

EVIDENCE-BASED RESOURCE GUIDE SERIES

First-Episode Psychosis and Co-Occurring Substance Use Disorders



Acknowledgments

This report was prepared for the Substance Abuse and Mental Health Services Administration (SAMHSA) under contract number HHSS2832017000651I/HHSS28342001T with SAMHSA, U.S. Department of Health and Human Services (HHS). Thomas Clarke served as contracting officer representative.

Disclaimer

The views, opinions, and content of this publication are those of the authors and do not necessarily reflect the views, opinions, or policies of SAMHSA. Nothing in this document constitutes a direct or indirect endorsement by SAMHSA of any non-federal entity's products, services, or policies, and any reference to non-federal entity's products, services, or policies should not be construed as such.

Public Domain Notice

All material appearing in this publication is in the public domain and may be reproduced or copied without permission from SAMHSA. Citation of the source is appreciated. However, this publication may not be reproduced or distributed for a fee without the specific, written authorization of the Office of Communications, SAMHSA.

Electronic Access

This publication may be downloaded from <http://store.samhsa.gov>

Recommended Citation

Substance Abuse and Mental Health Services Administration: First-Episode Psychosis and Co-Occurring Substance Use Disorders. Publication No. PEP19-PL-Guide-3 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2019.

Originating Office

National Mental Health and Substance Use Policy Laboratory, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857, Publication No. PEP19-PL-Guide-3.

Nondiscrimination Notice

SAMHSA complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.

SAMHSA cumple con las leyes federales de derechos civiles aplicables y no discrimina por motivos de raza, color, nacionalidad, edad.

Evidence-Based Resource Guide

Series Overview

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

Individuals in treatment and recovery vary in many ways. They experience different mental health and substance use conditions, may have co-occurring disorders, live in diverse parts of the country, and challenge a variety of socio-economic factors that help or hinder recovery. These challenges are further complicated for individuals who are seeking help for mental health or substance use conditions but have limited access to effective services. All these factors bring complexities to evaluating the effectiveness of services, treatments, and supports for mental and substance use disorders.

Despite variations, *substantial evidence is available* to inform the types of services, treatments, and supports that reduce substance use, reduce severity of symptoms of mental illness, and improve individuals' quality of life. Communities are eager to take advantage of what has been learned to help individuals in need.

The Evidence-Based Resource Guide Series is a comprehensive and modular set of resources intended to support health care providers, health care system

administrators, and community members to meet the needs of individuals at risk for, experiencing, or recovering from addictions and mental illness.

An important area of concern for SAMHSA is promoting coordinated interventions to address first-episode psychosis and co-occurring substance misuse and substance use disorders among young adults. This guide will review the scientific literature, examine emerging and best practices, determine key components of peer-reviewed models, and identify challenges and gaps in implementation.

Each guide in the series was developed through input from an expert panel made up of federal, state, and non-governmental participants. The expert panel provided input based on their knowledge of health care systems, implementation, evidence-based practices, provision of services, and policies that foster change.

Panels included a unique group of accomplished scientists, providers, administrators from provider and community organizations, federal and state policy makers, and persons with lived experience.

One Piece of a Multipronged Approach

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. Users are encouraged to review the [SAMHSA website](#) for additional tools and technical assistance opportunities.

Content of the Guide

This guide contains a foreword and five chapters. The chapters are modular and do not need to be read in order. Each chapter is designed to be brief and accessible to health care providers, health care system administrators, community members, and others working to meet the needs of individuals at risk for, experiencing, or recovering from a substance use disorder and/or mental illness. The goal of this guide is to review the literature on treating substance misuse and substance use disorders in the context of first-episode psychosis, distill the research into recommendations for practice, and provide examples of the ways that these recommendations can be implemented by first-episode psychosis treatment programs.

FW Evidence-Based Resource Guide Series Overview

Introduction to the series.

1 Issue Brief

Overview of what is happening in the field. This chapter covers challenges to implementing programs. It provides descriptions of approaches being used in the field.

2 What Research Tells Us

Current evidence on effectiveness of programs and practices to address first-episode psychosis and co-occurring substance use disorders.

3 Examples of Effective Coordinated Specialty Care Program Models

Sample of Coordinated Specialty Care program models that use evidence-based practices to address first-episode psychosis and co-occurring substance use disorders.

4 Guidance for Selecting and Implementing Evidence-Based Practices and Programs

Practical information to consider when selecting and implementing programs and practices to address first-episode psychosis and co-occurring substance use disorders.

5 Resources for Implementation, Evaluation, and Quality Improvement

Guidance and resources for implementing evidence-based programs and practices, monitoring outcomes, and improving quality.

Focus of the Guide

The transition to adulthood can be a stressful process for young adults as they become more self-sufficient and face important life decisions that can shape their futures. The transition to adulthood can be especially challenging for young people who experience an emerging serious mental illness such as first-episode psychosis and who have a co-occurring substance use condition. When first-episode psychosis and substance misuse occur together, outcomes tend to be poorer in both the short and long term.

For young people experiencing first-episode psychosis, reducing or stopping substance misuse yields significant improvements in psychotic symptoms, depressive symptoms, and the young person's ability to lead a meaningful life. Reducing or stopping substance use early in the experience of psychosis also predicts better long-term outcomes.

Coordinated Specialty Care (CSC) is an integrated approach in which multi-component services are provided by clinicians with training and experience in working with young adults with first-episode psychosis and their families. This collaborative approach respects the autonomy and expertise of young people as part of the treatment process and allows young people and their families to feel better, gain hope for the future, and move towards recovery. CSC can support interventions to address substance misuse and substance use disorders that are provided alongside services for first-episode psychosis.

ISSUE BRIEF

First-Episode Psychosis and Co-Occurring Substance Use Disorders



Background

In the United States, the transition to adulthood begins in the late teenage years and continues through the mid- to late-20s. This process can be stressful for young people, given that this is a time when they are expected to become more self-sufficient and make important decisions that can shape their futures. Many live on their own for the first time, pursue educational goals, start their careers, and enter serious relationships.¹ These challenges can be much more difficult to navigate in the context of an emerging serious mental illness, such as first-episode psychosis, particularly when a co-occurring substance use disorder is also present.

What is First-Episode Psychosis?

