Treatment Considerations for Youth with SED, Mental Illnesses and Substance Use

Presented by: Lance Parks

Retrieved from: Substance Abuse and Mental Health Services Administration (SAMHSA): *Treatment Considerations for Youth and Young Adults with Serious Emotional Disturbances/Serious Mental Illnesses and Co-occurringSubstance Use*. Publication No. PEP20-06-02-001. Rockville, MD: National Mental Health and Substance Use Policy Laboratory, Substance Abuse and Mental Health Services Administration, 2021.

Part I

Evidence-Based Resource Guide Series Overview

The substance Abuse and Mental Health Services Administration (SAMHSA), and specifically, its National Mental Health and Substance Use Policy Laboratory (Policy Laboratory), is pleased to fulfill the charge of the 21st Century Cures Act to disseminate information on evidence-based practices and services delivery models to prevent substance misuse and help individuals with substance use disorders (SUD), serious mental illnesses (SMI), and serious emotional disturbances (SED) get the treatment and support they need.

Treatment and recovery for SUD, SMI, and SED can vary based on geographic, socio-economic, cultural, gender, race, ethnicity, and age-related factors. This can complicate evaluating the effectiveness of services, treatments, and supports. Despite these variations, however, there is substantial evidence to inform the types of resources that can help reduce substance use, lessen symptoms of mental illness, and improve quality of life.

The Evidence-Based Resource Guide Series is a comprehensive set of modules with resources to improve health outcomes for people at risk for, experiencing, or recovering

from mental and/or substance use disorders. It is designed for clinicians, administrators, community leaders, and others considering an intervention for their organization, community, client, or loved one. A priority topic for SAMHSA is encouraging treatment practices that improve outcomes for youth and young adults with SED/SMI who also have or are at risk for co-occurring substance misuse or SUD. This guide reviews the literature and science, examines evidence-based practices, determines key components of those treatment practices, identifies challenges and strategies for implementation, and discusses evaluation of implemented evidence-based practices.

Expert panels of federal, state, and non-governmental participants provide input for each guide in this series. The panels include accomplished scientists, researchers, service providers, community administrators, federal and state policy makers, and people with lived experience. Members provide input based on their knowledge of healthcare systems, implementation strategies, evidence-based practices, provision of services, and policies that foster change.

Research shows that implementing evidence-based practices requires a comprehensive, multi-pronged approach. This guide is one piece of an overall approach to implement and sustain change. Readers are encouraged to visit the SAMHSA website for additional tools and technical assistance opportunities.

A NOTE ON TERMINOLOGY

It is important to understand that SED and SMI are not diagnostic categories; they are broad encompassing terms used in public health to refer to the range of various diagnosed mental illnesses in youth and young adults, respectively, which significantly impair functioning. Disorders such as major depression, bipolar, and post-traumatic stress disorder fall under the larger umbrella of SED/ SMI when they significantly impair functioning. While substance use disorders are not considered part of the SED/SMI categories, all these disorders, are typically formally diagnosed according to DSM-5 criterion.

Content of the Guide

This guide contains a foreword and five chapters. The chapters stand alone and do not need to be read in order. Each chapter is designed to be brief and accessible to healthcare clinicians, healthcare system administrators, community members, policy makers, and others working to meet the needs of individuals at risk for, experiencing, or recovering from mental and/or substance use disorders. The goal of this guide is to review the literature on treating substance misuse and SUD in youth and young adults with SED/SMI, distill the research into recommendations for practice, and provide examples of how clinicians use these treatment practices in their programs.

FW **Evidence-Based Resource Guide Series Overview**

Introduction to the series.

---

1 **Issue Brief**

Overview of current approaches and challenges to addressing SED/SMI and co-occurring substance misuse or SUD among youth and young adults.

---

2 **What Research Tells Us**

Current evidence on effectiveness of the following treatment practices included in the guide to address SED/SMI and co- occurring substance misuse or SUD in youth and young adults:

- Cognitive behavioral therapy (CBT)
- Multidimensional family therapy (MDFT)

- Pharmacotherapy

---

3 **Guidance for Selecting and ImplementingEvidence-based Practices**

Practical information to consider when selecting and implementing treatment practices and programs to address SED/SMI and co-occurring substance misuse or SUD in youthand young adults.

---

4 **Examples of Treatment Programs**

Descriptions of programs that use treatment practices from Chapter 2 to address SED/SMI and co-occurring substancemisuse or SUD in youth and young adults.

---

5 **Resources for Evaluation and Quality Improvement**

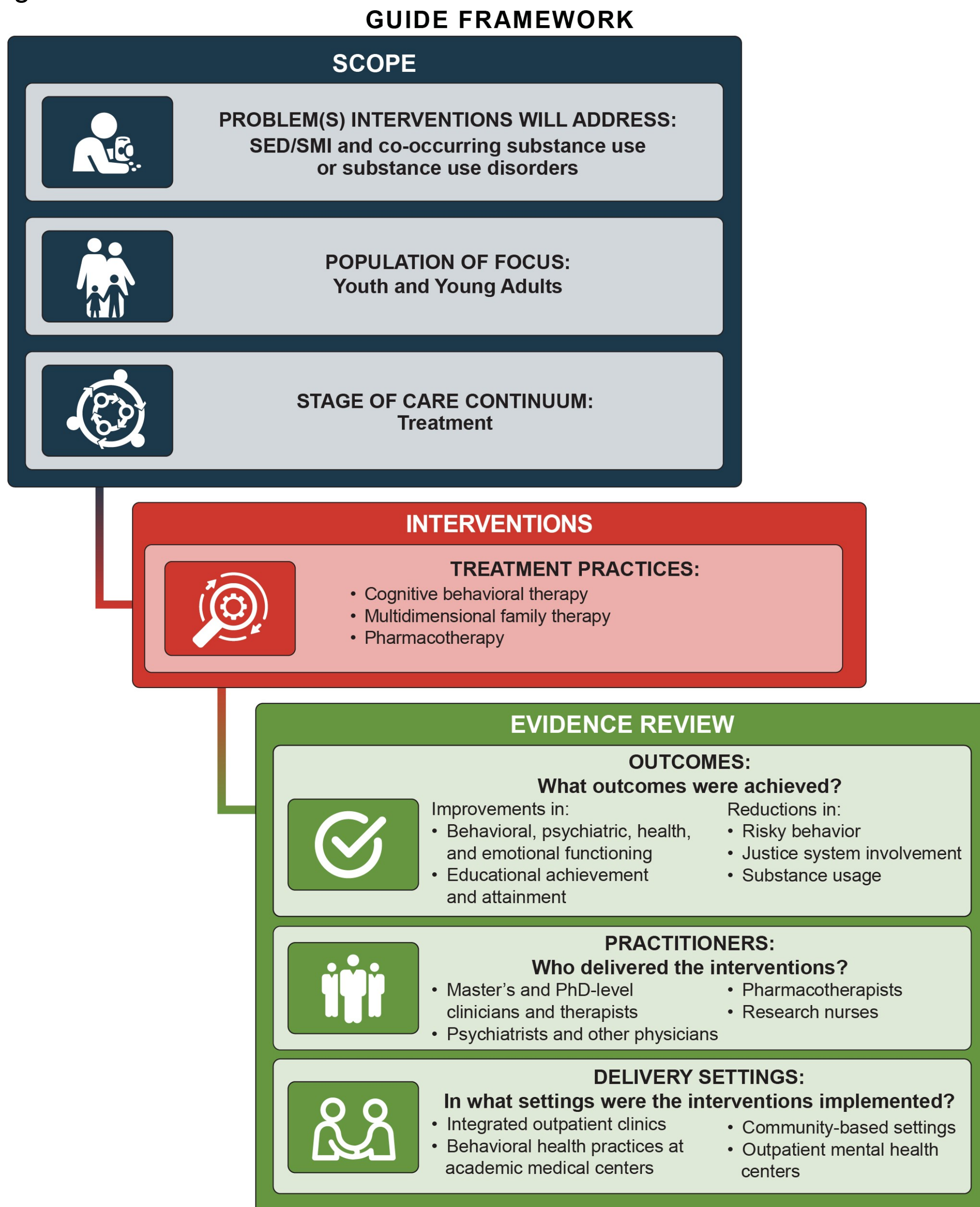
Guidance and resources for implementing best practices, monitoring outcomes, and improving quality.

FOCUS OF THE GUIDE

Treatment services for youth andyoung adults living with SED/SMIwho may have or be at risk for co-occurring SUD have improvedin recent years. However, an opportunity exists to broaden the availability and utilization of these services. For this reason, knowledgeand implementation of interventions to improve engagement and treatment in clinical settings are essential.

This guide presents three evidence-based practices that engage and improve outcomes for youth and young adults with co-occurring SED/SMI and substance misuse or SUD. These approaches will assist clinicians, behavioral health organizations, primary care providers,schools, insurers, transformation experts, and policy makers to understand, select, and implement evidence-based interventions that support youth and young adult mentalhealth. These include psychosocial interventions, family behavioral therapy, medication, proactive outreach, and use of web-based and other technologies.

The framework below provides an overview of the treatment practices and the outcomes included in the guide. The guide addresses co-occurring SED/SMI and substance misuse or SUD in youth and young adults and treatment practices that have been evaluated for this population. This guide will not specifically address the needs of or all relevant treatment practices for individuals with all disorders that fall under the SED/SMI categories, including schizophrenia and other mental disorders. The review of these interventions in Chapter 2 includes specific outcomes, clinician types, and delivery settings.



Chapter 1: Issue Brief

This chapter presents an overview of the current understanding of common mental illnesses co-occurring with substance misuse or substance use disorders (SUD), with a particular emphasis on youth with SED and young adults with SMI.

Healthy and unhealthy mental, emotional, and behavioral development are influenced by youth and young adults' social and physical environments. These influences include physical, social, and other experiences, an individual's sleep, nutrition, and physical activity, peer behavior, parental behavior, and societal characteristics (e.g., poverty, law- and policy-driven factors, systemic racism, and discrimination).[1] Many physical, developmental, social, and emotional changes occur during the teen years and transition into adulthood. Mental health and substance misuse issues commonly first emerge at this time.[2]

Family, friends, or clinicians may confuse mental health and substance misuse symptoms for the angst, social stressors, and strong emotions that commonly occur with teens. Additionally, multiple clinical, administrative, financial, and policy barriers often lead to under diagnosis and inadequate treatment of mental health and substance use issues during this life stage.[2]

Among youth and young adults in need of mental health services, co-occurring substance misuse is highly prevalent. This is particularly evident in special populations like youth in juvenile detention, youth living in rural communities, and youth in residential or foster care.[3-6]

Many physical, developmental, social, and emotional changes occur during the teen years and transition into adulthood. Mental health and substance misuse issues commonly first emerge at this time.

The timing of mental illness onset with SUD varies. For some youth and young adults, the SED/SMI may precede the SUD; for other individuals, the reverse can occur. These disorders may also develop during the same period. SED/SMI is associated with an increase risk of SUD and substance misuse, and SUD can contribute to the development of mental illness.

Risk and Protective Factors

Protective factors are characteristics associated with a higher likelihood of positive outcomes or those that reduce a risk factor's impact. Protective factors may be seen as positive countering events or actions.

- **Individual-level protective factors** might include positive self-image, self-control, or social competence.

Risk factors are characteristics at the biological, psychological, family, community, or cultural levels that precede and are associated with a higher likelihood of negative outcomes.

- **Individual-level risk factors** may include a person's genetic compositionor prenatal exposure to alcohol.
-

Some risk and protective factors, such as income level, peer group, trauma exposure, and employment status, may change over time,while others can remain constant.[7]

POPULATIONS AND DEFINITIONS

POPULATION OF FOCUS

Youth: individuals aged 12 to 17.

Young Adults: individuals aged 18 to 25.

TOPICS OF THE GUIDE

Serious emotional disturbance (SED) refers to a diagnosable mental, behavioral, or emotional disorder experienced by people under the age of 18 in the past year, which resulted in functional impairment that substantially interferes with or limits the child's role or functioning in family, school, or community activities.

Serious mental illness (SMI) may be experienced by someone 18 or over having (within the past year) a diagnosable mental, behavioral, or emotional disorder that causes serious functional impairment and substantially interferes with or limits one or more major life activities.

Substance use refers to the underage or illegal use of alcohol, drugs, tobacco, and nicotine.

Substance use disorder (SUD) occurs when the recurrent use of alcohol or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.

Co-occurring disorder refers to the coexistence of both a substance use and mental disorder.

The symptom, severity, age of onset, and other characteristics differ based on an individual's risk, protective factors, and other influences, as described above. Common risk factors for development of mental illnesses and substance use disorders in youth and young adults include abuse and neglect, death of a loved one, and community violence, among others, which can lead to serious mental and physical health concerns.

While most youth and young adults return to normal functioning after stressful events, others may show symptoms related to trauma.[8-9] **Trauma** refers to experiences that cause intense physical and psychological stress reactions.[10] More than 66 percent of youth in the United States experience a traumatic event or circumstances by 16 years of age[8] and many children experience chronic trauma.[9]

Adverse childhood experiences (ACEs), or potentially traumatic events experienced before the age of 18, can have long-term impacts on youth who experience them.[11] ACEs include **growing up in a household with substance misuse and/or mental health problems; instability due to parental separation; and household members being in jail or prison**.[11] Youth who experience ACEs, especially those who experience multiple ACEs, are more likely to suffer harmful long-term consequences, such as major depressive disorder, SUD, or physical conditions like obesity and high blood pressure when not met with an understanding and trauma-appropriate response from adults.[12]

In particular, youth and young adults with SED/SMI vary in symptom type, severity, and history of trauma.[13] Clinicians differ in their approach to identifying and treating individuals with co-occurring disorders, because the factors that lead individuals to seek care are complex and vary by individual.

Screening and comprehensive assessments are essential to identify youth and young adults at risk for or struggling with SUD, mental illnesses, or co-occurring conditions. Health service providers, juvenile justice workers, educators, and other professionals who work with youth and young adults should screen and, as appropriate, refer for further assessment.

Universal screening for mental and substance use disorders should be a standard part of any primary care practice. Additionally, providers that primarily treat youth and young adults with SED or SMI should be equipped to screen and assess for co-occurring substance misuse and SUD. When first working with a potential client, primary care, mental health, and substance use providers can conduct an intake screening tools such as the following:

Screening Tools:

- Generalized Anxiety Disorder (GAD-7)
- Major Depressive Disorder Module of the Patient Health Questionnaire (PHQ-9)
- PHQ-9 Adolescent
- CRAFFT
- **UNCOPE**

Comprehensive Assessments:

- Substance Abuse Subtle Screening Inventory (SASSI)
- Comprehensive Adolescent Severity Inventory
- (CASI)
- Diagnostic Interview Schedule for Children (DISC)
- Drug Use Screening Inventory (revised)
- (DUSI-R)
- Global Appraisal of Individual Needs (GAIN)

SAMHSA's Treatment Improvement Protocol 31: Screening and Assessing Adolescents for Substance Use Disorders provides detailed information on screening for substance use and co-occurring conditions.

For maximum benefit, each individual's treatment plan must be specific to their circumstances and person- centered.[2] For example, multiple individuals with the

same disorder profile may require different treatment depending on contributing factors, order of onset, and relative severity of their symptoms—all of which can complicate treatment.

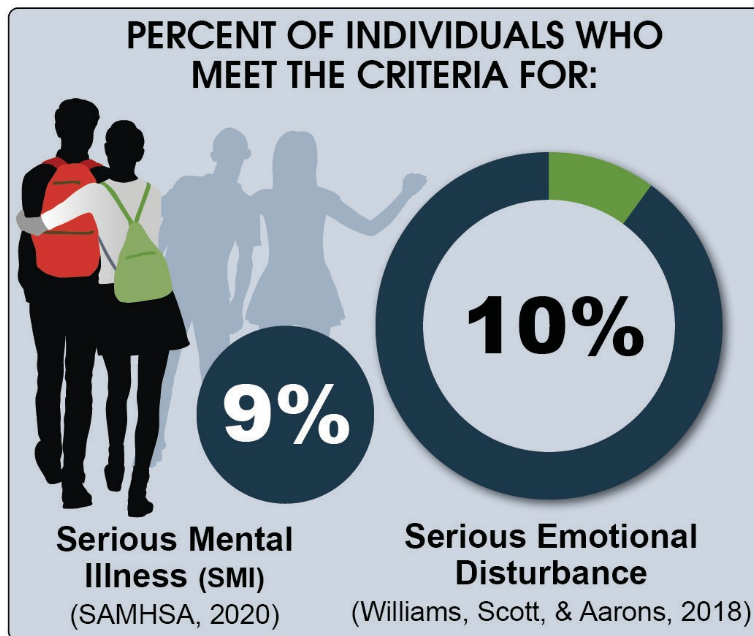
Youth and young adults with co-occurring disorders have unique challenges, risks, and childhood experiences.

