli that can potentially derail the change process. Elements of successful CBT include establishing a strong therapeutic alliance.

Formulating an individualized and evolving case conceptualization and engaging the client in a collaborative learning process to identify and change unhelpful cognitions and behaviors. It is essential that these qualities of CBT be practiced by the treatment provider throughout counseling.

RESOURCES FOR CONTINUED LEARNING

Websites

The Albert Ellis Institute: <http://albertellis.org>
 Association for Behavioral and Cognitive Therapies: www.abct.org
 Beck Institute for Cognitive Behavior Therapy: www.beckinstitute.org
 National Institute of Mental Health: www.nimh.nih.gov

National Institute on Drug Abuse: www.drugabuse.gov
 Substance Abuse and Mental Health Services Administration (SAMHSA): www.samhsa.gov
 SAMHSA's National Registry of Evidence-Based Programs and Practices: www.nrepp.samhsa.gov

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