Psychosis refers to a condition that makes it difficult for an individual to differentiate what is real and what is not. When people experience psychosis, their thoughts and perceptions are disrupted. They may perceive things that others do not or hold strong beliefs about things that are not true. Although psychosis can be experienced at any age, symptoms most commonly begin between the ages of 16 and 30.

Although the specific definition varies across clinical and research settings, **first-episode psychosis** is generally regarded as the early period (up to five years) after the onset of psychotic symptoms.² In many cases, first-episode psychosis impacts young people just at the time when they are preparing for and establishing autonomy as adults.³

Psychosis

A condition that disrupts a person's thoughts and perceptions and makes it difficult for an individual to differentiate between what is real and what is not.⁴ Symptoms of psychosis may include:

- Delusions (false beliefs)
- Hallucinations (seeing or hearing things that others do not see or hear)
- Incoherent speech
- Memory problems
- Trouble thinking clearly or concentrating
- Disturbed thoughts or perceptions
- Difficulty understanding what is real
- Poor executive functioning (the ability to use information to make decisions)
- Behavior that is inappropriate for the situation

Disorders in which psychosis may occur

Examples of disorders with psychosis include:

- Schizophrenia
- Schizoaffective disorder
- Schizophreniform disorder
- Brief psychotic disorder
- Delusional disorder

Other disorders, such as major depression or bipolar disorder, may include psychosis as a severe secondary symptom.



The first experience of psychosis can be a time of fear, stress, and uncertainty for young people and their families. Because of the stigma associated with mental illness, many young people and their families find themselves alone and do not know where to find help or support.

During this stressful time, young people may also experience depression, sleep disruptions, anxiety, and isolation from others. Many young people have trouble at school or work because it becomes difficult to concentrate and complete assigned tasks. School systems and workplaces may also lack the capacity to support or accommodate young people with psychosis, which can limit their participation in education and employment.

Young people with first-episode psychosis may have difficulty maintaining relationships with family and friends because they no longer feel safe going out or engaging in social activities. Family members and friends may not know what psychotic symptoms are or how they can help. Most families will not have much information about psychosis, so the path towards correct diagnosis and appropriate treatment can be long and difficult. The longer symptoms go untreated, the greater the risk of additional challenges, such as hospitalization or legal problems.^{5,6}

Young people in the United States typically experience symptoms of psychosis for more than a year before receiving treatment. The time between first experiencing psychotic symptoms and the beginning of appropriate treatment is referred to as the **duration of untreated psychosis**. It is important to reduce the duration of untreated psychosis because research shows that the earlier young people find and engage in effective treatment, the sooner they may feel better and resume activities and goals that are important to them.⁶⁻⁹ The shorter the duration of untreated psychosis, the greater the likelihood that young adults will experience positive outcomes.^{10, 11}

What Are Substance Misuse and Substance Use Disorders?

There are different ways that people can be affected by substance use. Experimentation with substances and recreational substance use is common among young adults,^{12,13} and some substance use – such as infrequent or moderate drinking – is practiced widely and does not cause problems for most people. In contrast, **substance misuse** refers to patterns of drinking or drug use that confer higher risk for negative consequences.

Binge drinking, defined as four drinks for women or five drinks for men over approximately 2 hours (bringing blood alcohol concentration to 0.08 g/dL¹⁴), is an example of substance misuse that is associated with increased risk of health, interpersonal, and cognitive problems in both the short and long terms.¹⁵⁻¹⁷ Regular marijuana (cannabis) is another example of substance misuse that can increase one's risk for health problems and cognitive impairments.¹⁸

For some, substance misuse can develop into a **substance use disorder**. Substance use disorders can include the misuse of a variety of drugs including alcohol, cannabis, cocaine, heroin, hallucinogens, inhalants, opioids, prescription pain relievers, tranquilizers, stimulants, and sedatives.¹⁹ Individuals often experience the negative results of substance use disorders over time as their ability to function declines.²⁷

A **Substance Use Disorder** is defined as continued and frequent substance use despite experiencing a range of negative consequences, including using the substance in larger amounts over time, unsuccessful attempts to cut down or stop using, spending a lot of time engaged in substance use or recovering from its effects, and giving up important social, occupational, or recreational activities because of substance use.

Research studies have investigated the impacts of specific substances, especially alcohol, cannabis, and tobacco, on psychosis symptoms and other health and treatment outcomes among people experiencing first-episode psychosis.

- Alcohol use is related to greater non-adherence to medication, lower quality of life, and reduced social functioning.^{20, 21}
- Research shows a connection between cannabis use and psychosis onset for some young adults.²² While regular cannabis use often predates the onset of psychosis,²³ young adults with first-episode psychosis who continue to use cannabis over time are more likely to experience significantly poorer outcomes than those who either have never used cannabis or those who used cannabis but stopped after engaging in treatment. For these reasons, cannabis use in particular is a target of treatment in first-episode psychosis.²⁴⁻²⁶
- Tobacco use is associated with cardiometabolic problems among young adults with first episode psychosis and thus is also an important treatment target.²⁷



Among young people aged 18-25 in the United States:

Approximately

15.1%

had a substance use disorder in 2016¹⁹

Of these, about

6.1%

had a co-occurring mental illness and a substance use disorder¹⁹

and an estimated

2.1%

had a co-occurring *serious* mental illness and a substance use disorder in 2016¹⁹

13–51%

of young people who have first-episode psychosis have a co-occurring substance use disorder at the start of treatment for psychosis^{20, 28-31}

First-Episode Psychosis and Co-Occurring Substance Misuse or Substance Use Disorders

Determining prevalence rates of substance misuse and substance use disorders in young adults experiencing first-episode psychosis is challenging for a number of reasons:

- Many studies report prevalence rates for both **substance use** and **substance use disorder** without carefully separating the two;
- Studies differ in whether they report **current** substance use or disorder or **lifetime** substance use or disorder;
- Studies assess substance use differently, in that some use structured diagnostic interviews and others use checklists or less rigorous measures; and
- The sample can vary across studies in that some include clients who are entering mental health treatment, while others include clients who have been in treatment for longer periods of time.

As a result of these methodological differences, we see wide variability in prevalence rates of substance use and disorder in young adults with first-episode psychosis.