Few programs exist that address their specific needs. Without evidence-based strategies, services, and programs to identify and treat co-occurring SUD in youth and young adults with SED or SMI, they may face an increased risk of serious medical, legal, and interpersonal problems.

Prevalence and Other Data

It is common to experiment with alcohol and illicit substances during the teen years. By late adolescence, more than 75 percent of youth in the United States have consumed alcohol, and over 40 percent have used an illicit substance at least once.[14] More critically,

11 percent of youth (ages 13 and 14) experience SUD and 15 to 16 percent of older youth (ages 17 and 18) have behavior that meets the criteria for alcohol or drug misuse.[14]



In addition, many youth and young adults experience symptoms of a mental illness that may not be disabling enough to qualify as a full SED or SMI.[15-16] For example, one national survey notes high rates of anxiety disorders that do not necessarily meet criteria for a SED, especially among females, older youth, and ethnic minorities.[17]

Approximately 2 percent of individuals aged 12 to 17 met the criteria for co-occurring major depressive

episode and SUD.[16] Among young adults, three percent met the criteria for co-occurring SMI and SUD. As with youth, young adults with SMI reported using illicit substances at higher rates than those without SMI.[16] Youth and young adults have increased risk of SUD associated with some disorders, including, but not limited to, anxiety disorders,[18-19] depressive disorders,[18,20] and bipolar disorder.[21] For example, the rate of illicit drug use in the prior year was higher among youth with a recent history of a major depressive episode (33 percent) than those without (14 percent). Additionally, ADHD was reported for 38 percent of both girls and boys.[2]

Impact of the Problem

Individuals with co-occurring disorders experience greater functional impairment, with greater negative outcomes, than people diagnosed with a single disorder.[23] Moreover, youth and young adults specifically diagnosed with co- occurring SED/SMI and SUD are at increased risk of suicidal ideation and attempts,[24] failure to graduate high school on time,[25] and early pregnancy[26] compared to others without a disorder or those with one.

Data on the prevalence of co-occurring disorders in the juvenile justice system is limited. However, estimates suggest that youth already in contact with the system have much higher prevalence of co-occurring SED and SUD than youth overall.[27] Roughly 62 percent of individuals

in the juvenile justice system meet criteria for at least one mental disorder. Among these individuals, 61 percent had co-occurring SUD.[28]

Similarly, youth and young adults who experience homelessness have a much higher prevalence of mental disorders (e.g., anxiety disorder, panic disorder, major depression, bipolar disorder, schizophrenia, and post- traumatic stress disorder) and SUD than youth and young adults who have stable homes.[29]

Barriers and Facilitators to Treatment

According to the 2019 National Survey on Drug Use and Health, 17 percent of individuals aged 12 to 17 access mental health services in specialty settings and 18 percent in non-specialty settings.[16] Specialty settings include inpatient, residential, and outpatient mental health settings. Non-specialty settings include outpatient primary health care, educational, child welfare, and juvenile justice settings. Of those youth who received mental health services in non-specialty settings, 85 percent received the services in a school setting.[16]

When youth and young adults with SED/SMI and co-occurring substance misuse or SUD receive treatment, they may access care in either the mental health system or the substance use treatment system.[2] They may move from one system to the other or access different levels of care or different clinicians throughout the course or treatment. The piecemeal approach to treatment often results in inconsistent delivery of care and less than optimal outcomes.

Youth and young adults with co-occurring SED/SMI and SUD require treatment that addresses the whole person. Such person-centered services may include psychosocial interventions, family behavioral therapy, medication, proactive outreach, and use of specialized applications that can assist or provide an intervention and track symptoms.

Integrated or combined treatment- services that treat both SED/SMI and substance misuse or SUD --- lead to better long-term outcomes.
Youth and young adults experiencing co-occurring disorders commonly face difficulties accessing integrated services designed to assess and treat their needs. This is due to:

- **Lack of access to health insurance or adequate insurance benefits**
- **Fragmented or uncoordinated care, especially for youth and young adults in foster, juvenile justice, or residential settings, or those experiencing homelessness.**
- **Limited cross training and education for mental health and substance use of professionals.**
- Separate and geographically distinct SED/SMI and SUD treatment systems**.**
- Different and separate financing and reimbursement policies for each treatment option.

These challenges persist across the United States and are particularly prominent in settings treating vulnerable populations. However, progress has been made. Examples include:

- Increased integration of effective and evidence-based behavioral health services in primary and school settings, where youth access treatment and clinical services most often.
- Greater access to telehealth services.
- Expanded capacity to identify and treat co-occurring through more educational.

As research has expanded what we know about SE, SMI and co-occurring substance misuse and SUD, implementation of systematic and integrated approaches for this population are critical to increase the availability and access of services.

References:

National Academies of Sciences, Engineering, and Medicine. (2019). *Fostering Healthy Mental,Emotional, and Behavioral Development in Children and Youth: A National Agenda.* https://doi.org/10.17226/25201

Hawkins, E. H. (2009). A tale of two systems: co-occurring mental health and substance abuse disorders treatment for adolescents. *Annual Review of Psychology, 60*, 197–227. https://doi.org/10.1146/annurev.psych.60.110707.163456

Abram, K. M., Teplin, L. A., McClelland, G. M., & Dulcan, M. K. (2003). Comorbid psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry, 60*(11), 1097–1108. https://dx.doi.org/10.1001%2Farchpsyc.60.11.1097

Hser, Y. I., Grella, C. E., Hubbard, R. L., Hsieh, S. C., Fletcher, B. W., Brown, B. S., & Anglin, M. D. (2001). An evaluation of drug treatments for adolescents in 4 U.S. cities. *Archives of General Psychiatry, 58*(7), 689–695. https://doi.org/10.1001/ archpsyc.58.7.689

Jozefiak, T., Kayed, N. S., Rimehaug, T., Wormdal, A. K., Brubakk, A. M., & Wichstrøm, L. (2016). Prevalence and comorbidity of mental disorders among adolescents living in residential youth care.*European Child Adolescent Psychiatry, 25*(1), 33–47. https://doi.org/10.1007/s00787-015-0700-x

Anderson, R. L., & Gittler, J. (2005). Unmet need for community-based mental health and substance use treatment among rural adolescents. *CommunityMental Health Journal, 41*(1), 35–49. https://doi. org/10.1007/s10597-005-2598-0

Substance Abuse and Mental Health Services Administration. (2019). *Risk and protective factors*. https://www.samhsa.gov/sites/default/ files/20190718-samhsa-risk-protective-factors.pdf

Bartlett, J. D., Wilson, A., Moore, K. A., & Redd, Z. (2016, April 19). *5 ways trauma-informed care supports children’s development*. Child Trends. https://

www.childtrends.org/child-trends-5/5-ways-trauma- informed-care-supports-childrens-development

APA Presidential Task Force on PTSD and Trauma in Children and Adolescents. (n.d.) *Children and trauma: Tips for mental health professionals*. https:// www.apa.org/pi/families/resources/tips.pdf

Merikangas, K. R., He, J., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., Benjet, C., Georgiades, K., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication– Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry, 49*(10), 980–989. https://dx.doi. org/10.1016%2Fj.jaac.2010.05.017

Deas, D. (2006). Adolescent substance abuse and psychiatric comorbidities. *Journal of Clinical Psychiatry, 67*(Suppl 7), 18–23. https://pubmed.ncbi.nlm.nih.gov/16961420/

Wolitzky-Taylor, K., Bobova, L., Zinbarg, R. E., Mineka, S., & Craske, M. G. (2012). Longitudinal investigation of the impact of anxiety and mood disorders in adolescence on subsequent substance use disorder onset and vice versa. *Addictive Behaviors, 37*(8), 982–985. https://doi.org/10.1016/j.addbeh.2012.03.026

Wilens, T. E., Biederman, J., Kwon, A., Ditterline, J., Forkner, P., Moore, H., Swezey, A., Snyder, L., Henin, A., Wozniak, J., & Faraone, S. V. (2004). Risk of substance use disorders in adolescents with bipolar disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 43*(11), 1380–1386. https://doi.org/10.1097/01.chi.0000140454.89323.99

Kaminer, Y., Connor, D. F., & Curry, J. F. (2007). Comorbid adolescent substance use and major depressive disorders: A review. *Psychiatry (Edgmont), 4*(12), 32–43. https://www.ncbi.nlm.nih.gov/pubmed/20436762

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., Liddle, H., Titus, J. C., Kaminer, Y., Webb, C., Hamilton, N., & Funk,

R. (2004). The Cannabis Youth Treatment (CYT) Study: Main findings from two randomized trials. *Journal of Substance Abuse Treatment, 27*(3), 197–213. https://doi.org/10.1016/j.jsat.2003.09.005

Vida, R., Brownlie, E., Beitchman, J. H., Adlaf, E. M., Atkinson, L., Escobar, M., Johnson, C. J., Jiang, H., Koyama, E., & Bender, D. (2009). Emerging adult outcomes of adolescent psychiatric and substance use disorders. *Addictive Behaviors, 34*(10), 800–805. https://doi.org/10.1016/j. addbeh.2009.03.035

Chapter 2: What Research Tells Us

This chapter provides an overview of three treatment practices for co-occurring serious emotional illness (SMI) and substance misuse or substance use disorders (SUD) in youth and young adults:

- Cognitive Behavioral Therapy (CBT)
- Multidimensional Family Therapy (MDFT)
- Pharmacotherapy

Treatment Practices

Cognitive Behavioral Therapy (CBT): A form of psychotherapy that combines cognitive therapy with behavior therapy by identifying maladaptive patterns of thinking, emotional response, or behavior and substituting them with effective approaches. CBT is used in the treatment of various mental and emotional disorders including depression, anxiety, eating disorders, and SUD. Cognitive therapy and CBT are often used interchangeably.

Multidimensional Family Therapy (MDFT). A manualized, family-based approach to treatment of youth substance misuse and SUD, as well as co-occurring mental health and behavioral problems.

Pharmacotherapy: Medications approved by the Food and Drug Administration (FDA) to treat a youth or young adult's SED.

Co-occurring conditions affect an individual's physical andmental health. It is also a larger public health problem thatcan have negative impacts on families and communities.

Literature around these treatment practices is often inconsistent, making identification of the most effective treatment methods challenging. Through a literature review and consensus from technical experts (see Appendix), authors identified three practices used to treat co-occurring SED/SMI and SUD in youth and young adults. Based on

a comprehensive review of the available evidence, each selected treatment practice received a rating.

Screening for SED/SMI and SUD using a standardized tool helps providers identify youth and young adults who may be at risk for co- occurring disorders and implement appropriate care plans. A comprehensive assessment and history of a client's mental function, substance use behavior, trauma, health history, and home life typically follows a positive screen. This should be completed using a structured or semi-structured approach and the results can assist providers in determining appropriate next steps and tailoring specific treatments to meet the client's needs.

Treatment Practice Selection

To be considered for inclusion in this guide, eligible treatment practices had to meet the following criteria:

- Be clearly defined and replicable.
- Address target outcomes detailed in the
- *Foreword* of this guide.
- Be currently in use.
- Have evidence of effectiveness.
- Have accessible resources for effective implementation.

Evidence Review and Rating

Authors completed a comprehensive review of published research for each selected treatment practice to determine its strength as an evidence-based practice. Eligible research studies had to:

- Employ a randomized or quasi-experimental design or

- Be a single sample pre-post design or an epidemiological study with a strong counterfactual (i.e., a study that analyzes what would have happened in the absence of the intervention).

Descriptive and implementation studies and meta-analyses were not included in the review but were documented to provide context and identify implementation supports for the treatment practices.

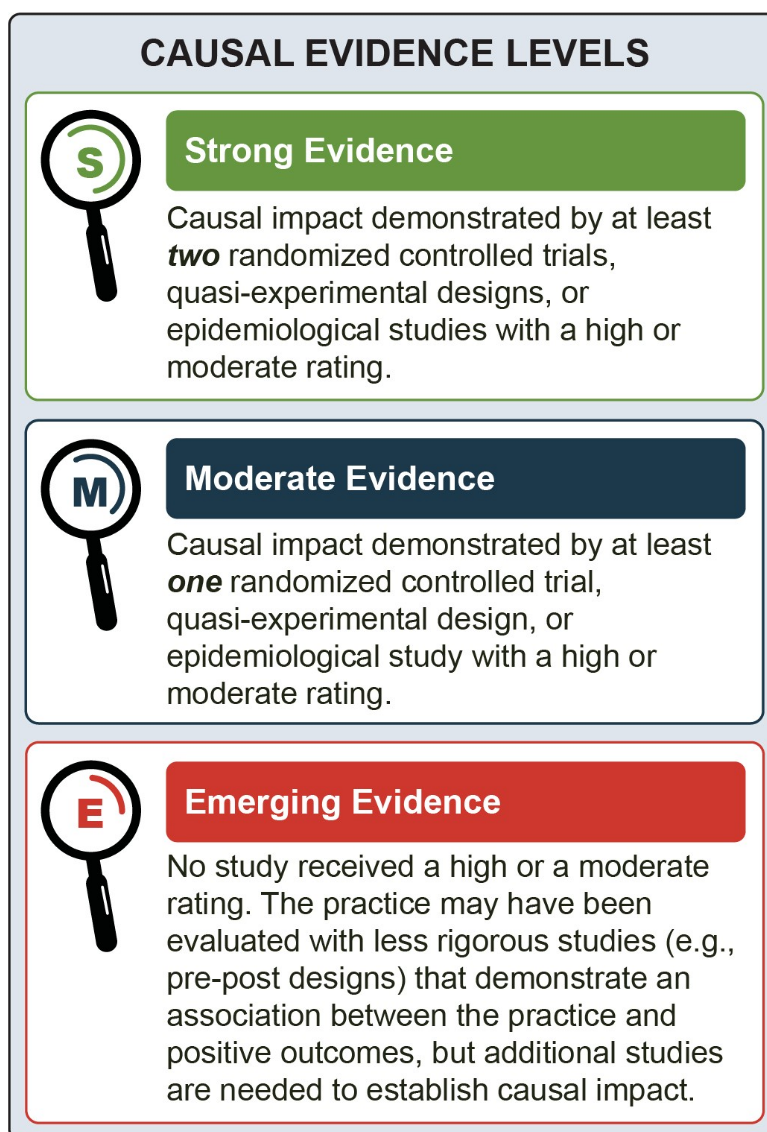
Causal Impact: Evidence demonstrating that an intervention causes, or is responsible for, the outcome measured in the study's sample population.

Each eligible study was reviewed for evidence of improvements in psychiatric symptomatology and reductions in SUD or substance use behavior. In cases where studies did not specifically identify SED or SMI as the population of interest, results are noted as relevant to the treatment of co-occurring conditions generally. In addition, trained reviewers checked each study to ensure rigorous methodology, asking questions such as:

- Are experimental and comparison groups demographically equivalent, with the only difference being that participants in the experimental group received the intervention and those in the comparison group received treatment as usual or with no or minimal intervention?
- Was baseline equivalence established between the treatment and comparison groups on outcome measures?
- Were missing data addressed appropriately?
- Were outcome measures reliable, valid, and collected consistently from all participants?

Using these criteria, each study's causal impact was assessed and given a rating of low, moderate, or high. Only randomized controlled trials, quasi-experimental designs, and epidemiological studies with a strong comparison wereeligible to receive a high or moderate rating.

