

Up-to-date information about leading practices
in substance use disorder treatment.



What Is CBT?

CBT

Cognitive-behavioral therapy (CBT) is a general term for a classification of therapeutic modalities. CBTs adopt the theory that patterns of cognition shape the emotional and behavioral consequences of that cognition; therefore, by changing maladaptive thinking and emotion, a patient can also change maladaptive behaviors.⁵

CBT proposes feelings affect thoughts, which can then affect behaviors. This idea is composed of three fundamental principles:

1. Cognitive activity affects emotions, which affect behavior.
2. Cognitive activity and emotions may be monitored and altered.
3. Desired behavior change may be achieved through cognitive and emotional change.⁵

Furthermore, the mental perception of an event is generally determined by the emotional state the person is experiencing. CBT changes the patient's distorted perceptions on problematic situations and replaces them with more realistic, objective ones. Through recalling their experiences (and the therapist helping to interpret meaning), patients lead themselves to resolving the cognitive errors and emotional responses and make room for behavior change.⁵

History of CBT

CBT is a combination of modalities. Its beginnings in the 1960s are attributed largely to Albert Ellis and Aaron Beck. Ellis had outlined Rational Emotive Therapy (now Rational Emotive Behavior Therapy), a cognitive- and emotion-based therapy, which provided the basic building blocks of CBT. Beck was one of the first figures in psychology's history to attribute cognition to psychological problems.² The previous focus of treating mental disorders was a therapeutic movement called behaviorism. This method treated psychological conditions by conditionally altering behavioral patterns. The combination of Ellis's and Beck's perspectives on treating cognitions in psychotherapy with the techniques of behaviorism served as the initiation for CBT as a treatment modality.¹¹

Applications of CBT for Substance Use Disorder

CBT is one of the most widely used treatment practices for substance use. Over 70% of all substance use disorder treatment facilities use this model¹⁵ with various therapeutic approaches. Therapeutic techniques are considered cognitive-behavioral if the underlying principles use reflection on cognitions to ultimately affect behavior. One approach assumes that patients are able to perceive their issues but cannot effectively respond to them. Patients use a form of personal objectivity to look at problematic situations and evaluate alternative methods to respond to them.⁵ This builds awareness toward circumstances that lead to emotional distress and the subsequent reliance on substances to relieve emotional discomfort.

Perspectives vary on the most effective applications of CBT for substance use disorder treatment but often consist of addressing associations and causal relationships between an individual's cognitions, emotions, behaviors, cravings, and substance use actions.³ CBT applied to substance use disorder reduces the intensity and frequency of the urges by changing dysfunctional beliefs and teaches the patient techniques for managing urges and the impulse to act.³ Because substance use disorder can result from continuous cycles of cognitions and behavioral responses, this modality implements specific cognitive and behavioral techniques to break the dysfunctional chain of maladaptive behavior.

Skills Development

An essential method of cognitive-behavioral therapy to facilitate recovery is to build skills to reduce substance use and maintain abstinence. One dimension of skill building, called *coping skills*, identifies effective mechanisms to handle problems in everyday life.⁷ The goal is to replace self-defeating actions with positive and effective coping skills in response to problematic situations. The challenging event may be a continuous part of the patient's life and learning to cope with the stressor may minimize personal distress and increase personal capability.⁵

Another set of cognitive-behavioral skills, called *self-management skills*, focuses on self-observation, self-monitoring, and self-regulation as a catalyst to change. The self-management perspective assumes that individuals can act as if there were two parts to them: a person who is controlled and responding to internal and external cues, and a controlling person who is able to observe these responses and regulate immediate reactions to the cues. Self-management skills teach individuals to observe personal behaviors and thoughts that may be problematic. Identification of the issues separates the individual from the situation and can therefore give him or her space to respond in a healthier way.²¹

Behavioral Techniques

The applications of skills from CBT are not limited to a treatment setting but are intended to be applied to an individual's everyday life. Two common behavioral techniques practiced in CBT are homework assignments and relapse prevention.¹²

Homework assignments in a psychotherapeutic setting are given as a way to encourage practice of newly learned skills between sessions. Bringing new skills and insights into routine activities and experiences may change the unhelpful behaviors that lead to further substance use. Homework encourages individuals to build on what they have learned, continuously generating greater awareness and the ability to change their problematic actions.²¹