- **Current substance use** is defined as recent use, generally in the last month
- **Current substance use disorder** is defined as meeting diagnostic criteria during the last 3 months
- **Lifetime substance use** is defined as ever using a substance
- **Lifetime substance use disorder** is defined as meeting diagnostic criteria during any 12-month period other than the last 3 months

Despite these methodological issues, some conclusions can be drawn from the research literature. **First, most young adults with first-episode psychosis have tried or used cannabis, alcohol, or tobacco at some point in their lives.**

Studies have found that 60–80 percent of young adults with first-episode psychosis report using cannabis, 88 percent report using alcohol, and 70 percent report using tobacco at some point in their lives.^{20, 25, 28, 32–34}

These rates are higher but still somewhat in line with young adults in the general population (cannabis use: 61 percent; alcohol use: 86.3 percent).³⁵

Second, fewer but still many young adults with first-episode psychosis report use of cannabis, alcohol, and tobacco at entry to first-episode psychosis treatment.

Specifically, 24–61 percent of individuals report current or recent cannabis use when entering treatment, 28–46 percent report current alcohol use, and 40–60 percent report current tobacco use.^{27, 36, 37}

Third, lifetime alcohol and cannabis use disorders are fairly common among young adults with first-episode psychosis.

Research consistently finds about one-third of young adults with first-episode psychosis (28–37 percent) meet criteria for lifetime cannabis use disorder and approximately 20–53 percent meet criteria for lifetime alcohol use disorder.^{10, 25, 26, 29, 32, 38} These rates are higher than what is found among young adults in the general population (lifetime drug use disorder: 14.2 percent).³⁹

Fourth, use of other substances such as cocaine, opioids, other stimulants, and hallucinogens has been less widely studied, but across samples, rates of use and disorder appear to be much lower than those for cannabis, alcohol, and tobacco.⁴⁰

One study of young adults with first-episode psychosis found that 20 percent of the sample reported using cocaine and 29 percent reported using hallucinogens³² at some point in their lives. Stimulant use disorder has been found in 2–16 percent of young adults with first-episode psychosis, depending on the sample.^{10, 26} Other research has found low rates of lifetime opioid (3 percent), cocaine (5 percent), and hallucinogen use disorders (5 percent).¹⁰

For young adults experiencing first-episode psychosis, having co-occurring substance misuse or a substance use disorder makes recovery more challenging. Young people who experience both first-episode psychosis and a substance use disorder are at particularly high risk for a more complicated course of illness,⁴¹

including recurring episodes of psychosis, greater risk for later physical health problems, and a greater likelihood of future disability.^{32, 42–44} Research also shows that experiencing first-episode psychosis together with a substance use disorder is associated with a greater number of hospitalizations, higher rates of dropout from treatment, a greater degree of psychotic symptoms, more medical issues, and greater risk of homelessness.^{42, 45–50}

For example, one study found that young people who continued to use cannabis after a first episode of psychosis were more likely to have relapses of psychosis, even if they were reliably taking antipsychotic medications.⁵¹ Findings like these illustrate the great importance of addressing substance misuse and substance use disorders among young adults experiencing co-occurring first-episode psychosis.

Substance misuse and substance use disorders can also cause significant distress and strife among young people with first-episode psychosis and their families. Young adults and their families may have conflicting views about the benefits and safety of substance use. Young people with first-episode psychosis may be reluctant or unwilling to stop using substances, which may be difficult for families to accept, especially when other children are living in the home. Interest in reducing substance use may wax and wane over time and may be more related to the threat of punishment than to any desire to make a change. In some cases, young adults with first-episode psychosis may not accept that substance use can contribute to worsening psychotic symptoms or other poor mental health outcomes.

For young people experiencing first-episode psychosis, reducing or stopping substance misuse yields significant improvements in psychotic symptoms and depressive symptoms and can improve a young person's ability to get back to his or her life.^{25, 52} Research has found that young people who stop using substances after a first episode of psychosis achieve outcomes similar to those who had never used substances.^{48, 52} Overall, reducing or stopping substance use early in the experience of psychosis predicts better long-term outcomes.

Coordinated Specialty Care

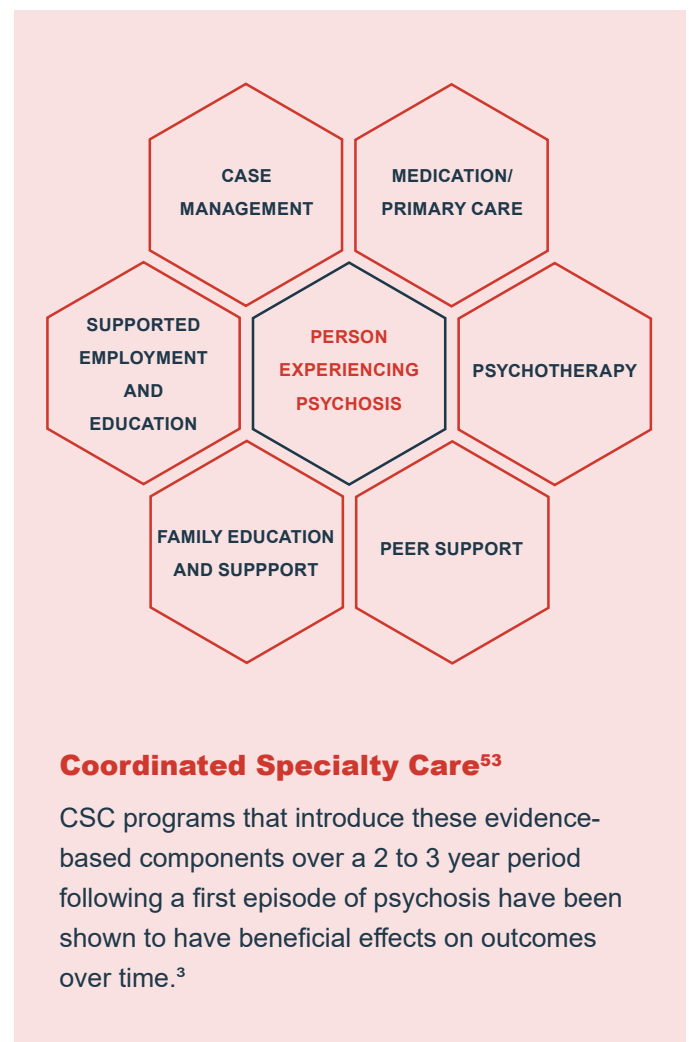
Recovery is possible for young adults who experience first-episode psychosis.^{41, 53} There are effective treatments that help young adults reduce and manage psychotic symptoms, re-engage with friends and families in ways that are comfortable and meaningful to them, and work towards their personal future goals. Interventions including low doses of antipsychotic medications, cognitive and behavioral psychotherapy, family education and support, and employment and educational supports can help improve psychotic symptoms and functioning in their daily lives.³ These treatments can be provided by a range of mental health practitioners in outpatient and rehabilitation settings.