After all studies for a treatment practice were assessed and rated, the treatment practice was placed into one ofthree categories based on its causal evidence level*



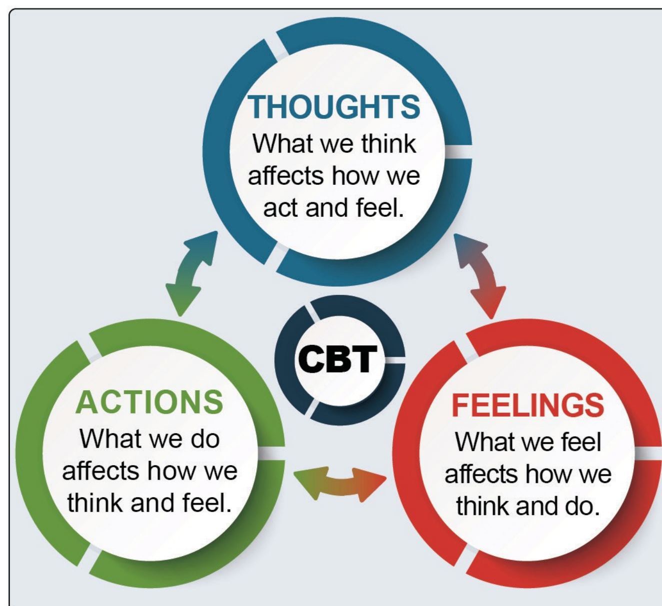
Identification of Effective Treatment Practices for Select Mental Illness and Co-Occurring Substance Use

Cognitive Behavioral Therapy

Moderate Evidence

Overview

Cognitive behavioral therapy (CBT) provides a framework for teaching skills related to managing emotions, challenging negative thoughts, and problem-solving.[1]



CBT is a short-term, goal-oriented psychotherapy treatment that enables individuals with co-occurring SED/SMI and SUD to identify and understand their current problems, challenges, and experiences, and change their patterns of thinking or behaviors. Using the CBT approach, clinicians can prioritize both SED/SMI and co-occurring SUD in setting treatment goals. CBT allows clinicians to use a consistent therapeutic approach to both disorders.[2] Previous systematic reviews have noted that CBT has favorable results for youth with anxiety or depression.[3-5]

Integrated Cognitive Behavioral Therapy (I-CBT) applies the same CBT tenets to address SUD and co-occurring suicidal ideation or post-traumatic stress.[2]

CBT specifically explores the relationship between these co-occurring disorders, while allowing flexibility in treatment sessions to work on them in isolation or at the same time. Common components of traditional CBT sessions for standalone disorders are combined, when logical, to address co-occurring disorders. For instance, certain problem-solving skills used for SUD and trauma are the same, so clinicians can present the problem-solving skills in the context of both disorders. The flexibility of this format allows for easy adaptation to the individual, their presenting problems, and treatment goals.

This review included five studies: four studies that assessed CBT[1, 6-8] and one study that examined I-CBT.[2]

While all studies reported positive, significant results, the I-CBT study, being the only randomized-controlled trial, determined the rating of the overall CBT practice.

All five studies were conducted in outpatient settings (community mental health centers and school-based health centers) with clients who have co-occurring substance misuse or SUD and mental disorders, including post-traumatic stress disorder (PTSD), major depressive disorder (MDD), and suicidal ideation.[1-2, 6-8] The studies found that CBT was associated with reductions in substance use and improvements in depressive symptoms. CBT can also be combined with motivational enhancement therapy (MET) and pharmacotherapy, as discussed in a separate section in this chapter.

Typical Settings

Mental health clinicians implement CBT in a wide range of healthcare settings, from inpatient psychiatric rehabilitation to community outpatient programs.[9]

Studies in the current evidence review were conducted in integrated outpatient settings in individual,[6-8] group,[8] and family[6,8] formats.

OUTCOMES ASSOCIATED WITH CBT

Studies have demonstrated that use of CBT with youth and young adults with co-occurring mental disorders and SUD was associated with significant reductions at follow-up in:

- Frequency of marijuana use[6-7]
- Frequency of general substance use[1, 6-7]
- Severity of PTSD symptoms[7-8]
- Severity of depressive symptoms[6,8]
- Frequency of trauma-associated cognitions[7]

The time between treatment and follow-up ranged between 0 and 9 months.

Outcomes Associated with I-CBT

One study demonstrated that use of I-CBT with youth and young adults with co-occurring SUD and suicidal thoughts and behaviors was associated with reductions at 6-month follow-up in:[2]

- Frequency of marijuana use
- Level of functional impairment

Demographic Groups

CBT is a widely used therapy, across genders, ages, races, and ethnicities. Studies included demographically diverse participants aged 11 to 20 with SUD and co-occurring mental disorders, including PTSD, MDD, and suicidal ideation.

Clinician Types

Many clinicians, including those in health care, mental health care, and juvenile justice settings, implement the core tenets of CBT. For co-occurring SED/SMI and substance misuse or SUD in youth and young adults, CBT is implemented by a variety of licensed behavioral health professionals. In the studies included in this review, master's level and PhD-level clinicians, as well as psychiatrists, delivered the interventions.

Intensity and Duration of Treatment

CBT is typically customized to the needs of each individual. Most people who seek CBT for co-occurring SED/SMI and SUD receive individual, weekly, 60-minute counseling

sessions.[11] In reviewed research studies, the total treatment ranged from 3 months to 12 months of weekly or twice-monthly sessions in both group and individual formats.

Multi-dimensional Family Therapy (MDFT)

Moderate Evidence

Overview

Family-based therapies refer to a discipline within psychotherapy and counseling that engages an individual along with their family members (e.g., parents, siblings, and other caregivers) in therapeutic sessions and treatment planning. Family-based therapy recognizes that an individual's symptom management, retention in treatment, and overall treatment response is shaped not only by individual-level factors (e.g., genetics, personal motivation) but also family-level factors (e.g., home environment, interpersonal relationships).

These therapies encompass numerous therapeutic schools of thought and individual treatment models, including, but not limited, to MDFT. MDFT is a manualized, family-based approach to treatment of youth substance misuse and SUD, concurrent substance use, and co-occurring mental health and behavioral problems.[12-13]

Three randomized control trials (RCTs) have shown effectiveness of MDFT for youth with varying severity and type of SUD, but who do not have co- occurring mental illness.[14-16] Another RCT showed effectiveness for youth with mental disorders.[17] A prior systematic review, which included five RCTs assessing MDFT's effectiveness in treating youth and young adults with substance misuse or SUD alone, found it slightly more effective in treating substance use than other treatments,[18] which means that it is likely more effective than treatment as usual or no treatment. This review found MDFT affected on non-opioid drug and concurrent substance use reduction at 6- and 12-month follow-up, when compared to other treatments, though the differences were small.[18]

A second research review assessed MDFT's effectiveness in reducing substance misuse, "delinquency, externalizing and internalizing psychopathology, and family malfunctioning" among adolescents with symptoms of substance misuse and/ or antisocial behavior (but without a diagnosed SED).

MDFT "integrates the clinical and theoretical traditions of developmental psychology and psychopathology, the ecological perspective, and family therapy…[and]… uses research-derived knowledge about risk and protective factors for adolescent drug and related problems as the basisfor assessment and intervention in four domains:

1. [Youth], as an individual and as a memberof a family or peer group,
2. Parent, both as an individual adult and inhis or her role as mother or father,
3. Family environment and the family relationships, as evidenced by familytransactional patterns, and
4. Extrafamilial sources of positive and negative influence."[14]

It found significant improvement on each of these outcomes, despite overall effect size being similarly small.[19] It also observed that adolescents with high severity substance misuse and disruptive behavior disorder benefited more from MDFT than those with less severe conditions.[19]

A separate study evaluating MDFT[14] conducted in outpatient settings with youth and young adults who have co-occurring mental disorders and substance misuse or SUD is included in this review. The study demonstrated significant reductions in substance use andnegative mental health outcomes.

More Research is Needed: While MDFT has been found to effectively treat substance misuse and SUD and mental disorders, a limited number of studies have examined the effectiveness of MDFT for co-occurring SED/SMI and SUD in youth and young adults. [14] At a time when rates of SED/SMI and SUD in youth and young adults are rising, and few programs are available with well-established effectiveness, additional studies ofMDFT's

effectiveness for youth and young adults with co-occurring SED/SMI and SUD would strengthen the body of evidence for its use in this population.

OUTCOMES ASSOCIATED WITH MDFT

One study demonstrated that use of MDFT with youth who have a co-occurring psychiatric disorder and SUD

was associated with significant reductions at follow-up of:

- Problems associated with substance use
- Frequency of substance use in prior 30 days
- Internalization of mental health symptoms

Outcomes were assessed at 2 and 18 months post intervention.[17]

Typical Settings

Family-based therapy can be conducted in both residential (e.g., inpatient, juvenile justice), home, and **community-based settings**. MDFT was developed for use in all setting types.[20] The reviewed study was conducted in a community-based setting.

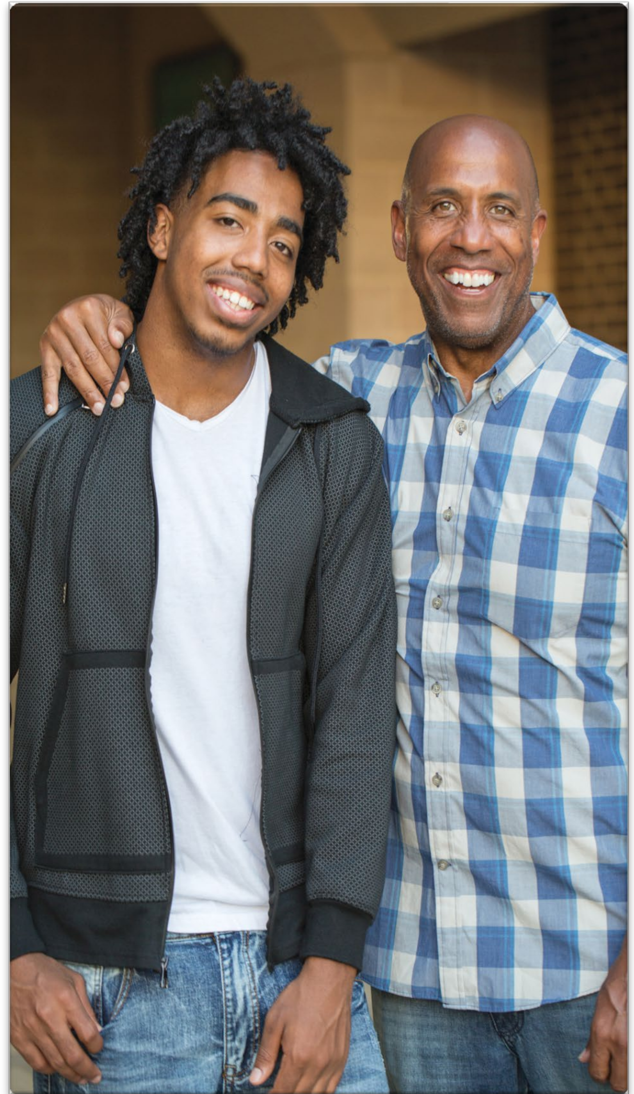
Demographic Groups

Family-based therapies engage family members and caregivers of all ages and backgrounds in the therapeutic process of the client. The individual around whom the treatment is organized is typically a youth, adolescent, or young adult, though specific treatment models and their applications may vary. MDFT, for example, was developed for youth and young adults.

In the reviewed study, the sample population was dually diagnosed at intervention outset. The MDFT study sample was majority male and non-White Hispanic.[17]

Individuals were excluded from participation in the study if they did not have a family member or caregiver willing to participate in the intervention, had active psychosis or suicidal ideation, or had limited cognition.

Clinician Types



A variety of mental health clinicians, including psychiatrists, psychologists, counselors, and social workers, can facilitate family-based therapies. MDFT clinicians must possess or be working toward a master's degree in a clinical field; further, they must complete an MDFT training and coaching certification program for full credentialing.[21]

In this review's study, master's level trained mental health clinicians served as the primary treatment clinicians.

Intensity and Duration of Treatment

Family-based therapies can vary significantly in treatment duration, intensity, and frequency. The length of treatment for MDFT is typically three to six months, with one to three hourly sessions per week.[21]

Pharmacotherapy

Moderate Evidence

Overview

Pharmacotherapy refers to medications approved by the Food and Drug Administration (FDA) to treat a youth's or young adult's SED/SMI. Pharmacotherapy may also include FDA-approved medications that address SUD, such as nicotine replacement and medications for opioid use disorder, depending on the individual's age.

The FDA has approved several medications to treat youth and young adults with SED and SMI and others for youth and young adults with SUD. Other medications have been approved by the FDA to treat SMI in adults; not all of these are approved for use in youth. While FDA approval is required to confirm that a medication is safe and effective for a particular condition, not all medications that are used to treat children have been specifically studied in children. When FDA approval is not present, practice guidelines for pharmacotherapy in youth populations are informed by expert clinician and field consensus, often cited in medical academies such as the American Academy of Child & Adolescent Psychiatry (AACAP).

Typically, medications are studied in adults to obtain FDA approval. Lack of FDA approval for use in children for a specific condition may mean that the pharmaceutical manufacturer did not conduct studies in children.

Specific mood and anxiety diagnoses have medications approved for use in both youth and young adults; these include for depression (fluoxetine and escitalopram), general anxiety disorder (**duloxetine**), and obsessive-compulsive disorder (OCD) (fluoxetine, clomipramine, fluvoxamine, sertraline). Different medications are approved for different phases of bipolar I disorder (acute mania, depression, mixed states, maintenance), including lithium, aripiprazole, risperidone, quetiapine, olanzapine (with and without fluoxetine), asenapine, and lurasidone. FDA-approved age ranges vary by medication. AACAP's clinical practice guidelines and practice parameters provide guidance in the assessment and treatment of child and adolescent disorders.

SAMHSA's *First-Episode Psychosis and Co-Occurring Substance Use Disorders Guide* describes effective treatment practices for individuals with these disorders. SAMHSA's *Treatment Improvement Protocol (TIP)*

63: Medications for Opioid Use Disorder documents three medications—buprenorphine, methadone, and naltrexone—that support improved health outcomes for individuals with opioid use disorder. The FDA has approved the use of buprenorphine for individuals aged 16 and older and the use of methadone and naltrexone for individuals 18 and older.

It is important providers address SED/SMI and SUD in treatment. Treating one condition will not treat the other.

Pharmacotherapy and Psychotherapy

Medications for mental disorders provide significant relief for many people and help manage symptoms to the point where people can use other strategies to pursue recovery from the substance use disorder.[31] For many people, the most effective behavioral health approach involves a combination of counseling and medication.[32]

Counseling and more specialized psychotherapies, including CBT and motivational enhancement therapy (MET) seek to change behaviors, thoughts, emotions, and how people see and understand situations.[29-30] **MET** is a brief intervention designed to enhance an individual's engagement in treatment, motivation to change, and self-efficacy by using a nonjudgmental approach of active listening, reflection, and evaluation of patient response.[31] CBT provides a framework for teaching skills related to managing emotions, challenging negative thoughts, and problem solving.[1] With a combined MET/ CBT intervention, clinicians employ MET during some sessions and CBT during others. The MET-focused sessions may touch on consequences of substance use, reasons for change, and goal setting. The CBT-focused sessions may focus on learning refusal skills, finding social supports, and planning how to manage emotions.[44] MET/CBT is a psychotherapy that clinicians use alone or in conjunction with pharmacotherapy to treat youth and young adults with co-occurring disorders.

There is some evidence that combined psychopharmacolgy and psychotherapy can be effective for the general adult population with co-occurring conditions. Selective serotonin reuptake inhibitors (SSRIs), for example,

have been effective in treating adults for depression with co-occurring alcohol use disorder.[22-24] For adults with co-occurring depression and alcohol dependence,

antidepressants—which included SSRIs—reduced the severity of depression and decreased alcohol use.[28]

Diagnosis	FDA-Approved Medication (Common brand name)	Age (in years)
Bipolar I disorder (acute mania and mixed phases)	Aripiprazole (Abilify)	10 and older
Bipolar I disorder (acute mania and mixed phases)	Asenapine (Saphris)	10 and older
Bipolar I disorder (depression phase)	Olanzapine and fluoxetine Combination drug (Symbyax)	10 and older
Bipolar I disorder (acute mania or mixed phases)	Risperidone (Risperdal)	10 and older
Bipolar I disorder (acute mania, mixed, and maintenance phases)	Lithium (Eskalith, Eskalith CR®, Lithobid®)	12 and older
Bipolar I disorder (acute mania or mixed phases)	Olanzapine (Zyprexa)	13 and older
Generalized anxiety disorder	Duloxetine (Cymbalta)	7 and older
Major Depressive Disorder (MDD)	Fluoxetine (Prozac)	8 and older
MDD	Escitalopram (Lexapro)	12 and older

Obsessive compulsive disorder (OCD)	Sertraline (Zoloft)	6 and older
OCD	Fluoxetine (Prozac)	7 and older
OCD	Fluvoxamine	8 and older
OCD	Clomipramine (Anafranil)	10 and older
Opioid use disorder (OUD)	Buprenorphine (Subutex, Suboxone)	16 and older
OUD	Methadone (Methadose, Dolophine)	18 and older
OUD, alcohol use disorder	Naltrexone (ReVia, Vivitrol)	18 and older

While the effectiveness of other medications in youth has been documented, the studies included in this review evaluated the impact of pharmacotherapy[38-43] and psychotherapy for youth and young adults with co-occurring MDD, other depressive disorders, OCD, and non-nicotine SUD. The medications (fluoxetine and sertraline) examined by the studies cited in this guide are approved by the FDA for use with youth under 18 years old, who have MDD and OCD, respectively. Five of the studies assessed fluoxetine,[38-40,42-43] and one study examined sertraline.[41]

In five of the six studies evaluating the impact of pharmacotherapy, all study participants received CBT or motivational enhancement therapy (MET) combined with CBT (also called MET/CBT). Four studies included both medication monitoring and therapy and community clinics.