Establishing greater personal awareness of problematic situations that lead to substance use is a necessary component in prevention.⁸ Relapse prevention is a set of strategies that helps patients assess and prepare for situations that could lead to addictive behavior.¹² CBT addresses relapse by modifying attitudes and personal core beliefs that might fuel cravings. Relapse prevention skills help patients recognize situations or states in which they are vulnerable to using substances, while also allowing the development of coping skills in order to handle them.³

Group Cognitive-Behavioral Therapy

CBT is often integrated within a comprehensive approach to many substance use disorder group therapies. Group cognitive-behavioral therapy (GCBT) presents an opportunity to expand the perspectives on specific dysfunctional thoughts and behaviors and discover constructive ideas to increase behavior change. A meta-analysis of GCBT was conducted to determine the therapy's efficacy for improving various psychological disorders. The analysis examined 30 studies (of adolescents and adults) that included empirically validated measures. Results indicated that clients who were treated with GCBT had significantly improved symptomatology from pretreatment to post-treatment. The effect was most significant for adolescents and those with depression.¹⁴

Two additional studies conducted on GCBT found superior results to a process-oriented group therapy. The participants in the GCBT utilized behavioral-therapy skills, such as homework assignments delivered one hour per week for 12 months. The results depicted at treatment completion that patient's drug use and drug-related problems significantly decreased.¹

Efficacy of CBT

CBT and its related skills and techniques are recognized as effective psychotherapeutic treatment modalities by the National Institute on Drug Abuse. CBT scores in the top 10% of treatment modalities for its efficacy in clinical trials and the quality of methodologies.¹³

A 2009 review of 53 research studies analyzed CBT across a multitude of measures for effectiveness. The review included studies in and out of the United States, group and individual interventions, studies that used participants with co-occurring diagnoses, and interventions that used a combination of different CBT treatments. Overall, CBT demonstrated a small but statistically significant effect over other substance use disorder treatments. The analysis also found that when compared to a no-treatment condition, CBT had a large effect on outcomes, and CBT combined with additional psychosocial treatments had a greater effect than CBT alone.¹⁰

The impact of CBT applications on outcomes can vary, and it may be more beneficial for specific populations. Research on substance use disorder patients shows that CBT has the best outcomes when combined with other treatment modalities,⁶ when treating depression and other co-occurring disorders,⁵ and as a slow, but persistent effect.^{9, 16}

When combined with other evidence-based treatments, CBT shows positive results in treating substance use disorder. In a 2013 meta-analysis of psychosocial interventions for substance use disorders, CBT had the most significant outcomes when combined with other treatment modalities. CBT plus contingency management interventions (offering incentives for behavioral goals) generated the greatest effect size on the number of days abstinent and severity of addiction.⁶

Literature states that CBT has high empirical support for effectiveness in treating patients experiencing a co-occurring psychiatric disorder alongside substance use disorder.¹⁷ A study from 2011 examined the effect a CBT intervention would have on group therapy sessions for patients dually diagnosed with depression and substance use disorder. The study measured the difference in abstinence and depression severity between residential substance use disorder treatment as usual and residential substance use disorder treatment plus a CBT called *Building Recovery by Improving Goals, Habits, and Thoughts (BRIGHT)*. BRIGHT was broken up into modules that lasted 8 weeks and consisted of 16, 2-hour group sessions. Results showed that patient depression scores and frequency and severity of drinking were significantly lower with the BRIGHT intervention.¹⁷

Research indicates that skills learned through cognitive-behavioral approaches persist after the completion of treatment. Studies comparing family therapy and cognitive-behavioral interventions found CBT to provide delayed effects. Both modalities showed effective treatment results; however, the CBT intervention group continued to increase in effect size the reduction of drug use and severity ratings up to 19 months post-treatment.^{9, 16}

Furthermore, a study conducted in the early 1990s tested the results of a CBT approach integrating relapse prevention. Participants had a diagnosis of cocaine dependence and were treated individually through manual-guided sessions for 12 weeks. Follow-up measures of frequency of cocaine use and a composite score of intensity and problems associated with cocaine use were conducted at 1, 3, 6, and 12 months post-treatment. The effects of the intervention were not significant in the 1-

and 3-month follow-ups. However, cocaine use and intensity decreased by the 6-month follow-up and were most significant at the 12-month follow-up. These findings suggest that there may be delayed positive effects of cognitive-behavioral relapse prevention.⁴