Over the last decade, there has been an important national effort to support a multi-element approach called **Coordinated Specialty Care (CSC)**, which specifically focuses on providing comprehensive evidence-based treatment to young people experiencing first-episode psychosis.³ The treatment team generally includes a medication prescriber, a primary clinician who provides recovery oriented behavioral and family services, and an employment/education specialist. Many programs also include a peer support specialist with training in recovery-oriented services and lived experience of first-episode psychosis. CSC clinicians are trained to treat first-episode psychosis, and they work with young people and their families to create personal treatment plans, ideally as soon as possible after psychotic symptoms begin.

Depending on a young person's needs and preferences, specialists on the team can offer psychotherapy, medication management geared to first-episode psychosis, case management, family education and support, assistance with employment or education, and coordination with primary care providers. They also conduct community outreach and help young people and their families navigate the health care system and identify community supports and resources.

Peer support specialists can offer hope that recovery is possible and provide an accessible model for how to work towards a personal recovery of one's own. Importantly, interventions to address substance misuse and substance use disorders are integrated into CSC and are provided alongside services for first-episode psychosis. This allows young people to address substance use goals within the context of first-episode psychosis recovery.

The young person with first-episode psychosis and his or her family are central members of the treatment team, and services are delivered using a shared decision-making framework. This collaborative approach respects the autonomy and expertise of young people as part of the treatment process and allows young people and their families to feel better, gain hope for the future, and move towards recovery.





Integration of Treatment Approaches for Substance Misuse and Substance Use Disorders in the Context of Treatment for First-Episode Psychosis

Young people experiencing first-episode psychosis, like other young adults, may use alcohol or some drugs infrequently or socially and in ways that do not cause problems for them or impair their functioning. However, substance use will reach the level of misuse or disorder for some young people experiencing first-episode psychosis. It is important to conduct an initial assessment to determine whether a young person uses substances at all, their personal patterns of use, and whether substance use is causing problems or impairing functioning.⁴¹ Clinicians should ask questions that assess the frequency, quantity, and types of substances used and inquire about the young person's specific reasons for use and personal thoughts about change.

For individuals with psychotic disorders, treatment of substance misuse or substance use disorders by separate, unconnected clinicians is rarely effective.^{54, 55} Poor follow-through on referrals to other agencies for treatment and lack of coordination between treatment providers contribute to high rates of dropout from traditional substance use treatment for people with psychotic illness. In the last several years, several general principles have emerged as important for providing treatment for substance use disorders in the context of first-episode psychosis.^{54, 56, 57} Research indicates that treatment for co-occurring disorders should be provided in an integrated and seamless way.⁵⁷

Chapter 2 of this guide provides a review of the literature on treating substance misuse and substance use disorders within the context of first-episode psychosis. More research on effective treatments is needed, along with better information on how to integrate substance use treatment as part of comprehensive early intervention services, particularly for those who have more moderate to severe substance use issues.^{41, 58}

Coordinated Specialty Care in Rural Settings

Workforce limitations and the lack of accessible health care services in rural areas can make it challenging to implement coordinated specialty care for first-episode psychosis. The shortage of available staff can be particularly pronounced in rural and historically underserved areas and providing team-based treatment across wide geographic areas can be difficult. Research illustrates the importance of informal and formal support networks for individuals experiencing co-occurring disorders. Telehealth can connect rural and frontier providers to program-specific expertise.⁶²

Challenges of Addressing Substance Use Disorders in the Context of First-Episode Psychosis

1 Screening and Diagnosis

The effects of alcohol and drugs such as stimulants, cannabis, and hallucinogens can mimic symptoms of psychotic illness. This can make it difficult to reliably assess and diagnose these conditions. Substance use disorders are often missed in people with a psychotic illness if routine assessment of these issues is not incorporated into standard practice.^{54, 56}

2 Access to Care

Not all young people and their families will have access to CSC programs. Currently these programs are generally located in population centers of over 500,000 people. The issue of access affects both youth and adult health systems as well as mental health and substance use service systems. In addition, a lack of information about first-episode psychosis within the general public and among institutions that serve young adults can impede timely access to care and may prolong the duration of untreated psychosis.⁵⁹⁻⁶¹ Resource-rich programs like CSC may not be widely available for young people who need them, particularly in rural areas with underserved groups.⁶²

3 Lack of Integrated Care

Fragmentation in service delivery is not uncommon—service systems often lack structural relationships necessary to coordinate the delivery of services.⁶³ If mental health services and substance use services are distinct, there may be less coordinated care for individuals who experience psychosis and substance use disorders.