OUTCOMES ASSOCIATED WITH PHARMACOTHERAPY

Reviewed studies demonstrated that all participants receiving pharmacotherapy and the CBT or MET/CBT showed improvements in depression symptomology and substance use.[38-42] One significant randomized controlled trial demonstrated that use of pharmacotherapy with youth and young adults who have co-occurring

depression and SUD (primarily alcohol and marijuana use disorders) was associated with a significant reduction in symptoms of depression beyond treatment as usual (CBT or MET/CBT); there was no significant reduction in substance use. Depression was assessed immediately post treatment.[42] In another study, participants receiving pharmacotherapy alone were compared with those receiving a pill placebo, CBT, or pharmacotherapy and CBT combined. There was no difference among the groups in substance use at follow-up.[43]

Study Demographic Groups

Five reviewed studies included youth and young adults aged 12 to 25 at time of treatment entry. In five studies, participants had comorbid MDD or other depressive disorders and non-nicotine SUD. [38-39,41-43] The sixth study included youth with MDD alone and assessed SUD at follow-up.[40]

Two of the studies had slightly more female participants than males,[39-40] while the other four studies had more male participants than female.[38,41-43] Participants were predominantly White.[39-43]

Generally, individuals were excluded if they had:

- Cognitive impairment
- Diagnosis of bipolar disorder, schizophrenia, or schizoaffective disorder
- Significant physical health conditions

One study excluded individuals with current substance use disorder at baseline, but examined substance use outcomes at follow-up.[40]

Clinician Types

Physicians or other qualified healthcare clinicians prescribe and monitor pharmacotherapy. In the research studies included in this review, a physician (including psychiatrists), a pharmacotherapist, or a research nurse monitored medication.

Intensity and Duration of Treatment

A physician or other qualified licensed, healthcare provider will determine the appropriate medication, dose, and duration of pharmacotherapy for youth and young adults with co-occurring mental disordersand SUD. These determinations will be specific to individuals and include factors such as diagnosis, symptom severity, patient preferences, and history of

treatment response. Pharmacotherapy duration may be short- or long-term and should be utilized in combinationwith other treatment.

General Principles of Management and Monitoring

Especially among youth and young adults, providers must monitor individuals for side effects, including by laboratory testing. Of specific concern for some but not all medications is the possible development of metabolic syndrome, clinical worsening, suicidal thoughts and behaviors, or unusual changes in behavior by the youth and young adult. The best strategy for preventing side effects is to maintain close working communication between the professional prescribing the medication andthe patient and guardian so concerns and questions aboutemerging and actual side effects can be discussed and addressed.

Summary of Evidence Review

Treatment Practice	Cognitive Behavioral Therapy (CBT)	Multidimensional Family Therapy (MDFT)	Pharmacotherapy
Review Rating	Moderate Evidence for Casual Impact	Moderate Evidence for Casual Impact	Moderate Evidence for Casual Impact
Description	Provides a framework for teaching skills related to managing emotions, challenging negative thoughts, and problem solving.	A discipline within psychotherapy and counseling that engaged and individual's family members (e.g.	Refers to medications approved by the FDA to treat a youth's or young

		parents, siblings, and other caregivers) in therapeutic sessions and treatment planning	adult's mental disorder
Settings	Integrated outpatient	Community-based	Single-site behavioral health practices at academic medical center and multiple sites, in both academic and community clinics
Diagnoses	Major depressive disorder and comorbid alcohol use disorder or cannabis use disorder; suicidal ideation and comorbid substance-related disorder	Mental disorder (unspecified) and SUD	Major depressive disorder and/or comorbid SUD, cannabis use disorder, or other substance-related disorder
Demographic groups	Demographically diverse study sample; aged 11-20	Predominantly Black, non-White Hispanic, males; aged 17 to 20	Predominantly White; aged 11 to 25
Clinician types	Master's and PhD-level clinicians; psychiatrists	Master's level trained mental health clinicians	Physicians (including psychiatrists) pharmacotherapists, and research nurses

Intensity and duration of treatment	12 to 33 weekly or biweekly sessions in both group and individual formats for 3 to 12 months	A minimum of weekly sessions over four to six months	A combination of medication monitoring and therapy visits assessing fluoxetine or sertraline

Reference List:

Walker, S. C., Duong, M., Hayes, C., Berliner, L.,Leve, L. D., Atkins, D. C., Herting, J. R., Bishop, A. S., & Valencia, E. (2019). A tailored cognitive behavioral program for juvenile justice-referred females at risk of substance use and delinquency: A pilot quasi-experimental trial. *PLoS One, 14*(11), e0224363. https://doi.org/10.1371/journal.pone.0224363

Esposito-Smythers, C., Spirito, A., Kahler, C. W., Hunt, J., & Monti, P. (2011). Treatment of co-occurring substance abuse and suicidality among adolescents: A randomized trial. *Journal ofConsulting and Clinical Psychology, 79*(6), 728–

739. https://doi.org/10.1037/a0026074

Hides, L., Quinn, C., Stoyanov, S., Kavanagh, D., & Baker, A. (2019). Psychological interventions for co-occurring depression and substance use disorders. *Cochrane Database of Systematic Reviews, 2019*(11), CD009501. https://doi.org/10.1002/14651858.cd009501.pub2

James, A., Soler, A., & Weatherall, R. (2005). Cognitive behavioural therapy for anxiety disordersin children and adolescents. *Cochrane Database of Systematic Reviews, 4*(4), CD004690. https://doi. org/10.1002/14651858.cd004690.pub2

Hetrick, S. E., Cox, G. R., Witt, K. G., Bir, J. J., & Merry, S. N. (2016). Cognitive behavioural therapy (CBT), third-wave CBT and interpersonal therapy (IPT) based interventions for preventing depression in children and adolescents. *Cochrane Database*

of Systematic Reviews, 2016(8), CD003380. https://doi. org/10.1002/14651858.cd003380.pub4

Curry, J. F., Wells, K. C., Lochman, J. E., Craighead, W. E., & Nagy, P. D. (2003). Cognitive-behavioral intervention for depressed, substance-abusing adolescents: Development and pilot testing. *Journal of the American Academy of Child & Adolescent Psychiatry, 42*(6), 656–665. https://doi.org/10.1097/01.chi.0000046861.56865.6c

Fortuna, L. R., Porche, M. V., & Padilla, A. (2018). A treatment development study of a cognitive and mindfulness-based therapy for adolescents with co-occurring post-traumatic stress and substance use disorder. *Psychology and Psychotherapy: Theory, Research and Practice, 91*(1), 42–62. https://doi. org/10.1111/papt.12143

Suarez, E., Jackson, D. S., Slavin, L. A., Michels, M. S., & McGeehan, K. M. (2014). Project Kealahou: Improving Hawai'i's system of care for at-risk girls and young women through gender-responsive, trauma-informed care. *Hawai'i Journal of Medicine & Public Health, 73*(12), 387–392. https://www. ncbi.nlm.nih.gov/pubmed/25628971

Randall, M., & Finkelstein, S. H. (2007). Integration of cognitive behavioral therapy into psychiatric rehabilitation day programming. *Psychiatric Rehabilitation Journal, 30*(3), 199–206. https://doi. org/10.2975/30.3.2007.199.206

[1]Graham, J. R., Sorenson, S., & Hayes-Skelton,

S. A. (2013). Enhancing the cultural sensitivity of cognitive behavioral interventions for anxiety in diverse populations. *The Behavior Therapist, 36*(5), 101–108. https://www.ncbi.nlm.nih.gov/ pubmed/25392598

Center for Substance Abuse Treatment. (1999). Enhancing motivation for change in substance abuse treatment. *Treatment Improvement Protocol Series,*

35. https://pubmed.ncbi.nlm.nih.gov/22514841/

[1]Liddle, H. (2010). Multidimensional family therapy: A science-based treatment system. *Australian and New Zealand Journal of Family Therapy, 31*(2), 133–148. https://doi.org/10.1375/anft.31.2.133

[1]Rowe, C. L. (2010). Multidimensional family therapy: Addressing co-occurring substance abuse and other problems among adolescents with comprehensive family-based treatment. *Child and Adolescent Psychiatric Clinics of North America, 19*(3), 563–576. https://dx.doi.org/10.1016%2Fj.chc.2010.03.008

[1]Liddle, H. A., Rowe, C. L., Dakof, G. A., Henderson, C., & Greenbaum, P. (2009). Multidimensional Family Therapy for early adolescent substance abusers: Twelve month outcomes of a randomized con-trolled trial. *Journal of Consulting and Clinical Psychology, 77*, 12–25. https://doi.org/10.1037/ a0014160

Dennis, M., Godley, S. H., Diamond, G., Tims, F. M., Babor, T., Donaldson, J., & Funk, R. (2004). The Cannabis Youth Treatment (CYT) study: Main findings from two randomized trials. *Journal of Substance Abuse Treatment, 27*, 197–213. https://doi.org/10.1016/j.jsat.2003.09.005

Henderson, C. E., Dakof, G. A., Greenbaum,P. E., & Liddle, H. A. (2010). Effectiveness of multidimensional family therapy with higher severity substance-abusing adolescents: Report from two randomized controlled trials. *Journal of Consulting and Clinical Psychology, 78*, 885–897.https://doi.org/10.1037/a0020620

Liddle, H. A., Dakof, G. A., Rowe, C. L., Henderson,C., Greenbaum, P., Wang, W., & Alberga, L. (2018). Multidimensional Family Therapy as a community- based alternative to residential treatment for adolescents with substance use and co-occurring mental health disorders. *Journal of Substance Abuse Treatment, 90*, 47–56. https://doi.org/10.1016/j. jsat.2018.04.011

Filges, T., Rasmussen, P. S., Andersen, D., & Jørgensen, A. M. K. (2015). Multidimensional Family Therapy (MDFT) for young people in treatment for non-opioid drug abuse: A systematic review. *Campbell Systematic Reviews, 11*(1), 1–124. https://doi.org/10.4073/csr.2015.8

van der Pol, T. M., Hoeve, M., Noom, M. J., Stams, G. J. J., Doreleijers, T. A., van Domburgh, L., & Vermeiren, R. R. (2017). Research Review: The effectiveness of multidimensional family therapyin treating adolescents with multiple behavior problems–a meta-analysis. *Journal of Child*

Psychology and Psychiatry, *58*(5), 532–545. https://doi.org/10.1111/jcpp.12685

MDFT International, Inc. (2020). *What is MDFT?:Treatment Settings*. http://www.mdft.org/MDFT-Program/What-is-MDFT#Treatment%20Settings

Dakof, G. A. (n.d.). *Getting started with MDFT*. MDFT International, Inc. http://www.mdft.org/mdft/media/ files/Documents/Getting-Started-With-MDFT.pdf

Cornelius, J. R., Salloum, I. M., Ehler, J. G., Jarrett, P. J., Cornelius, M. D., Perel, J. M., Thase, M. E., & Black, A. (1997). Fluoxetine in depressed alcoholics:

A double-blind, placebo-controlled trial. *Archives of General Psychiatry, 54*(8), 700–705. https://doi.org/10.1001/archpsyc.1997.01830200024004

Gorelick, D. A., & Paredes, A. (1992) Effect of fluoxetine on alcohol consumption in male alcoholics. *Alcoholism: Clinical and Experimental Research, 16*(2), 261–265. https://doi.org/10.1111/j.1530-0277.1992.tb01373.x

Sellers, E. M., Toneatto, T., Romach, M. K., Somer, G. R., Sobell, L. C., & Sobell, M. B. (1994). Clinicalefficacy of the 5-HT3 antagonist ondansetron in alcohol abuse and dependence. *Alcoholism: Clinical and Experimental Research, 18*(4), 879–885. https://doi.org/10.1111/j.1530-0277.1994.tb00054.x

Hetrick, S. E., McKenzie, J. E., Cox, G. R., Simmons, M. B., & Merry, S. N. (2012). Newer generation antidepressants for depressive disordersin children and adolescents. *Cochrane Database of Systematic Reviews, 11*, CD004851. https://doi.org/10.1002/14651858.cd004851.pub3

Cox, G. R., Callahan, P., Churchill, R., Hunot, V., Merry, S. N., Parker, A. G., & Hetrick, S. E. (2012). Psychological therapies versus antidepressant medication, alone and in combination for depressionin children and adolescents. *Cochrane Database of Systematic Reviews, 11* (11), CD008324. https://doi.org/10.1002/14651858.cd008324.pub2

Ipser, J. C., Stein, D. J., Hawkridge, S., & Hoppe, L. (2009). Pharmacotherapy for anxiety disorders in children and adolescents. *Cochrane Database ofSystematic Reviews, 3*(3), CD005170. https://doi. org/10.1002/14651858.cd005170.pub2

Agabio, R., Trogu, E., & Pani, P. P. (2018). Antidepressants for the treatment of people with co-occurring depression and alcohol dependence. *Cochrane Database of SystematicReviews, 4*(4), CD008581. https://dx.doi.org/10.1002%2F14651858.CD008581.pub2

American Academy of Child & Adolescent Psychiatry. (2019). *Psychotherapy for Children and Adolescents: Different Types*. https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/ FFF-Guide/Psychotherapies-For-Children-And- Adolescents-086.aspx

Substance Abuse and Mental Health Services Administration. (2012). *General Principles for the Use of Pharmacological Agents to Treat Individualswith Co-Occurring Mental and Substance Use Disorders*. http://www.ncdsv.org/images/SAMHSA_GeneralPrinciplesUsePharmacologicalAgentsTreatI ndividualsCo-OccuringMentalSubstanceUseDisorders_2012.pdf

American Psychological Association. (2017). *Clinical Practice Guideline for the Treatment of PTSD.* https://www.apa.org/ptsd-guideline/ptsd.pdf

National Institute of Mental Health. (n.d.). *Mental Health Medications. Special Groups: Children, Older Adults, Pregnant Women.* https://www.nimh.nih.gov/health/topics/mental-health-medications/ index.shtml#part_149868

Mayo Clinic Staff. (2019). *Antidepressants for children and teens.* https://www.mayoclinic.org/ diseases-conditions/teen-depression/in-depth/antidepressants/art-20047502

Heiber, R. (2013). Toolbox: Psychotropic medications approved in children and adolescents. *Mental Health Clinician, 2*(11), 344–346. https://doi.org/10.9740/mhc.n145473

Substance Abuse and Mental Health Services Administration. (2020). Medications for OpioidUse Disorder. Treatment Improvement Protocol

63. https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorder-Full-Document/PEP20-02-01-006

Squeglia, L.M., Fadus, M.C., McClure, E.A., Tomko, R.L., & Gray, K.M. (2019). Pharmacological treatment of youth substance use disorders. Journal of Child and Adolescent Psychopharmacology, 29(7), 559–572. https://doi.org/10.1089/cap.2019.0009

Substance Abuse and Mental Health Services Administration and National Institute on Alcohol Abuse and Alcoholism. (2015) Medication for the Treatment of Alcohol Use Disorder: A Brief Guide. HHS Publication No. (SMA) 15-4907. https://store.samhsa.gov/sites/default/files/d7/priv/sma15-4907.pdf

Cornelius, J. R., Bukstein, O. G., Douaihy, A. B., Clark, D. B., Chung, T. A., Daley, D. C., Wood, D. S., & Brown, S. J. (2010). Double-blind fluoxetine trial in comorbid MDD-CUD youth and young adults. Drug and Alcohol Dependence, 112(1-2), 39–45. https://doi.org/10.1016/j.drugalcdep.2010.05.010

Cornelius, J. R., Bukstein, O. G., Wood, D. S., Kirisci, L., Douaihy, A., & Clark, D. B. (2009). Double-blind placebo-controlled trial of fluoxetine in adolescents with comorbid major depression and an alcohol use disorder. Addictive Behaviors, 34(10), 905–909. https://dx.doi.org/10.1016%2Fj. addbeh.2009.03.008

Curry, J., Silva, S., Rohde, P., Ginsburg, G., Kennard, B., Kratochvil, C., Simons, A., Kirchner, J., May, D., Mayes, T., Feeny, N., Albano, A. M., Lavanier, S., Reinecke, M., Jacobs, R., Becker- Weidman, E., Weller, E., Emslie, G., Walkup, J., Kastelic, E., Burns, B., Wells, K., & March, J. (2012). Onset of alcohol or substance use disorders following treatment for adolescent depression. Journal of Consulting and Clinical Psychology, 80(2), 299–312. https://dx.doi. org/10.1037%2Fa0026929

Chapter 3: Guidance for Selecting and Implementing Evidence-Based Treatment Practices

Before implementing a treatment practice or program to treat youth or young adults with co-occurring disorders, it is important to determine whether the intervention is appropriate for the particular setting, context, and population.