ADDITIONAL RESOURCES FROM THE HAZELDEN BETTY FORD FOUNDATION

As part of the Hazelden *Co-occurring Disorders Program*, *Cognitive Behavioral Therapy for People with Co-occurring Disorders* is primarily for use in treatment settings that helps patients address co-occurring substance use and mental health disorders. This manualized program was developed by faculty from the Geisel School of Medicine at Dartmouth in partnership with Hazelden Publishing to provide a structured approach in providing CBT knowledge and skills that can be practiced during treatment and once formal treatment ends. Visit Hazelden.org/BehavioralHealth to learn more about this program.

References

1. Azrin, N. H., Donohue, B., Besalel, V. A., Kogan, E. S., & Acierno, R. (1994a). Youth drug abuse treatment: A controlled outcome study. *Journal of Child and Adolescent Substance Abuse*, 3, 1-16.
2. Beck, A. T., Rush, A. J., Shaw, B. F., & Emory, G. (1979). *Cognitive therapy of depression*. New York: Guilford.
3. Beck, A. T., Wright, F. D., Newman, C. F., & Liese, B. S. (1993). Cognitive therapy of substance abuse: Theoretical rationale. *NIDA Research Monograph*, 137, 123-123.
4. Carroll, K. M., Rounsaville, B. J., Nich, C., Gordon, L. T., Wirtz, P. W., & Gawin, F. (1994). One-year follow-up of psychotherapy and pharmacotherapy for cocaine dependence. *Archives of General Psychiatry*, 51, 989-997.
5. Dobson, K. S. (1988). *Handbook of cognitive-behavioral therapies* (2nd ed.). New York, NY: Guilford Press.
6. Dutra, L., Stathopoulou, G., Basden, S. L., Leyro, T. M., Powers, M. B., Otto, M. W. (2008). A meta-analytic review of psychosocial interventions for substance use disorders. *American Journal of Psychiatry*, 165, 179-187.
7. D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology*, 78, 107-126.
8. Irvin, J. E., Bowers, C. A., Dunn, M. E., & Wang, M. C. (1999). Efficacy of relapse prevention: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 67(4), 563-570.
9. Liddle, H. A., Dakof, G. A., Parker, K., Diamond, G. S., Barrett, K., & Tejeda, M. (2001). Multidimensional family therapy for adolescent drug abuse: Results of a randomized clinical trial. *The American Journal of Drug and Alcohol Abuse*, 27(4), 651-688.
10. Magill, M., Ray, L. A. (2009). Cognitive-behavioral treatment with adult alcohol and illicit drug users: A meta-analysis of randomized controlled trials. *Journal of Studies on Alcohol and Drugs*, 70, 516-527.
11. Mahoney, M. J. (1988). The cognitive sciences and psychotherapy: Patterns in a developing relationship. In K. S. Dobson (Ed.), *The Handbook of Cognitive-Behavioral Therapies* (pp. 357-386). New York, NY: Guilford Press.
12. Marlatt, G. A., & Gordon, J. R. (1985). *Relapse prevention*. New York, NY: Guilford Press.
13. Miller, W. R., & Wilbourne, R. L. (2002). Mesa grande: A methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction*, 97, 265-277.
14. Petrocellie, J. V. (2002). Effectiveness of group cognitive-behavioral therapy for general symptomatology: A meta-analysis. *Journal for Specialists in Group Work*, 27(1), 92-115.
15. Substance Abuse and Mental Health Services Administration, National Survey of Substance Abuse Treatment Services (N-SSATS): 2013. Data on Substance Abuse Treatment Facilities. BHSIS Series S-73, HHS Publication No. (SMA) 53. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014.
16. Waldron, H. B., & Kaminer, Y. (2004). On the learning curve: The emerging evidence supporting cognitive-behavioral therapies for adolescent substance abuse. *Addiction*, 99(2), 93-105.
17. Watkins, K. E., Hunter, S. B., Hepner, K. A., Paddock, S. M., de la Cruz, E., Zhou, A. J., & Gilmore, J. (2011). An effectiveness trial of group cognitive behavioral therapy for patients with persistent depressive symptoms on substance abuse treatment. *Archives of General Psychiatry*, 68(6), 577-584.

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Kiki Schmit
Research Assistant

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