Reference List

1. Substance Abuse and Mental Health Services Administration. (2013). *Results from the 2012 National Survey on Drug Use and Health: summary of national findings*. NSDUH Series H-46, HHS Publication No. (SMA) 13-4795. Rockville, MD: Substance Abuse and Mental Health Services Administration.
2. Breitborde, N. J., Srihari, V. H., & Woods, S. W. (2009). Review of the operational definition for first-episode psychosis. *Early Intervention in Psychiatry*, 3, 259-265.
3. Heinssen, R. K., Goldstein, A. B., & Azrin, S. T. (2014). *Evidence-based treatments for first episode psychosis: components of coordinated specialty care*. Retrieved from https://www.nimh.nih.gov/health/topics/schizophrenia/raise/nimh-white-paper-csc-for-fep_147096.pdf.
4. National Institute of Mental Health. (2015). Fact sheet: first episode psychosis. Retrieved from <https://www.nimh.nih.gov/health/topics/schizophrenia/raise/fact-sheet-first-episode-psychosis.shtml>.
5. Ford, E. (2015). First-episode psychosis in the criminal justice system: identifying a critical intercept for early intervention. *Harvard Review of Psychiatry*, 23(3), 167-175.
6. Azrin, S. T., Goldstein, A. B., & Heinssen, R. K. (2015). Early intervention for psychosis: the Recovery After an Initial Schizophrenia Episode project. *Psychiatric Annals*, 45, 548-553.
7. Bird, V., Premkumar, P., Kendall, T., Whittington, C., Mitchell, J., & Kuipers, E. (2010). Early intervention services, cognitive-behavioural therapy and family intervention in early psychosis: systematic review. *British Journal of Psychiatry*, 197, 350-356.
8. Penn, D. L., Waldheter, E. J., Perkins, D. O., Mueser, K. T., & Lieberman, J. A. (2005). Psychosocial treatment for first-episode psychosis: a research update. *American Journal of Psychiatry*, 162, 2220-2232.
9. Randall, J. R., Vokey, S., Loewen, H., Martens, P. J., Brownell, M., Katz, A.,...Chateau, D. (2015). A systematic review of the effect of early interventions for psychosis on the usage of inpatient services. *Schizophrenia Bulletin*, 41, 1379-1386.
10. Dixon, L. B., Goldman, H. H., Bennett, M. E., Wang, Y., McNamara, K. A., Mendon, S. J.,...Essock, M. (2015). Implementing Coordinated Specialty Care for early psychosis: the RAISE Connection program. *Psychiatric Services*, 66, 691-698.
11. Kane, J. M., Robinson, D. G., Schooler, N. R., Mueser, K. T., Penn, D. L., Rosenheck, R. A., ... Heinssen, R. (2016). Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *American Journal of Psychiatry*, 173, 362-372.
12. Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). Monitoring the future national results on adolescent drug use: overview of key findings, 2011. Ann Arbor: Institute for Social Research, The University of Michigan. Retrieved from <http://monitoringthefuture.org/pubs/monographs/mtf-overview2011.pdf>.
13. Substance Abuse and Mental Health Services Administration. (2005). *Results from the 2004 National Survey on Drug Use and Health: national findings*. NSDUH Series H-28, DHHS Publication no. SMA 05-4062. Rockville, MD: US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies.

14. National Institute on Alcohol Abuse and Alcoholism. (2016). Drinking levels defined. Retrieved from <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking>.
15. Jennison, K. M. (2004). The short-term effects and unintended long-term consequences of binge drinking in college: a 10-year follow-up study. *American Journal of Drug and Alcohol Abuse, 30*, 659-684.
16. Kuntsche, E., Kuntsche, S., Thrul, J., & Gmel, G. (2017). Binge drinking: health impact, prevalence, correlates and interventions. *Psychological Health, 32*, 976-1017.
17. Jones, S. A., Lueras, J. M., & Nagel, B. J. (2018). Effects of binge drinking on the developing brain. *Alcohol Research, 39*, 87-96.
18. Cohen, K., Weizman, A., & Weinstein, A. (2019). Positive and negative effects of cannabis and cannabinoids on health. *Clinical Pharmacology & Therapeutics, 105*, 1139-1147.
19. Substance Abuse and Mental Health Services Administration. (2017). *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health*. Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.htm>.
20. Oluwoye, O., Monroe-DeVita, M., Burduli, E., Chwastiak, L., McPherson, S., McClellan, J. M., & McDonnell, M. (2019). Impact of tobacco, alcohol and cannabis use on treatment outcomes among patients experiencing first episode psychosis: Data from the national RAISE-ETP study. *Early Intervention in Psychiatry, 13*, 142-146.
21. Ouellet-Plamondon, C., Abdel-Baki, A., Salvat, E., & Potvin, S. (2017). Specific impact of stimulant, alcohol and cannabis use disorders on first-episode psychosis: 2-year functional and symptomatic outcomes. *Psychological Medicine, 47*, 2461-2471.
22. Gonzalez-Ortega, I., Martinez-Cengotitabengoa, M., & Gonzalez-Pinto, A. (2017). Cannabis use and first-episode psychosis patients (FEP). In *Handbook of Cannabis and Related Pathologies* (pp. 257-266). San Diego, CA: Elsevier.
23. Myles, H., Myles, N., & Large, M. (2016). Cannabis use in first episode psychosis: meta-analysis of prevalence, and the time course of initiation and continued use. *Australian and New Zealand Journal of Psychiatry, 50*, 208-219.
24. Clausen, L., Hjorthoj, C. R., Thorup, A., Jeppesen, P., Petersen, L., Bertelsen, M., & Nordentof, M. (2014). Change in cannabis use, clinical symptoms and social functioning among patients with first-episode psychosis: a 5-year follow-up study of patients in the OPUS trial. *Psychological Medicine, 44*, 117-126.
25. Gonzalez-Pinto, A., Alberich, S., Barbeito, S., Gutierrez, M., Vega, P., Ibanez, B., ... Arango, C. (2011). Cannabis and first-episode psychosis: different long-term outcomes depending on continued or discontinued use. *Schizophrenia Bulletin, 37*, 631-639.
26. Sara, G. E., Burgess, P. M., Malhi, G. S., Whiteford, H. A., & Hall, W. C. (2014). Cannabis and stimulant disorders and readmission 2 years after first-episode psychosis. *British Journal of Psychiatry, 204*, 448-453.
27. Correll, C. U., Robinson, D. G., Schooler, N. R., Brunette, M. F., Mueser, K. T., Rosenheck, R. A., ... Kane, J. (2014). Cardiometabolic risk in patients with first-episode schizophrenia spectrum disorders: baseline results from the RAISE-ETP study. *JAMA Psychiatry, 71*, 1350-1363.