This chapter provides an overview of:

- Factors that organizations and other stakeholders must consider prior to and during implementation of treatments
- Strategies to promote implementation and the appropriate adaptation of treatment practices to the population of focus
- Resources for the treatment practices described in Chapter 2

Key Considerations When Selecting and Implementing Treatment Practices to Address Co-occurring Disorders

The following considerations inform decisions related to choosing and implementing interventions to address co-occurring serious emotional disturbances (SED/ serious mental illnesses (SMI) and substance misuse, and substance use disorders (SUD):

1. Treatment practice selection
   a. Assessing and responding to specific needs
   b. Cultural adaptation and responsiveness
   c. Treatment setting and level of care

d. Assessing fidelity

2. Funding
3. Training and staffing
4. Coordination of care
5. Treatment engagement, retention, and adherence
6. Relapse prevention and recovery supportEach consideration is described in detail below.

Treatment Practice Selection

Several factors influence treatment practice selection. Clinicians should consider the youth's presenting co- occurring disorders, symptoms, acuity, culture, and life circumstances. Fidelity, which is the extent to which a clinician adheres to the core components of the programor treatment practice, should be carefully considered when adapting a treatment practice based on these individual factors.

Assessing and Responding to Specific Needs

Strategies

- ***Compare the effectiveness of interventions in treating the individual's presenting diagnoses.*** For instance, if a youth or young adult has co-occurring major depressive disorder (MDD) and SUD, cognitive behavioral therapy (CBT) is likely to be an effective treatment.
- ***Consider the youth's readiness to change.*** CBT and motivational enhancement therapy/CBT (MET/CBT) can be helpful in engaging youth and young adults in treatment, providing them with needed self-efficacy, and helping them assess their own readiness and motivation to change. For example, CBT can be integrated with the proven principles of motivational interviewing (MI) to improve outcomes. MI is a counseling technique and treatment approach that helps individuals overcome ambivalent feelings and resistance, while clinicians offer their empathy and support. In the process, individuals become motivated to explore the reasons for their behavior with the goal of eliciting positive behavioral change.

Conditions where people live, learn, work, and play that affect their health and wellbeing are known as ***social determinants of health.***

- ***Examine the youth's life circumstances, developmental stage, and social determinants of health***. Clinicians should be mindful that underlying social determinants of health (e.g., food, clothing, housing, safety, and transportation)impact the treatment services people receive, treatment outcomes, and overall quality of life. Clinicians should connect youth to case management or other social services wheneverfeasible. Clinicians can screen for and identify areas of need using the PRAPARE Toolkit (Protocol for Responding to and Assessing Patient's Assets, Risks, and Experiences) from the National Association of Community Health Centers. Additionally, clinicians need to evaluate a youth or young adult's emotionaland social developmental stages and provide developmentally appropriate interventions.
- ***Assess family influences and characteristics.*** If an underlying cause of a clinical diagnosis is related to a family issue, a family-based therapy may improve treatment outcomes. Strategies that support and enhance the mental health of parentsand caregivers improve outcomes for youth and young adults.[1] Family-based therapy recognizes that an individual's symptom management, retention in treatment, and overall treatment response is shaped not only by individual-level factors (e.g., physiology, personal motivation), but also by family-level factors (e.g., home environment, interpersonal relationships).
- ***Provide trauma-informed care.*** Many youth and young adults

experience a traumatic eventor live within traumatic circumstances or chronic trauma or stress. The Substance Abuse and Mental Health Services Administration (SAMHSA) has identified four principles that ground trauma-informed care:[2]

- People at all levels of the organization or system have a basic realization abouttrauma and understand how trauma can affect families, groups, organizations, and communities as well as individuals.
- People in the organization or system are alsoable to recognize the signs of trauma.
- The program, organization, or system responds by applying the principles of a trauma-informed approach to all areas of functioning.
- A trauma-informed approach seeks to resist re-traumatization of clients as well as staff.

Cultural Adaptation of Treatment Practices

Strategy

If shown to be effective, adapt treatment practices to the youth's cultural values.

Motivational techniques are adaptable for multiple cultures, as the process of change and motivational enhancement can be tailored to the values, beliefs, and experiences of individuals from different ethnic, cultural, and racial backgrounds. MI fits well with cultural beliefs of the American Indian/Alaska Native community,[3] and there have also been positive results adaptingMI for Latino immigrants that misuse alcohol.[4]

- Published articles written by providers who have adapted MI are available, documenting adaptation of MI to particular populations with positive results.[4-6] CBT is adaptable to multiple cultures using a set of principles to guide the changes. Peer-reviewed articles have been published on adapting CBT to multiple cultures for differing symptoms and disorders. This adaptation is known as culturally adapted cognitive behavioral therapy (CA-CBT). For example, articles are available on adapting CBT

for Chinese Americans with depression,[7] migrants and ethnic minorities with post- traumatic stress disorder (PTSD),[8] and LGBT Latino/a youths and young adults.[9] Family-

- based therapy (FBT) approaches, predicated on connecting with family members and addressing negative dynamics and behavioral patterns unique to each family system, have also been adapted to multiple cultures. For example, Familias Unitas is an FBT adapted for Latino/a youth at risk for using drugs and their families.[10]

- There is a need for more research and evidence on fidelity of treatment practices with diverse cultures. Cultural adaptations to treatment practices must maintain a careful balance with fidelity of the treatment practice.

Terminology

Pharmacotherapy is the treatment of diseasethrough the administration of drugs.[11]

Psychotherapy involves communication betweenpatients and therapists that is intended to help people find relief from emotional distress, seek solutions to problems in their lives, or modify ways of thinking or acting that are preventing them from achieving their potential.[12]

Treatment Setting and Level of Care

Strategies

- ***Assess severity of the symptoms to determine the setting in which services are delivered.*** Levels of care are used to help assign and direct the intensity of services appropriate to treat the patient. Youth and young adults with less severe symptoms may benefit most from outpatient care, including care delivered in the primary care setting. Inpatient or other intensive modes of treatment may be more suitable for youth and young adults with severe symptoms.

- ***Consider treatment history.*** Clinicians may needto try multiple treatments to determine what works for a particular individual. Clinicians should also determine what specific treatment corresponds with the symptoms and severity
of the disorders; this is particularly critical for selection of the appropriate pharmacologic option for the youth or young adult. If symptoms do not improve with psychotherapy methods, adding pharmacotherapy to traditionalmethods may be a route to consider. The American Academy of Child & Adolescent Psychiatry provides parameters on selecting pharmacotherapy options for the treatment of bipolar disorder, depression,

and anxiety (www.aacap.org). Pharmacotherapy or combined treatments may be best for youth and young adults who have not shown improvement with psychotherapy alone. Selective serotonin reuptake inhibitors (SSRI) are often used to treat depression in adults and young adults. Early research examining the combined impact of an SSRI and MET/CBT shows improvement in depression symptoms and reduced substance use among recipients when assessed at follow-up.

Assessing Fidelity to the Treatment Practice

Strategies

- ***Carefully balance adaptation with fidelity of practice.*** **Fidelity**, also referred to as adherence, is defined as the extent to which the clinician delivering an intervention adheres to the protocol or program model intended by its developers.[13] It is important that clinicians always consult training manuals and implementation guides for treatment practices prior to utilization. While guides may not address how to approach youth and young adults with co-occurring disorders, clinicians can adapt treatment practices while still ensuring fidelity to core principles and treatment practice components. In some circumstances, adaptation may even enhance program or treatment practice outcomes.

Some examples include when:[14-15]

- A treatment practice is tailored to local beliefs, languages, or culture to enhance its relevance
- A program component is added
- Minor modifications are made to a treatment practice or program component

- ***Collect data and evaluate effectiveness.*** By ensuring fidelity to core components when making adaptations, not only will clients have a better chance at symptom improvement,

but clinicians implementing these treatment practices will be able to better assess their impact on symptom reduction. To ensure adapted treatment practices are implemented with their core elements upheld, it is essential to collect data to assess treatment practice outcome. When programs are adapted,

evaluation of the adapted treatment practice tells the clinician and program administrator whether it has still achieved expected outcomes

Clinicians and program managers should document adaptations made to programs and treatment practices along five dimensions:

- **Adherence**—the extent to which program or treatment practice components are delivered as intended
- **Dosage**—number of sessions, attendance, and frequency and duration of sessions
- **Quality of delivery**—the way a program or treatment practice is delivered
- **Participant responsiveness**—the way clients react to or engage in treatment
- **Program differentiation**—the degree to which the critical components are delivered and distinguishable from each other[13]

Training and Staffing

It is important for staff to receive training that is developmentally appropriate for youth and young adults, is trauma-informed, and includes knowledge of SED, SMI and SUD. Specific training on co-occurring disorder treatment for youth and young adults is still in the early stages, and few clinicians specialize in this area.[16] Program leaders must ensure every clinician has received necessary training and fully understand not only the underlying tenets of the system, but the guidelines, methods, and structure for utilizing a given treatment practice with clients. Additionally, supervisors should ensure the treatment practice is implemented and used in a consistent manner across clinicians (see discussion of fidelity above).

Strategy

- ***Provide initial and ongoing training to staff.*** Associations, such as the American

Psychological Association, provide continuing professional education and training on numeroustopics, including on treating children with co- occurring disorders. A well-trained workforce that has opportunities to expand its knowledge and skills is critical.[1]

Coordination of Care

Co-occurring disorders are complex and best viewed through a holistic lens. Family and peer relationships, community programs, academic institutions, child welfare systems, and the juvenile justice system all playa role in health and wellbeing.

decision-making in young adulthood.[17] Engaging youth and young adults is critical to achieving long- term changes. The early stages of therapy are often themost important for youth engagement, especially if the individual did not seek therapy on his or her own. Additionally, logistical and resource concerns like transportation and insurance instability can be major barriers to treatment initiation and retention.

Strategies

- ***Incorporate engagement goals in clients' treatment plans.*** To promote engagement and adherence throughout the treatment process, goal setting and treatment planning should be a collaborative process and tied to the

individual's own objectives. The goals of therapy should be meaningful and tied to long-term aspirations. Smaller goals should be built into the treatment plan that are realistic and attainable.[18] Setting and continually reviewing progress on goals and the treatment plan can enhance motivation while allowing the clinician to assess the level of client engagement throughout the treatment process.[17]

- ***Utilize MI or other brief approaches to heighten motivation and increase self-efficacy.*** Clinicians can use MI to help engage clients in treatment at the outset. They can also use it in combination with other treatments, such as CBT, to enhance retention and adherence throughout the treatment process.[19-20]
- ***Strengthen relationships between the clinician, client, and families.*** Therapeutic alliance, or
  the way in which people connect, behave, and engage with the therapist, is a strong predictor of retention in treatment. Family therapists may be able to increase family engagement in treatment by building relationships with family members, educating them on the treatment practices being used, and encouraging positive relationship- building within the family.[21]
- ***Identify barriers to treatment and provide resources to finish treatment.*** Completing a treatment protocol is integral to successful

recovery. While engagement in treatment may be the most obvious factor, there are several other factors that impact whether youth can complete treatment. Transportation to appointments, parental/guardian support, school attendance, stable housing, and health insurance are all important factors for treatment completion. Clinicians should be aware of the potential barriers youth face and assist with resources and flexibility. decision-making in young adulthood.[17] Engaging youth and young adults is critical to achieving long- term changes. The early stages of therapy are often the most important for youth engagement, especially if the individual did not seek therapy on his or her own. Additionally, logistical and resource concerns like transportation and insurance instability can be major barriers to treatment initiation and retention.

Strategies

- ***Incorporate engagement goals in clients' treatment plans.*** To promote engagement and adherence throughout the treatment process, goal setting and treatment planning should be a collaborative process and tied to the individual's own objectives. The goals of therapy should be meaningful and tied to long-term aspirations. Smaller goals should be built into the treatment plan that are realistic and attainable.[18] Setting and continually reviewing progress on goals and the treatment plan can enhance motivation while allowing the clinician to assess the level of client engagement throughout the treatment process.[17]
- ***Utilize MI or other brief approaches to heighten motivation and increase self-efficacy.*** Clinicians can use MI to help engage clients in treatment at the outset. They can also use it in combination with other treatments, such as CBT, to enhance retention and adherence throughout the treatment process.[19-20]
- ***Strengthen relationships between the clinician, client, and families.*** Therapeutic alliance, or the way in which people connect, behave, and engage with the therapist, is a strong predictor of retention in treatment. Family therapists may be able to increase family engagement in treatment by building relationships with family members, educating them on the treatment practices being used, and encouraging positive relationship- building within the family.[21]
- ***Identify barriers to treatment and provide resources to finish treatment.*** Completing a treatment protocol is integral to successful recovery. While engagement in treatment may be the most obvious factor, there are several other factors that impact whether youth can complete treatment. Transportation to appointments, parental/guardian support, school attendance, stable housing, and health insurance are all important factors for treatment completion.

Clinicians should be aware of the potential barriers youth face and assist with resources and flexibility when possible.

Relapse Prevention and Recovery Support

Individuals with co-occurring disorders have higher rates of substance use relapse than those with SUD alone.[22] Youth and young adults typically have fewer coping mechanisms and are more impulsive than adults. Recovery supports are therefore an important post- treatment component. Those attending post-treatment programs involving case management and community reinforcement were more likely to remain abstinent from alcohol and marijuana use at three-month follow-up.[23]

Strategies

Equip youth with the tools and skills needed to prevent relapse and support recovery. Because youth and young adults are more likely to make risky and impulsive decisions, incorporating the development of healthy coping mechanisms into treatment is important. Clinicians should put long-term recovery resources and support systems in place prior to treatment completion. CBT provides tools that help individuals understand triggers for substance use and identify healthy ways of coping. These skills assist youth beyond the length of treatment.

- ***Provide recovery support services.*** Youth and young adults who participate in an aftercare program receive additional support services in the community, and case managers within these programs can identify if or when a client may be at risk for relapse and refer them to other helpful

services or their treatment provider.

- ***Engage families.*** Families can play a crucial role in aiding youth in recovery by providing a support system. The Partnership for Drug-Free Kids hosts many support groups, continuing education programs, and other resources for parents of youth with SUD.

Treatment Practice Resources

In addition to the introductory, overarching implementation guidance provided above, there are several manuals and resources developed specifically to help stakeholders implement the treatment practices described in Chapter 2. Please note that this guide is not intended to be a training manual, but additional resources are available to support implementation of these treatment practices.

Resources for Family Members

The Partnership for Drug-Free Kids provides a compendium of resources for parents of youth with SUD and related mental health issues, as well as online trainings and support groups.

The Child Mind Institute and Partnership for Drug-Free Kids developed a parent's guide to recognizing and addressing co-occurring SUD in their teens and young adults.

Treatment of Co-occurring Disorders Resources

SAMHSA's TIP 42: Substance Use Treatment for Persons With Co-Occurring Disorders provides addiction counselors and other clinicians, supervisors, and administrators with the latest science in the screening, assessment, diagnosis, and management of co-occurring disorders.

Cognitive Behavioral Therapy (CBT)Resources

The Academy of Cognitive and Behavioral Therapies provides resources for both clinicians and patients, including a therapist search tool, a list of training programs (both in-person and virtual), information on clinician certification, and a guide to serving children and youth. Training and consultation are available to assist those implementing CBT.