28. Brunette, M. F., Mueser, K. T., Babbin, S., Meyer-Kalos, P., Rosenheck, R., Correll, C. U., ... Kane, J. (2018). Demographic and clinical correlates of substance use disorders in first episode psychosis. *Schizophrenia Research, 194*, 4-12.
29. Cather, C., Brunette, M. F., Mueser, K. T., Babbin, S. F., Rosenheck, R., Correll, C. U., & Kalos-Meyer, P. (2018). Impact of comprehensive treatment for first episode psychosis on substance use outcomes: a randomized controlled trial. *Psychiatry Research, 268*, 303-311.
30. Colizzi, M., Carra, E., Fraietta, S., Lally, J., Quattrone, D., Bonaccorso, S., ... Di Forti, M. (2016). Substance use, medication adherence and outcome one year following a first episode of psychosis. *Schizophrenia Research, 170*, 311-317.
31. Srihari, V. H., Tek, C., Kucukgoncu, S., Phutane, V. H., Breitborde, N. J., Pollard, J., ... Woods, S. (2015). First-episode services for psychotic disorders in the U.S. public sector: a pragmatic randomized controlled trial. *Psychiatric Services, 66*, 705-712.
32. Archie, S., Rush, B. R., Akhtar-Danesh, N., Norman, R., Malla, A., Roy, P., & Zipursky, R. (2007). Substance use and abuse in first-episode psychosis: prevalence before and after early intervention. *Schizophrenia Bulletin, 33*, 1354-1363.
33. Compton, M. T., Kelley, M. E., Ramsay, C. E., Pringle, M., Goulding, S. M., Esterberg, M. L., ... Walker, E. (2009). Association of pre-onset cannabis, alcohol, and tobacco use with age at onset of prodrome and age at onset of psychosis in first-episode patients. *American Journal of Psychiatry, 166*, 1251-1257.
34. Wade, D., Harrigan, S., Edwards, J., Burgess, P. M., Whelan, G., & McGorry, P. D. (2005). Patterns and predictors of substance use disorders and daily tobacco use in first-episode psychosis. *Australian and New Zealand Journal of Psychiatry, 39*, 892-898.
35. Schulenberg, J. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Miech, R. A. & Patrick, M. E. (2017). *Monitoring the Future national survey results on drug use, 1975–2016: Volume II, College students and adults ages 19–55*. Ann Arbor: Institute for Social Research, The University of Michigan. Available at <http://monitoringthefuture.org/pubs.html#monographs>
36. deRuiter, W. K., Cheng, C., Gehrs, M., Langley, J., & Dewa, C. S. (2013). Substance abuse and smoking among a Canadian cohort of first episode psychosis patients. *Community Mental Health Journal, 49*, 815-821.
37. Myles, N., Newall, H. D., Curtis, J., Nielssen, O., Shiers, D., & Large, M. (2012). Tobacco use before, at, and after first-episode psychosis: a systematic meta-analysis. *Journal of Clinical Psychiatry, 73*, 468-475.
38. Green, A. I., Tohen, M. F., Hamer, R. M., Strakowski, S. M., Lieberman, J. A., Glick, I., ... HGDH Research Goup (2004). First episode schizophrenia-related psychosis and substance use disorders: acute response to olanzapine and haloperidol. *Schizophrenia Research, 66*, 125-135.
39. Grant, B. F., Saha, T. D., Ruan, W. J., Goldstein, R. B., Chou, S. P., Jung, J., ... Hasin, D. (2016). Epidemiology of DSM-5 drug use disorder: results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *JAMA Psychiatry, 73*, 39-47.

40. Stone, J. M., Fisher, H. L., Major, B., Chisholm, B., Woolley, J., Lawrence, J., ... MiData Consortium (2014). Cannabis use and first-episode psychosis: relationship with manic and psychotic symptoms, and with age at presentation. *Psychological Medicine*, *44*, 499-506.
41. Bello, I. & Dixon, L. B. (2017). Treating affective psychosis and substance use disorders within Coordinated Specialty Care. Retrieved from https://www.nasmhpd.org/sites/default/files/DH-TreatingAffectivePsychosis_v2_0.pdf.
42. Wade, D., Harrigan, S., Edwards, J., Burgess, P. M., Whelan, G., & McGorry, P. D. (2006). Substance misuse in first-episode psychosis: 15-month prospective follow-up study. *British Journal of Psychiatry*, *189*, 229-234.
43. Mauri, M. C., Volonteri, L. S., De Gaspari, I. F., Colasanti, A., Brambilla, M. A., & Cerruti, L. (2006). Substance abuse in first-episode schizophrenic patients: a retrospective study. *Clinical Practice & Epidemiology in Mental Health*, *2*, 4.
44. Kamali, M., McTigue, O., Whitty, P., Gervin, M., Clarke, M., Browne, S., ... O'Callaghan, E. (2009). Lifetime history of substance misuse in first-episode psychosis: prevalence and its influence on psychopathology and onset of psychotic symptoms. *Early Intervention in Psychiatry*, *3*, 198-203.
45. Schmidt, L. M., Hesse, M., & Lykke, J. (2011). The impact of substance use disorders on the course of schizophrenia--a 15-year follow-up study: dual diagnosis over 15 years. *Schizophrenia Research*, *130*, 228-233.
46. Lambert, M., Conus, P., Lubman, D. I., Wade, D., Yuen, H., Moritz, S., ... Schimmelmann, B. (2005). The impact of substance use disorders on clinical outcome in 643 patients with first-episode psychosis. *Acta Psychiatrica Scandinavica*, *112*, 141-148.
47. Harrison, I., Joyce, E. M., Mutsatsa, S. H., Hutton, S. B., Huddy, V., Kapasi, M., Barenas, T. (2008). Naturalistic follow-up of co-morbid substance use in schizophrenia: the West London first-episode study. *Psychological Medicine*, *38*, 79-88.
48. Weibell, M. A., Hegelstad, W. T. V., Auestad, B., Bramness, J., Evensen, J., Haahr, U., ... Friis, S. (2017). The effect of substance use on 10-year outcome in first-episode psychosis. *Schizophrenia Bulletin*, *43*, 843-851.
49. Addington, J. & Addington, D. (2007). Patterns, predictors and impact of substance use in early psychosis: a longitudinal study. *Acta Psychiatrica Scandinavica*, *115*, 304-309.
50. Drake, R. E., McHugo, G. J., Xie, H., Fox, M., Packard, J., & Helmstetter, B. (2006). Ten-year recovery outcomes for clients with co-occurring schizophrenia and substance use disorders. *Schizophrenia Bulletin*, *32*, 464-473.
51. Faridi, K., Joobar, R., & Malla, A. (2012). Medication adherence mediates the impact of sustained cannabis use on symptom levels in first-episode psychosis. *Schizophrenia Research*, *141*, 78-82.
52. Mullin, K., Gupta, P., Compton, M. T., Nielssen, O., Harris, A., & Large, M. (2012). Does giving up substance use work for patients with psychosis? A systematic meta-analysis. *Australian and New Zealand Journal of Psychiatry*, *46*, 826-839.
53. Kazandjian, M. (2018). Early serious mental illness guide for faith communities. Retrieved from https://www.nasmhpd.org/sites/default/files/Guide_for_Faith_Communities.pdf.
54. Mueser, K. T. & Gingerich, S. (2013). Treatment of co-occurring psychotic and substance use disorders. *Social Work and Public Health*, *28*, 424-439.

-
55. Ridgely, M. S., Goldman, H. H., & Willenbring, M. (1990). Barriers to the care of persons with dual diagnoses: organizational and financing issues. *Schizophrenia Bulletin*, *16*, 123-132.
56. Certy, E., Lehman, A. F., & Myers, C. P. (1993). Influence of psychoactive substance use on the reliability of psychiatric diagnosis. *Journal of Consulting and Clinical Psychology*, *61*, 165-170.
57. Dixon, L. B., Dickerson, F., Bellack, A. S., Bennett, M., Dickinson, D., Goldberg, R. W., ... Schizophrenia Patient Outcomes Research Team (PORT). (2010). The 2009 schizophrenia PORT psychosocial treatment recommendations and summary statements. *Schizophrenia Bulletin*, *36*, 48-70.
58. Wisdom, J. P., Manuel, J. I., & Drake, R. E. (2011). Substance use disorder among people with first-episode psychosis: a systematic review of course and treatment. *Psychiatric Services*, *62*, 1007-1012.
59. Etheridge, K., Yarrow, L., & Peet, M. (2019). Pathways to care in first episode psychosis. *Journal of Psychiatric and Mental Health Nursing*, *11*, 125-128.
60. Gronholm, P. C., Thornicroft, G., Laurens, K. R., & Evans-Lacko, S. (2017). Mental health-related stigma and pathways to care for people at risk of psychotic disorders or experiencing first-episode psychosis: a systematic review. *Psychological Medicine*, *47*, 1867-1879.
61. Anderson, K. K., Fuhrer, R., & Malla, A. K. (2013). "There are too many steps before you get to where you need to be": help-seeking by patients with first-episode psychosis. *Journal of Mental Health*, *22*, 384-395.
62. Crisanti, A., Altschul, D, Smart, L., & Bonham, C. (2015). Implementation of coordinated specialty services for first episode psychosis in rural and frontier communities. Retrieved from https://www.nasmhpd.org/sites/default/files/Rural-Fact%20Sheet-_1.pdf.
63. Knickman, J., Krishnan, R., & Pincus, H. (2016). Improving access to effective care for people with mental health and substance use disorders. *JAMA*, *316*, 1647-1648.

WHAT RESEARCH TELLS US

Effectiveness of Treatment for Substance Use Disorders Among Persons with First-Episode Psychosis

Introduction

As reviewed in Chapter 1, substance misuse and substance use disorders (referred to throughout as “substance misuse/disorders”), especially those related to alcohol and cannabis, are common among young adults entering treatment for first-episode psychosis. As a result, addressing substance misuse/disorders is an important component of first-episode psychosis treatment.

The literature in this area contains two types of studies. The first are naturalistic studies that follow young people over time to examine the course of substance use following first-episode psychosis

services. The second are randomized controlled trials that test interventions specifically targeting substance misuse/disorders to determine which interventions are most effective in reducing substance use and improving related areas of functioning.

In order to fully understand the ways that substance misuse/disorders change over time in response to treatment, it is important to review both types of studies.

This chapter has several goals:

- We present findings on changes in substance misuse/disorders in response to generalized treatment for first-episode psychosis.
- We review research that examines the impact of targeted interventions for substance misuse/disorders on substance use outcomes.
- We review research that examines the impact of targeted interventions for substance misuse/disorders on other important outcomes.
- We synthesize the findings in order to make recommendations for addressing substance misuse/disorders when working with young adults with first-episode psychosis.



Changes in Substance Use in Response to Generalized Treatment for First-Episode Psychosis

Generalized treatment for first-episode psychosis usually includes low doses of antipsychotic medications, psycho-education about psychosis and recovery, cognitive and behavioral psychotherapy, family education and support, and employment and educational supports. As part of psycho-education, many first-episode psychosis treatment programs highlight the relationship between continued substance use and poorer outcomes and advise young adults to reduce or stop substance use in order to promote recovery. However, these services generally do not include specialized interventions for substance misuse/disorders.

Most research in this area follows young adult samples engaged in first-episode psychosis treatment naturalistically to observe if and how substance use changes over time once treatment for psychosis is provided. In 2011, Wisdom and colleagues¹ reviewed this literature, including nine naturalistic studies that followed cohorts of young adults entering early psychosis treatment, sometimes for several years. These studies showed that approximately 50 percent of young people decrease substance use after receiving generalist services for first-episode psychosis, often in the initial weeks or months of treatment.

Research has not fully addressed how generalized first-episode psychosis treatment impacts reductions in substance use. It could be that this type of comprehensive, integrated treatment encourages behaviors that support recovery and discourages those that do not. Another possibility is that young adults who experience psychosis attribute symptoms to substance use and stop use in response.

The one randomized controlled trial in this literature – a comparison of participation in a specialized psychosis relapse prevention program that emphasized abstinence from substances versus a generalized early psychosis treatment as usual – found no differences on any substance use outcome measures.²

Lobbana and colleagues conducted a qualitative study in which they asked young adults who were engaged in first-episode psychosis services and had used substances prior to treatment about factors that influenced their substance use.³ One theme that emerged was that changes in life goals affected substance use. Many young adults in the sample reported that values such as health, income, and family increased in importance over time and were key reasons for reducing or stopping substance use. In synthesizing the findings of their review, Wisdom and colleagues speculate that many influences are likely at work: “Experience, education, treatment, or other factors led many clients to curtail their substance use disorders after a first episode of psychosis.”¹



Effectiveness of Targeted Interventions on Substance Use Outcomes

Research in this area is focused on studying interventions that specifically address substance misuse/disorders. The studies in this section are all randomized controlled trials, the highest standard for examining intervention efficacy. Unless otherwise noted, all studies reviewed in this section included:

- A sample of individuals with first-episode or early psychosis;
- An intervention or intervention model that addresses substance misuse/disorders;
- An outcome measure pertaining to substance use (e.g., toxicology report, participant self-report); and
- A comparison group.

Overall, nine randomized controlled trials have been conducted to test the effects of specific interventions targeting substance use in young adults with first-episode psychosis,^{4,12} including brief motivational enhancement plus skills training interventions, cognitive behavioral therapy plus motivational interviewing, and antipsychotic medication.