The Beck Institute offers online training courses, information about in-person workshops, blogs, resources, and live assistance with program implementation, utilizing supervision, and consultation.

The Computer Based Training for Cognitive Behavioral Therapy (CBT4CBT) is a self-guided, web-based program developed by a team of researchers and clinicians at Yale University that uses interactive exercises and videos to guide users through seven lessons. It can be accessed through clinician or patient log-in. It is available in both English and Spanish and the CBT toolkit is available for purchase.

The developers of I-CBT provide guidance on how to select treatment candidates for I-CBT, and a case study example of how to implement I-CBT in the following 2019 book chapter: Esposito-Smythers, C., Spirito, A., & Wolff, J. (2019). CBT for co-occurring suicidal behavior and substance use (I-CBT). In M. Berk (Ed.) *Evidence- Based Treatment Approaches for Suicidal Adolescents: Translating Science into Practice*. Arlington, VA: American Psychiatric Publishing.

SAMHSA’s Mental Health Technology Transfer Center Network provides CBT guidelines, training manuals, toolkits, workbooks, and training modules, as well

as resources for implementing CBT with specific populations and for specific applications (e.g., SUD, anger management, mental health issues). The resources are available in multiple languages, including Spanish and Chinese.

Multidimensional Family TherapyResources

MDFT International's webpage offers treatment manuals and videos, training opportunities, and information aboutimplementing MDFT in Spanish and French. It provides initial and ongoing support to those implementing MDFT in substance abuse, mental health, juvenile justice, and child welfare practice settings available through the organization.

The National Institute of Justice's clearinghouse of MDFT programs and treatment practices includes descriptions, outcomes, and implementation information,as well as a rating of the supporting evidence.

Pharmacotherapy Resources

The Food and Drug Administration's Suicidality in Children and Adolescents Being Treated With Antidepressant Medications' webpage describes the
warning to clinicians and consumers about the increasedrisk of suicidal thinking and behavior in children and youth that must be included on the labeling for all antidepressant drugs.

SAMHSA's General Principles for the Use of Pharmacological Agents to Treat Individuals with Co- occurring Mental and Substance Use Disorders outlines principles of use. It is designed primarily for clinicians who prescribe medication for adults with co-occurring mental and substance use disorders and those working in administrative and leadership roles in programs or agencies that serve adults with co-occurring disorders.

Reference List

[1] National Academies of Sciences, Engineering, and Medicine. (2019). *Fostering healthy mental, emotional, and behavioral development in children and youth: A national agenda.* Washington, DC: The National Academies Press. https://doi.org/10.17226/25201

[2] Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. https://ncsacw.samhsa.gov/userfiles/files/SAMHSA_Trauma.pdf

[3] Venner, K. L., Feldstein, S. W., & Tafoya, N. (2006). *Native American motivational interviewing: Weaving Native American and western practices*. https:// casaa.unm.edu/download/nami.pdf

[4] Lee, C. S., Lopez, S. R., Hernandez, L., Colby, S. M., Caetano, R., Borrelli, B., & Rohsenow, D. (2011). A cultural adaptation of motivational interviewing to address heavy drinking among Hispanics. *Cultural Diversity & Ethnic Minority Psychology, 17*(3), 317–324. https://doi.org/10.1037/a0024035

[5] Interian, A., Martinez, I., Rios, L. I., Krejci, J., & Guarnaccia, P. J. (2010). Adaptation of a motivational interviewing intervention to improve antidepressant adherence among Latinos. *Cultural Diversity & Ethnic Minority Psychology, 16*(2), 215–225. https://doi.org/10.1037/a0016072

[6] Oh, H., & Lee, C. (2016). Culture and motivational interviewing. *Patient Education and Counseling, 99*(11), 1914–1919. https://dx.doi.org/10.1016%2Fj.pec.2016.06.010

[7] Hwang, W. C., Myers, H. F., Chiu, E., Mak, E., Butner, J. E., Fujimoto, K., Wood, J. J., & Miranda, J. (2015). Culturally adapted cognitive-behavioral therapy for Chinese Americans with depression:

a randomized controlled trial. *Psychiatric Services, 66*(10), 1035–1042. https://dx.doi.org/10.1176%2Fappi.ps.201400358

[8] Hinton, D. E., Rivera, E. I., Hofmann, S. G., Barlow, D. H., & Otto, M. W. (2012). Adapting CBT for traumatized refugees and ethnic minority patients: Examples from culturally adapted CBT (CA-CBT). *Transcultural Psychiatry, 49*(2), 340–365. https://doi.org/10.1177%2F1363461512441595

[9] Duarte-Velez, Y., Guillermo, B., & Bonilla, K. (2010). Culturally adapted cognitive-behavior therapy: integrating sexual, spiritual, and family identities in an evidence-based treatment of a depressed Latino adolescent. *Journal of Clinical Psychology, 66*(8), 895–906. https://doi.org/10.1002/jclp.20710

[10] Prado, G., Cordova, D., Huang, S., Estrada, Y., Rosen, A., Bacio, G. A., Jimenez, G. L., Pantin, H., Brown, C. H., Velazquez, M. R., Villamar, J., Freitas, D., Tapia, M. I., & McCollister, K. (2012). The efficacy of Familias Unidas on drug and alcohol outcomes for Hispanic delinquent youth: main effects and interaction effects by parental stress and social support. *Drug and Alcohol Dependence, 125*(Suppl 1), S18–S25. https://dx.doi.org/10.1016%2Fj.drugalcdep.2012.06.011

[11] Merriam-Webster. (n.d.) Pharmacotherapy. In *Merriam-Webster.com dictionary*. Retrieved July 8 2020, from https://www.merriam-webster.com/dictionary/pharmacotherapy.

[12] American Psychological Association. (2017). *What is psychotherapy?* https://www.apa.org/ptsd-guideline/patients-and-families/psychotherapy

[13] James Bell Associates. (2009). *Evaluation brief: Measuring implementation fidelity*. https:// www.jbassoc.com/wp-content/uploads/2018/03/Measuring-Implementation-Fidelity.pdf

[14] Backer, T. E. (2002). *Finding the balance: program fidelity and adaptation in substance abuse prevention: A state-of-the-art review*. Center for Substance Abuse Prevention. https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/ PB2004101354.xhtml

[15] McHugh, R. K., Murray, H. W., & Barlow, D. H. (2009). Balancing fidelity and adaptation in the dissemination of empirically-supported treatments: The promise of transdiagnostic interventions. *Behavior Research and Therapy, 47*(11), 946–953. https://doi.org/10.1016/j.brat.2009.07.005

[16] Hawkins, E. H. (2009). A tale of two systems: co-occurring mental health and substance abuse disorders treatment for adolescents. *Annual Review of Psychology, 60*, 197–227. https://doi.org/10.1146/annurev.psych.60.110707.163456

Goodman, I., Peterson-Badali, M., & Henderson, J. (2011). Understanding motivation for substance use treatment: the role of social pressure during the transition to adulthood. *Addictive Behaviors, 36*(6), 660–668. https://doi.org/10.1007/s10591-007-9030-6

[18] Creed, T. (2017, September 6). *Goal setting to engage adolescents: CBT for youth*. Beck Institute. https://beckinstitute.org/goal-setting-engage-adolescents/

[19] Bukstein, O. G. (2005). Practice parameter for the assessment and treatment of children and adolescents with substance use disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 44*(6), 609–621. https://doi.org/10.1097/01.chi.0000159135.33706.37

[20] Schwartz, C., Garland, O., Harrison, E., & Waddell, C. (2007). *Treating concurrent substance use and mental disorders in youth*. Simon Fraser University. https://childhealthpolicy.ca/wp-content/themes/chpc/pdf/RR-16-07-full-report.pdf

[1] Thompson, S. J., Bender, K., Lantry, J., & Flynn, P. M. (2007). Treatment engagement: Building therapeutic alliance in home-based treatment with adolescents and their families. *Contemporary Family Therapy, 29*(1–2), 39–55. https://doi.org/10.1007/s10591-007-9030-6

[22] Biegel, L., Kola, L. A., & Ronis, R. R. (2007). Supporting the implementation of evidence-based practices for adults with co-occurring mental and substance use disorders. *International Journal of Behavioral Consultation and Therapy, 3*(1), 1–12. http://dx.doi.org/10.1037/h0100179

[23] Godley, S. H., Godley, M. D., & Dennis, M. L. (2001). The assertive aftercare protocol for adolescent substance abusers. In E. Wagner & H. Waldron (Eds.), *Innovations in adolescent substance abuse interventions* (pp. 311–329). Elsevier Science.

Chapter 4: Examples of Treatment Programs

This chapter highlights five examples of programs that provide treatment and support to youth and young adults with serious emotional disturbances (SED)/serious mental illnesses (SMI) and co-occurring substance use or substance use disorders (SUD). Each program uses one or more of the treatment practices detailed in Chapter 2:

- Cognitive behavioral therapy (CBT)
- Multidimensional family therapy
- Pharmacotherapy

The chapter describes how each program has incorporated these treatment practices as part of a comprehensive strategy to address the needs of their populations.

Programs should implement treatment practices with fidelity to evaluated models. Fidelity is the degree to which a program delivers a treatment practice as intended and must be maintained for desired therapy outcomes; however, many programs adapt chosen treatment practices to better serve their clients. As clinicians modify these treatment practices to address the needs and constraints of their population, budget, setting, and other local factors, fidelity to the treatment practice's foundational principles and core components is essential. The programs in this chapter were identified through reviewing the literature, scanning community programs, and consulting with experts. The programs implement treatment

practices with documented evidence of success (see Chapter 2), target youth and young adults with a range of mental health and substance use problems, and

serve geographically, racially, and ethnically diverse populations. The programs have not been subject to rigorous evaluation of effectiveness and are offered here only as implementation examples.

To be included in this chapter, programs had to:

- Implement one or more of the treatment practices identified in Chapter 2
- Be replicable (well-defined with guidance materials or a manual)
- Provide appropriate and effective interventions for their particular geographic area, treatment practice setting, and population

Whenever possible, programs were chosen for inclusion that have findings to support their impact on SED/SMI and co-occurring substance use or SUD.

The summaries include information gathered through interviews with each program and other program materials (print or online). Each summary concludes with lessons learned that clinicians shared during the interview.

Co-occurring Disorders Program

Bradley Hospital (Providence, RI)

Established in 2017, Bradley Hospital's Co-occurring Disorders Program (CDP) is an intensive outpatient program (IOP) for youth with co-occurring mental health and substance use issues. The program typically serves 10 youth at a time. Some are referred from a higher level of care (e.g., emergency department, inpatient treatment), while others are referred by parents or pediatricians.

Participants range in age from 13 to 18, with an average age of 16. They are 63 percent male, and 79 percent are White, 10 percent are Black/African American, and 10 percent are Hispanic. Participants commonly present with depression or anxiety. Most have issues with alcohol or marijuana use, though some are primarily using other drugs (e.g., benzodiazepines, inhalants, or opioids). Many also have a history of trauma.

The program provides 9 hours of direct service each week (3 hours of care, 3

afternoons per week), which provides youth with intensive treatment while affording the ability to participate in school. Each week, services include:

- Skills-based group therapy that integrates dialectical behavior therapy (DBT) and mindfulness
- Two individual therapy sessions
- At least 1 hour of family therapy
- Medication monitoring, as needed

Depending on individual treatment needs, participants may also meet with a nurse to address additional clinical issues. Other components include school consultation, case management, psychoeducational programming, and health promotion.

Group therapy sessions are skills-driven, and employ equal parts motivational enhancement therapy (MET) and cognitive behavioral therapy (CBT).

Multidimensional family therapy (MDFT) is provided to improve family communication, functioning, problem solving, and emotion regulation, set clear expectations and consequences (good and bad), address school-based functioning, and keep youth out of the legal system (or help them get out). Substance use monitoring is part of treatment.

Treatment Practice Implemented by the Program

Pharmacotherapy, Multidimensional Family Therapy (MDFT)

Setting

Intensive outpatient program at a psychiatric hospital for children and adolescents.

Population of Focus

Adolescents who have mental health and substance use issues.

Program Duration

Typically about 8 weeks, but varies depending on individual treatment goals and progress.

Related Resources

Program Website

Key Implementation Considerations

- Treatment practice selection: Treatment setting
- Coordination of care

Model Features and Elements

- Group, individual, and family therapy using manualized treatments, including CBT, MET/ CBT, and motivational interviewing (MI)
- Fully integrated multidisciplinary team including a child psychiatrist, clinical psychologists, nurses, and a master's level clinician
- Substance use monitoring, including youth self-report, parent report, and at least weekly urine toxicology tests
- Treatment fidelity assessed through:
  - Live supervision of group, individual, and family therapy sessions by clinical psychologists who specialize in this population and these treatment modalities
  - Supervising clinical psychologists reviewing recordings of individual and family therapy sessions (a minimum of 2 hours of group supervision and 30 minutes of individual supervision are conducted each week

THE WAVE CLINIC

The Wave Clinic at Bradley Hospital is an outpatient program serving adolescents with co- occurring mental health and substance use issues. It was developed in 2018 to provide continuity of care for youth who were stepping down from the hospital's Co-occurring Disorders Program, but also receives referrals from other IOPs or intensive in-home services, the court system, the school system, pediatric providers, and inpatient settings.

The clinic sees youth with a variety of internalizing and externalizing disorders who also misuse substances, most commonly alcohol and marijuana. Using evidence-based practices and a family-based approach, clinicians see youth once or twice weekly. Sessions may be individual, family, or parent-only, depending on need. Most treatment employs MET/CBT.

Clinicians monitor the youth's progress in meeting treatment goals using measures of behavior
and motivation to change and employ toxicology screening. As youth make progress, clinicians may titrate treatment (e.g., going from once weekly treatment to twice a month). To prepare for the youth's transition out of treatment, clinicians work with the youth and family to access recovery supports and develop a plan for if they experience symptoms that might require a return to treatment.

Lessons Learned

Take an integrated approach that employs comprehensive supports, based on individual needs

- Use evidence-based approaches with fidelity
- Ensure individuals do not "fall through the cracks" when transitioning from intensive outpatient services to less intensive services

Encompass: Integrated Mental Health/Substance Treatment

University of Colorado School of Medicine, Department of Psychiatry, Division of Addiction Science, Prevention and Treatment (Aurora, CO)

Encompass is an evidence-based, outpatient treatment program for youth and young adults with substance use disorders and co-occurring mental health issues. A clinical research team at the University of Colorado's School of Medicine created Encompass in 2010 and 2011. The program has expanded to other sites in Colorado, Indiana, and Kentucky.

The Encompass team treats individuals with cannabis and alcohol misuse who have co-occurring depression, anxiety, attention-deficit disorder, conduct disorder, and other mental health issues. They also treat nicotine addiction and vaping. Participants are referred by parents, schools, mental health clinics, primary care pediatric clinics, family medicine, adolescent medicine clinics, substance use treatment programs that do not have expertise in co-occurring disorders, juvenile justice, college/university mental health clinics, or self-referrals.

An estimated 2,500 youth and young adults have received the Encompass intervention across all sites in all states. Participants are aged 12 to 29 with an average age of 17. Most are male (75 percent); 62 percent are White, 23 percent are Black/African American, and 15 percent are other races.

Encompass uses MET/CBT along with contingency management (CM; a behavioral reinforcement technique) and pharmacotherapy to reduce substance use and psychiatric symptoms.

Treatment consists of 16 weekly, individual sessions in a broad range of treatment settings, including outpatient mental health settings, school-based settings, primary care, and telehealth. A clinician assesses substance use and mental health symptoms monthly to evaluate responses to treatment and works with a broad team to provide an individualized level of care. Pharmacotherapy may be incorporated after the first month if the co-occurring psychiatric symptom severity is not responding to MET/CBT alone.

Treatment Practice Implemented by the Program

Pharmacotherapy

Setting

Outpatient program located within the Department of Psychiatry outpatient clinic at University Hospital.

Population of Focus

Youth and young adults with substance use disorders and co-occurring mental health issues.

Program Duration

16 weeks

Related Resources Program Website Treatment manual Article

Key Implementation Considerations

- Treatment practice selection: Assessment, Fidelity
- Training and staffing
- Treatment engagement

The core treatment team meets regularly (weekly or monthly) and consists of master's level licensed clinical social workers, doctoral-level psychologists, a medical doctor (MD), a doctor of osteopathy (DO), and registered nurse practitioners (RNP) trained in the Encompass intervention. This team links with an MD, DO, or RNP familiar with the Encompass treatment model who can perform medication evaluations and prescribe medication as clinically indicated. The Encompass-affiliated MD/DO/RNP does not have to attend the regular team meetings; however, affiliated staff must be familiar with the Encompass model and clinical measures the team is tracking (e.g., Patient Health Questionnaire-9 [PHQ-9], Generalized Anxiety Disorder 7-item scale [GAD 7], Attention-Deficit/ Hyperactivity Disorder Rating Scale [ADHD-RS]) so they can monitor treatment response. They must also be aware of medications shown to be safe and

effective in non-abstinent youth with co-occurring disorders (based on randomized control trials).

Encompass therapists receive weekly case-driven clinical supervision in their first year, twice monthly clinical supervision in the second year, and monthly clinical supervision thereafter. The Encompass developer, Dr. Paula Riggs, and the Encompass consulting team lead clinical supervision activities. In the first year following training, Encompass therapists submit one digital audio recorded MET/CBT session fidelity/adherence review by the Encompass consulting team. Therapists who score below the fidelity/adherence threshold receive additional clinical supervision until they are in an acceptable rating range.

Model Features and Elements

- Semi-structured interview at baseline to identify co-occurring diagnoses
- Manual-driven MET/CBT in weekly individual sessions
- CM to reinforce abstinence, treatment adherence, and prosocial activities
- Pharmacotherapy provided as clinically indicated
- Validated tools to measure psychiatric symptoms at baseline and throughout treatment (e.g., PHQ-9 for depression, GAD-7 for anxiety)
- Weekly substance use monitoring (urine toxicology screening and timeline follow-back)

Findings and Outcomes

- Around 70 percent completion rate of the Encompass program
- Over 90 percent compliance with weekly MET/ CBT sessions
- Reductions in symptoms of psychiatric diagnoses using validated instruments
- Reductions in substance use using validated instruments

- Reduction in psychiatric symptoms often associated with reduced substance use and viceversa

Lessons Learned

- Understand that symptoms of a co-occurring mental disorder may be triggering substance use, and beattentive to these internal triggers
- Be thoughtful in medication use; Encompass focuses on teaching skills and coping strategiesassociated with internal triggers that are often symptoms of co-occurring mental disorders, so substance and psychiatric symptoms mayboth decline without the need for additionalpharmacotherapy
- Add CM to MET/CBT to increase treatmenteffectiveness

Native Connections

Seminole Tribe of Florida Health and Human Services, Center for Behavioral Health(Big Cypress Reservation, FL)

The Seminole Tribe of Florida's (STOF's) Health and Human Services' Center for Behavioral Health (CBH) provides a broad array of integrated medical and behavioralhealth services. The **STOF's Native Connections** is an outpatient initiative that aims to reduce and prevent suicidal behavior and substance use, reduce the impact of trauma, and promote mental

health among youth and young adults up to 24 years of age, using culturally- and trauma-informed treatment services. The initiative is funded by SAMHSA as part of its Native Connections 5-year grant program, which currently serves 148 grantees nationally, including STOF. STOF was awarded its grant in 2019.

The Big Cypress Reservation headquarters the program with clinical teams of child therapists, mental health counselors, and clinical supervisors operating in multiple locations across STOF CBH's catchment area including administrative offices in Hollywood, FL. The program has clinical teams on five STOF reservations – Big Cypress, Hollywood, Brighton, Immokalee, and Tampa.

STOF Native Connections clinicians use CBT, MET, MI, and Dialectical Behavior Therapy (DBT) to increase protective factors against substance use and suicide. In its work, the STOF Native Connections team coordinates closely with Tribal Members and community leaders.

Tribal members can access clinical staff 24 hours a day via an on-call system, enabling them to respond to mental health and substance use crises.

STOF CBH identifies youth and young adults who may benefit from the Native Connections program through direct outreach (both family/youth- and clinician-initiated), and existing referral partnerships with Tribal leaders, local law enforcement, emergency response, child welfare,

hospitals, and schools. STOF CBH receives referrals and triages them to appropriate treatment. Tribal members play critical roles in each stage of the referral, intake, and treatment

Treatment Practice Implemented by theProgram

Cognitive Behavioral Therapy (CBT)

Setting

Multiple (outpatient clinics and communitycenters, residential youth homes)

Population of Focus

Youth and young adults with, or at high-risk for, developing, mental health disorders and symptoms(including suicidality) and substance use

Program Duration

Varies depending on the needs of the individualand their family

Related Resources

Program Website

Key Implementation Considerations

- Treatment practice selection
- Funding
- Training and staffing
- Coordination of care
- Treatment engagement

process. The program leverages existing partnerships between Tribal Members and first responders to youth in crisis (i.e., emergency medical services, child welfare) to engage community leaders in discussions of treatment need,relevance, and cultural context.

As part of the pre- and early implementation process, STOF Native Connections staff worked closely with anadvisory board of Tribal Members to gather feedback on planned outreach approaches and therapeutic programming. Tribal Members expressed interest in additional training and focus on trauma and its impacts. As a result, STOF Native Connections clinical staff completed an online trauma-oriented therapy course offered

through the Indian Health Service and two additional trainings focusing on trauma-informed CBT and trauma's impact across the lifespan.

STOF Native Connections aims to serve 30 tribal youth each year. Treatment duration, as well as the type of clinical practices (CBT, MET, MI), is customized to meetthe needs of the individual and family. Youth and young adults served by the program present with a variety of mental health needs, including but not limited to acute and post-traumatic stress disorders, major depressive disorder, generalized anxiety disorder, oppositional defiance disorder, and conduct disorder

SAMHSA NATIVE CONNECTIONS GRANTS

Native Connections is a 5-year SAMHSA grant program that helps American Indian and AlaskaNative communities identify and address the behavioral health needs of Native youth. The Native Connections grant program supports grantees in:

- Reducing suicidal behavior and substanceuse among Native youth up to age 24
- Easing the impacts of substance use,mental illness, and trauma in tribal communities
- Supporting youth as they transition into adulthood

Model Features and Elements

- A doctoral level psychologist with training in CBT, MET, and SUD treatment leads theprogram's multi-site clinical operations
- Clinicians are on site at five reservations, including Big Cypress; staff include child therapists, mentalhealth counselors, and clinical supervisors
- The program maintains an advisory board of Tribal Members who provide feedback on program areas of focus and

cultural competence

- The program’s clinical staff complete additional training on trauma-oriented therapy

Findings and Outcomes

- The program’s grant was awarded in May 2019, and there were no measurable outcomes as of June 2020
- Much of the originally planned work has been paused or modified due to coronavirus (COVID-19)

Lessons Learned

- Keep trauma at the forefront of one’s mind when considering an adolescent or young adult’s clinical presentation
- Understand how trauma may contribute to and interact with an individual’s substance use and emotional and behavioral issues, and apply a trauma-informed approach to service delivery
- Leverage existing partnerships with other youth-serving clinicians, coordinate closely with tribal leaders, and deliver services in a culturally responsive manner

Seasons Certified Community Behavioral Health Clinic

Seasons Center for Behavioral Health (Spencer, IA)

Seasons Center for Behavioral Health (Seasons) is a nonprofit behavioral health center that has been serving children, youth, and adults in northwest Iowa for over 60 years. Seasons received a SAMHSA Certified Community Behavioral Health Clinic (CCBHC) Expansion grant in late 2018 and began enrolling participants in its CCHBC in early 2019. Through the CCBHC, participants receive wraparound care including care coordination, mental health and substance use therapy, psychiatric services, Assertive Community Treatment teams, peer family support, peer recovery support, psychiatric rehabilitation, health and wellness coaching, and mobile crisis.

Individuals presenting with co-occurring mental and substance use disorders connect with clinicians trained in treating individuals with co-occurring disorders.

There is one practitioner who is a certified alcohol/drug abuse counselor (CADC) and a licensed mental health counselor (LMHC); otherwise, care occurs between CADCs and LMHCs or licensed independent social workers. Typically, co-occurring treatment includes MI, CBT, Seeking Safety, and DBT. All clinicians are certified at the basic level of at least one evidence-based practice, such as MI, DBT, or Seeking Safety.

Seasons has served the community since 1959 and is well known, but as the CCBHC model is new to the community, the organization started marketing the new services provided by the CCBHC. Juvenile court, schools, parents, and churches often refer youth participants. Seasons serves a rural area that covers 2,000 square miles and nine counties. Most participants are White; 5 percent are Black/African American, 4 percent are American Indian, and 14 percent are Hispanic. Youth and young adult participants are 52 percent male.

The CCBHC serves youth with co-occurring disorders who are aged 13 and older, and as of March 2020, it was serving 317 youth. The CCBHC often sees youth with mental health issues related to attention-deficit/ hyperactivity disorder, anxiety, depression, autism spectrum disorder, or unspecified neurodevelopmental disorders, and substance use

involving nicotine, alcohol, marijuana, and methamphetamines. Clinicians use the Substance Abuse Subtle Screening Inventory Fourth Edition (SASSI-4) at intake and prior to discharge.

During treatment, symptoms are re-evaluated every 6 months through the Alcohol Use Disorders Identification Test (AUDIT) screen (as appropriate for the specific substance).

Model Features and Elements

- Integrated mental health, substance use, and health/wellness services provided through CCBHC
- Case management
- Peer support
- Individual therapy with clinician specializing in co-occurring disorders treatment

SAMHSA CCBHC GRANTS

CCBHCs provide person- and family-centered integrated services. The purpose of SAMHSA's CCBHC Expansion grant program is to increase access to and improve the quality of community mental and substance use disorder treatment services. CCBHCs provide comprehensive 24/7 access to community-based mental and substance use disorder services, including crisis services, treatment of co-occurring disorders, and

Findings and Outcomes

- Swifter reduction of symptom intensity
- Fewer calls from schools to the crisis team
- Less extreme and fewer events requiring crisis team response at the individual level.

Lessons Learned

- Be consistent in outreach to and communication with other organizations serving the population (e.g., schools, law enforcement, hospitals, YMCAs)
- Recognize that stigma is still a significant barrier to care among some populations; be patient with those who may not be able to explain why they need help or what they are experiencing.

Treatment for Healthy Alternatives

Nationwide Children's Hospital (Columbus, OH)

Treatment Practice Implemented by theProgram

Cognitive Behavioral Therapy (CBT)

Setting

Pediatric hospital, family home

Population of Focus

Youth and young adults with substance use andco-occurring mental health issues

Program Duration

4 to 6 months in Integrated Co-occurringTreatment

Related Resources

Program Website

Key Implementation Considerations

- Funding
- Training and staffing
- Coordination of care
- Treatment engagement

Nationwide Children's Hospital is the second largest pediatric hospital in the United States, with more than 1.5 million patient visits each year. A component of Nationwide Children's Hospital's behavioral health specialty is the Treatment for Healthy Alternatives Program, which was established in 2010. This program serves youth and young adults from Franklin County, OH, with substance use and co-occurring mental health issues through multiple levels of care. The hospital, other clinicians, parents, or the courts usually refer youth. Patients have included families from the full range of socio-economic backgrounds and nearly every neighborhood in the area. In 2019, slightly more than half of patients were male (55 percent). Seventy-five percent of patients were White, 13 percent were Black/ African American, and 5 percent were bi-racial or multi-racial. In addition, 8 percent of patients reported being Latino or Hispanic.

Treatment for Healthy Alternatives offers an intensive home-based program that employs an Integrated Co- occurring Treatment (ICT) approach to provide services, and focuses on youth and young adults with SUD and a co-occurring internalizing mental health issue

(i.e., depression or anxiety). Cannabis is the most common substance use diagnosis. Major depressive disorder has been the most prevalent co-occurring mental health condition among this population, but recently there has been an increase in anxiety disorders and trauma. Some youth and young adults also have oppositional defiant disorder or conduct disorder in addition to an internalizing issue.

In ICT, each clinician spends 3 to 5 hours per week working with the youth, family, and/or parents in the home. Clinicians use MI throughout treatment and often employ CBT. The particular mix of individual, family, and/or parent treatment is individualized to each family's needs. Families work with the same clinician throughout their time in the program, which is 4 to 6 months.

Additionally, clinicians may provide case management, and depending on family needs, may attend court with the family, coordinate with the school, or identify additional

LINKAGE TO OTHER LEVELS OF CARE

Treatment for Healthy Alternatives also provides outpatient care, which was added in 2017 to facilitate step- down from intensive home-based service. Many youth transition between these levels of care. A co-occurring diagnosis is not required to receive outpatient services.

More recently, the program added a clinician who partners with the medication assisted treatment (MAT) program within adolescent medicine. This way, youth or young adults receiving MAT may receive support from a behavioral health clinician or be linked with the outpatient program.

resources (e.g., help a caregiver get new glasses). Youth and families also have access to a 24/7 on-call crisis team.

Every clinician at the hospital receives two days of CBT training and one day of MI training during new hire orientation and may opt to participate in additional CBT and MI trainings. In addition, Treatment for Healthy Alternatives clinicians complete quarterly trainings, equating to a minimum of 16 hours per year, specific to treating youth and young adults with substance use and co-occurring mental health issues. ICT clinicians complete a 2-day training on intensive home-based treatment and participate in fidelity assessments administered by the Case Western Reserve University's Center for Innovative Practices. ICT also includes weekly consultation; each clinician presents their most challenging case to the group for discussion.

The program began under a federal grant (Bureau of Justice Assistance Second Chance grant program) focused on youth on parole who were returning home from an inpatient treatment or juvenile justice facility. After grant completion, the program secured county and private funding. The program began serving youth with juvenile justice involvement more broadly, and now serve any youth in the county needing this level of care.

Model Features and Elements

- A mix of individual, family, and/or parent treatment for 3 to 5 hours
- Clinicians provide treatment, case management, and other support, as needed
- One clinician stays with the family for the duration of treatment
- Program provides a direct link between ICT and outpatient

Findings and Outcomes

- Reduced substance use
- Increased safety

- Stabilization (e.g., fewer hospitalizations, improved school-related outcomes) .

Lessons Learned

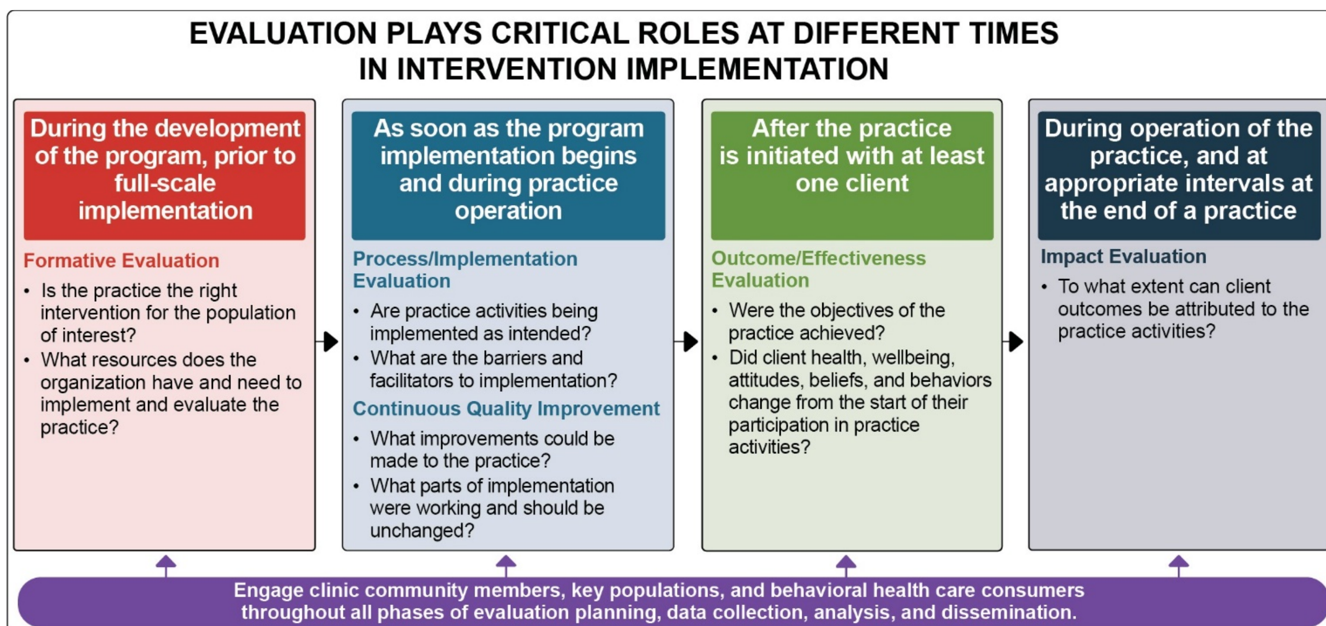
- Take a trauma-informed approach; screen and assess for trauma, recognize that many clients have experienced trauma, and consider the impact of trauma on their behaviors and symptoms and in response to clients or families
- Be flexible; for example, if the family is suffering, it may be appropriate to focus on parents/caregivers for a time, or to employ DBT
- Manage waitlists appropriately; when people are ready for treatment, they are ready right now

Chapter 5: Resources for Evaluation and Quality Improvement

Evaluating a practice or program can provide information about how well a practice has been implemented, what is and what is not working in a program, and how a program or practice benefits clients.

This information can be helpful in securing funding by providing evidence of program effectiveness. In addition, stakeholders can use information gathered through evaluation to encourage implementation of that practice in other programs or communities.

This chapter provides an overview of approaches to evaluate both the implementation and effectiveness of practices that are designed to treat youth and young adults with serious emotional disturbances (SED)/serious mental illnesses (SMI) SED/SMI and substance use or substance use disorders (SUD). The chapter also includes information on implementing a continuous quality improvement (CQI) process. The U.S. Department of Health and Human Services (HHS) defines CQI as, “the systematic process of identifying, describing, and analyzing strengths and problems and then testing, implementing, learning from, and revising solutions.” CQI is an essential process for successfully realizing a practice. Finally, the chapter concludes with specific evaluation resources, including some suggested measures for potential outcomes to track.



Types of Evaluations

There are many stages or types of evaluation: before starting a program to determine its feasibility (***formative evaluation*** *or* ***evaluability assessment***), during implementation (***process evaluation*** *and* ***CQI***), and after the intervention has been delivered to at least

one client (outcome and impact evaluations). Each type of evaluation is necessary to assess a practice's or program's effectiveness and fidelity. Fidelity is the extentto which a clinician adheres to the core components of the program or practice. The graphic below illustrates these evaluation types in greater detail.

Preparing to Collect Data

The following steps can help clinics and clinicians

prepare to collect and analyze data:

Determine if the purpose of the data collection is evaluation or research. Qualitative and quantitative evaluation and research enables managers and clinicians to learn from clients and obtain the perspective of those with lived experiences. Both evaluation and research

can also involve collecting data from staff who deliver the new treatment to obtain their perspective on facilitators and challenges to practice implementation.

Qualitative and quantitative data are complementary; each provides critical insightinto how the intervention is operating and achieving the intended objectives.

- **Qualitative data** include any non- numeric, text-based information, such as verbal, visual, or written data. Qualitative data collection methods include interviews, focus groups, clinicalobservations, gathering data from documents and images, and open-endedsurvey questions and polling responses.
- **Quantitative data** are numeric data that can be processed by mathematicalor statistical analysis. Quantitative data collection includes close-ended survey questions and polling responses,services and utilization data, and claims and encounter data.

Qualitative and quantitative research enables managers and clinicians to learn from clients and obtain the perspective of those with livedexperiences.

Research can also involve collecting data from staff who deliver treatment using the new practice to obtain their perspective on facilitatorsand challenges to practice implementation.

USING CONTINUOUS QUALITY IMPROVEMENT (CQI)TO IMPROVE PROGRAM IMPLEMENTATION

What is CQI?

CQI involve is a systematic process of assessing program or practice application and short-term outcomes and then involving program staff in identifying and making improvements in service delivery and organizational systems to achieve better treatment outcomes. CQI helps assess practice fidelity, the degree to which a program delivers a practice as intended.

CQI differs from process evaluation in that it involves quick assessment of program performance, timely identification of problems and potential solutions, and implementation of small improvements to enhance treatment quality. CQI is usually conducted by internal staff. Process evaluation involves long-term assessment and is best conducted by external evaluator.

The Network for Improvement of Addiction Treatment (NIATx), a project originally funded by SAMHSA's Center for Substance Abuse Treatment (CSAT), offer tools to conduct CQI and improve services in substance use disorder treatment settings, NIATx is based on the principle of program improvement through a series of small changes, tested, and applied one at a time, that in the end have cumulative effect.

The Institute for Healthcare Improvement's PDSA Model for Improvement identifies a scientific method for testing small-scale changes and using results in an action-oriented, cyclical manner. The stages are: planning it (Plan), trying it (Do), observing the results (Study), and acting on what is learned (Act).

Why use CQI?

CQI takes a broader look at the systems in which programs or practices operate. Because of the pivotal role it plays in performance management, organizations treating individuals with SED/SMI and co-occurring substance use and SUD are encouraged to implement CQI procedures.

What are the steps involved in CQI?

Although steps in the CQI process may vary based on objectives, typical CQI steps are:

- Identify a program or practice issue needing improvement and a target improvement goal
- Analyze the issue and its root causes
- Develop an action plan to correct the root causes of the problem, including specific actions.
- Implement the actions in the action plan.
- Review the results to confirm that the issue and its root causes have been addressed and short-term and long-0term treatment outcomes have improved.
- Repeat these steps to identify and address other issues as they arise.

Institute for Healthcare Improvement. (n.d.). *Science of Improvement: Testing Changes.* http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx

New Jersey Department of Children and Families. (n.d.). *CQI Framework: Five Stages of Continuous Quality Improvement.* https://www.nj.gov/dcf/about/divisions/opma/CQI%20framework.pdf

NIATx National Program Office. (n.d.). *What is NIATx? University of Wisconsin-Madison.* https://www.niatx.net/what-is-niatx/

Office of Adolescent Health. (n.d.). *Continuous Quality Improvement, Part 1: Basics for Pregnancy Assistance Fund Programs*.
U.S. Department of Health & Human Services. https://www.hhs.gov/ash/oah/sites/default/files/cqi-intro.pdf

Program evaluation supports program improvement. Evaluation of programs implemented in clinical settings contributes to generalizable knowledge by implementing study protocols and procedures approved by Institutional Review Boards (IRB) and that adhere to human subjects research protections. When designing program evaluations, researchers should consult their institutions to ensure they are following appropriate data collection procedures.

- Identify team members to conduct evaluation **activities.** Regardless of the type of evaluation conducted, collecting and analyzing data takes time. Programs need to identify team members who can conduct evaluation activities and securefunding to protect their time for evaluation trainings, data collection, and data analysis.

Determine your process and outcomes of interest to determine impact and effect. A challenging step in implementing new practicesis to determine whether the practice has yieldeddesired outcomes. An outcome is the change a program hopes to accomplish through the enactment of a practice. Evaluations and CQI efforts use a variety of data to assess the impactof interventions.

Process and Outcome Measures to Determine Impacts and Effects

While selecting a practice or program, organizations should consider evaluation activities. As practices do not occur in isolation, consider whether the impact of one practice or a combination of practices is effective for the population. The table below describes variables program managers, clinicians, and others may use to evaluate practices identified in Chapter 2. Many of these short- and intermediate-term outcomes may be tracked atbaseline and throughout the practice or program durationthrough electronic health records or qualitative methods.Administrative and survey data may provide longer-term outcomes.

Evaluations Include a Variety Process and Outcomes Measures

Illustrative Measure	Illustrative Indicators	Illustrative Data Sources
Process Measures		
Treatment engagements	• Extent of client engagement in the treatment	• Client self-report • Social service agency electronic data sources
Treatment retention	• Number of treatment sessions attended	• Attendance/Administrative data • Social service agency electronic data sources
Short-term and Intermediate Outcome Measures		
Reduce use of substances (short- and long-term)	• Amount of use • Ever used • Frequency of use • Usage during specified period (e.g., past 30 days, past year)	• Addiction Severity Index (ASI) • Client self-report • CRAFFT Interview • Columbia Impairment Scale (CIS) • Lab data (i.e. urine screen) • Maudsley Addiction Profile (MAP) • Substance Problem Scale (SPS) • Teen Addiction Severity Index (TASI) • Timeline Follow-back Method Assessment (TLFB)
Reduction in risky behavior	• Attendance in extracurricular or athletic activities • Attendance in school	• Addiction Severity Index (ASI) • Client self-report • Disruptive Behavior Disorder

	• Behavioral conduct • Curfew compliance • Effectiveness of parenting practices • Reduced used of substances	Rating Scale (DBDRS) • Maudsley Addiction Profile (MAP) • Parent/guardian observation • Parent Practices Questionnaire (PPQ) • School administrative records
Improvements in behavioral, psychiatric health, and emotional functioning	• Attainment of client's personal goals • Decrease in legal involvement • Improved daily functioning (e.g., hygiene, making meals) • Increased enjoyment of activities or events • Improved sleep • Improved socialization • Participation in rehabilitation program, school, or employment • Participation in medical appointments and care • Remission of mental disorder	• Client self-report • Beck Depression Inventory (BDI-II) • Child PTSD Symptom Scale (CPSS) • Employment administrative data • Hamilton Rating Scale for Depression (HAM-D-27) • Hospital and medical facility administrative data • Justice system administrative data • Maudsley Addiction Profile (MAP) • Parent/guardian/friend observation • Patient Health Questionnaire (PHQ-9) • Quick Inventory of Depressive

	• Reduction or absence of suicidal ideation and self-harm • Reduction in feelings of helplessness and hopelessness • Stable relationships/social functioning	Symptomatology(QIDS) and Quick Inventory of Depressive Symptomatology – Adolescent (QIDS-A) • School administrative data • Strengths and Difficulties Questionnaire • Youth Self-Report (YSR)- Internalizing Behaviorand Externalizing Behavior subscales
Improvements in educational/professional achievement and attainment	• Attainment of client's personal goalsfor education and professional development • School achievement • Vocational training	• Client self-report • Degree/certificate attainment • Employment status • Grade promotion/retention • Graduation or dropout status • Overall grade point averages • Standardized test scores
Long-term Outcomes Measures		
Reduced prevalence of substance use	• Prevalence of substance use amongyouth and adults	• Large scale national surveys • National databases
Reduction in mental health issues in individuals with substance use disorder	Rate of hospitalizations related to: • Completed suicides • Legal involvement • Mental health and	• Client self-report • Hospital and medical facility administrative data • Justice system administrative data

	substance use disorders • Substance overdoses	
Reduction in co- occurring substance usedisorder-related crime	Rates of: • Impaired driving • Possession of substances • Property crimes • Public impairment • Underage smoking or drinking Violent crimes	• Client self-report • Justice system administrative data

Evaluation Resources

Evaluating Programs

- A Framework for Program Evaluation from the Program Performance and Evaluation Office at the Centers for Disease Control and Prevention summarizes essential elements of program evaluation.
- The Community Toolbox from Center for Community Health and Development at the University of Kansas includes a step-by- step guide to developing an evaluation of a community program, specific tools, and examples.

Quality Improvement and Continuous Performance Monitoring

- Institute for Healthcare Improvement's Quality Improvement Essentials Toolkit includes the tools and templates to launch a quality improvement project and manage performance improvement.

Resources for Evaluating Practices Involving Youth and Young Adults

- Cognitive Behavioral Therapy (CBT): The Beck Institute for Cognitive Behavior Therapy provides resources on How to Know if Therapy is Working and an assessment on Clinical Measures in CBT – A Hassle or a Help?
- Motivational Enhancement Therapy (MET)/ CBT: A National Institute on Drug Abuse funded study entitled Development and Initial Validation of a Client-Rated MET-CBT Adherence Measure details its client-rated MET/CBT fidelity adherence measure.
- Pharmacotherapy: The Children's Aggression Scale (CAS) was rated moderate in its psychometric properties for evaluating efficacy of pharmacotherapy interventions in youth.

- Family-Based Therapies: The Family Therapy Fidelity and Adherence Check (FBT-FACT) showed moderate to strong inter-rater agreement for assessing fidelity of family-based therapy in a youth population.

Appendix: Evidence Review Methodology

The authors followed a rigorous, systematic evidence review process in the development of this guide. This appendix provides an overview of the evidence review methodology used to identify the ratings for the practices included in the guide:

- Cognitive Behavioral Therapy
- Multidimensional Family Therapy
- Pharmacotherapy

Reviewers, in coordination with SAMHSA and experts, conducted a four-step process to select practices, identify related studies, review and rate studies, and identify practice ratings.

Step 1: Practice Selection

The authors identified these three practices after a review of the literature and in consultation with experts. In an effort to include interventions that would be most useful, eligible practices were required to meet the following criteria for evidence review:

- Be clearly defined and replicable
- Address the target outcome of reducing stimulant misuse
- Be currently in use
- Have studies of their effectiveness
- Have accessible implementation and fidelity supports

At the conclusion of this step, SAMHSA and the guide's Expert Panel reviewed the proposed practices identified by the authors and agreed on three for inclusion in the evidence review and rating process.

Step 2: Study Identification

Once the practices were selected, the reviewers conducted a comprehensive review of published research on these practices to identify studies of the selected

practices. This review only included studies from eligible sources (i.e., peer reviewed journals and government reports) that avoid clear conflicts of interest. The reviewers documented all potential studies identified through the literature search.

The studies identified in the literature search varied in type and rigor, so the reviewers assessed them further for inclusion in the evidence review. To be eligible for review and study rating, research studies had to:

- Employ a randomized or quasi-experimental design, or
- Be a single sample pre-post design or an epidemiological study with a strong counterfactual—a study that analyzes what would have happened in the absence of the intervention.

Literature reviews, descriptive studies, implementation studies, and meta-analyses were not included in the review, but were documented to provide context and identify implementation supports for the practices.

Additionally, to be eligible for further review and rating, studies had to:

- Be published or prepared in or after 2000
- Be a publicly available peer-reviewed or research report
- Be available in English
- Include at least one eligible outcome related to the topic
- Have a comparison/control group that is treatment as usual or no/minimal intervention if using a randomized experimental or quasi- experimental designs

Step 3: Study Review and Rating

Next, trained reviewers assessed each study to ensure the methodology was rigorous and therefore could demonstrate causation between the practice and

the identified outcomes. Reviewers reviewed and
documented each study to ensure that:

- Experimental and comparison groups were statistically equivalent, with the only difference being that participants in the experimental group received the intervention and those in the comparison group received treatment as usual orno/minimal intervention
- For randomized experiments with high attritionand for quasi-experimental designs, baseline equivalence was established between the treatment and comparison groups
- For randomized experiments, randomization was not compromised. For example, ensuring that reassignment of treatment status, usually made to balance the distribution of background variables between treatment and control groups,did not occur.
- Study did not have any confounding factors (factors that affect the outcome but are not accounted for by the study).
- Missing data were addressed appropriately
  - Imputation based on surrounding cases wasconsidered valid
  - Complete case analysis was considered valid and accounted for as attrition
  - Using model with dummy for missing as acovariate was considered valid
  - Assuming all missing data points are eitherpositive or negative was not considered valid
  - Regression-based imputation was considered valid, mean imputation was not considered valid
- Outcome measures were reliable, valid, and collected consistently from all participants
- Valid statistical models were used to estimateimpacts
- Practice demonstrated improved outcomes

Based on the study design and these study characteristics, reviewers **gave each study a rating** for causal impact. Reviewers used the following scoring metric for each study based on the eight factors above to determine if a study is rated:

High support of causal evidence

Moderate support of causal evidence

Low support of causal evidence

Only randomized controlled trials, quasi-experimental designs, and epidemiological studies with a strong comparison were eligible to receive a high or moderate study rating.

Step 4: Practice Rating

After all studies for a practice were assessed for these criteria, the reviewers **gave each practice a rating** based on the number of studies with strong, moderate, or emerging support of causal impact. Causal impact is evidence demonstrating that an intervention causes, or is responsible for, the outcome measured in the study's sample population. The practice was placed into one of the following categories based on the level of causal evidence of its studies:

- **Strong Evidence**: Causal impact demonstrated by at least **two** randomized controlled trials, quasi-experimental designs, or epidemiological studies with a high or moderate rating.
- **Moderate Evidence**: Causal impact demonstrated by at least **one** randomized controlled trial, quasi-experimental design, or epidemiological study with a high or moderate rating.
- **Emerging Evidence**: No study received a high or a moderate rating. The practice may have been evaluated with less rigorous studies (e.g., pre-post designs) that demonstrate an association between the practice and positive outcomes, but additional studies are needed to establish causal impact.

The four-step process described above resulted in identification and rating of three practices. The rating given to each practice is intended to inform decision making about

adoption of new practices or clinical orsystem enhancements that will improve outcomes foraffected individuals.