This section uses a four-tiered rating system to assess the quality of the evidence.



Strong evidence of effectiveness

Effectiveness demonstrated in systematic reviews or meta-analyses of randomized controlled trials.



Moderate evidence of effectiveness

Effectiveness demonstrated in at least two randomized controlled trials judged to be of sufficient methodological quality.



Limited evidence of effectiveness

Effectiveness demonstrated in:

- one randomized controlled trial, OR
- at least two quasi-experimental studies with a matched control group and a design that attempts to isolate the effects of the intervention, OR
- results across studies (whether randomized controlled trial or quasi-experimental) are mixed or randomized controlled trials show non-significant average effects in meta-analyses or are limited by significant methodological problems (e.g., inadequate sample size).



No evidence of effectiveness

Effectiveness not demonstrated in any study (regardless of study design).

Brief Motivational Enhancement/Skills Training

Brief motivational enhancement/skills training is a treatment approach that helps individuals overcome ambivalence and develop skills needed to reduce or stop substance use. Studies of brief motivational enhancement/skills training for individuals with first-episode psychosis tested the intervention primarily in an individual format over four to nine sessions.^{5, 9}

Cognitive Behavioral Therapy (CBT) + Motivational Interviewing (MI)

Cognitive behavioral therapy (CBT) + motivational interviewing (MI) combines CBT techniques, such as the development of a shared formulation of substance use problems, psychoeducation about the relationship between substance use and psychosis, goal setting and change planning, coping skills training, and motivational enhancement in order to address substance use problems. Most studies of CBT + MI for individuals with first-episode psychosis evaluated the intervention in an individual format over 10 or more sessions, with several offering at least one booster session.^{4, 6, 8, 10, 11}

Antipsychotic Medications

Antipsychotic medications, such as olanzapine and risperidone, have also been evaluated for their impact on substance use outcomes among individuals with first-episode psychosis.

Brief Motivational Enhancement/Skills Training



Two randomized controlled trials demonstrated that brief motivational enhancement plus skills training interventions were associated with significantly greater reductions in substance use than treatment as usual (i.e., generalized treatment for first-episode psychosis) in samples of young adults with first-episode psychosis.^{5, 9} However, one of these studies had a small sample size,⁹ and the other study demonstrated that differences between treatment and control groups were no longer significant at a 12-month follow-up.⁵

These findings suggest that interventions that incorporate brief motivational enhancement and skills training hold promise for improving substance use outcomes. Additional research in larger samples is needed to more fully understand the effects of brief motivational enhancement and skills training on substance use outcomes, and to determine its optimal dose. The fact that benefits have been found to decrease over time suggests that people may need boosters or ongoing support for reducing substance use.

Cognitive Behavioral Therapy + Motivational Interviewing



Five randomized controlled trials found that cognitive behavioral therapy (CBT) plus motivational interviewing (MI) was no more effective than a comparison treatment (including psychoeducation or time-limited interventions) in terms of reducing substance use among individuals with first-episode psychosis.^{4, 6-8, 11} Some of these studies included active control conditions that provided generalized early psychosis services. As reviewed above, such services are associated with reduced substance use over time for some individuals.

One small randomized controlled trial of brief CBT plus MI, delivered over four to six sessions, showed that the treatment group experienced significant declines in the frequency of cannabis and alcohol abuse compared to those in a treatment as usual condition.¹⁰ Taken together, these results provide limited evidence for brief CBT plus MI when compared to treatment as usual, while more extended CBT/MI interventions do not appear to be any more effective than briefer ones that address substance use.

Pharmacological Interventions



Pharmacological treatments for substance misuse among individuals with first-episode psychosis have also been studied. One randomized controlled trial found that there were no differences between those being prescribed risperidone and those being prescribed olanzapine in terms of cannabis and alcohol use;¹² in both groups, the use of substances during the study was substantial (38-52 percent).

A systematic review and meta-analysis of the efficacy, acceptability, and tolerability of various antipsychotic medications among individuals with schizophrenia and co-occurring substance use indicated that:

- Clozapine was superior to other antipsychotics in terms of reducing substance use.
- Risperidone was shown to be more effective than olanzapine for reducing cravings.¹³

The majority of these studies were conducted with individuals with chronic schizophrenia, suggesting that additional research on the impact of antipsychotic medications on substance use outcomes among people with first-episode psychosis is needed.

Other pharmacological interventions for substance use, such as the antioxidant N-acetylcysteine, demonstrate effectiveness among adolescents with cannabis dependence¹⁴ but have also not been studied among individuals with first-episode psychosis and co-occurring substance misuse or substance use disorder. These interventions have either targeted non-specific substance use (i.e., alcohol, cannabis, street or non-prescribed drugs, tobacco^{6, 9, 10}) or cannabis use in particular.^{4, 5, 7, 8, 11, 12} Although Medication-Assisted Treatment (MAT) is considered the gold standard for the treatment of some substance use disorders, no studies have yet examined its use for individuals with first-episode psychosis who have co-occurring substance use disorders. Further study of interventions for specific substances in randomized controlled trials is recommended.

Interventions for Individuals with First-Episode Psychosis and Substance Misuse/Disorders

Seven studies included in this review tested the effects of the intervention only among individuals with first-episode psychosis who also had substance misuse or qualified for a substance use disorder at the beginning of the study.^{4, 5, 7-11} Four studies included both people with and without current substance misuse.^{2, 6, 12, 15} Out of these four studies, one demonstrated greater substance use among those who were using versus those who stopped use prior to study entry,¹² one demonstrated no differences across subgroups with varying levels of substance use,⁶ and two did not compare outcomes based on frequency or severity of substance use at baseline.^{2, 15} Identifying the most effective substance use treatments in samples of those with first-episode psychosis with varying levels of substance use is a critical area for future research.





Controlled Trials of Targeted Interventions on Functional Outcomes

Some studies of substance use treatments have reported on non-substance use outcomes in order to shed light on whether these interventions might impact areas such as symptoms, hospitalization, and functional outcomes.

Brief Motivational Enhancement/Skills Training



Brief motivational enhancement and skills training interventions have been shown to be no more effective than treatment as usual for improving symptoms, social/occupational functioning, or global functioning; or for reducing hospitalizations.⁵

Cognitive Behavioral Therapy + Motivational Interviewing



Randomized controlled trials of cognitive behavioral therapy plus motivational interviewing have demonstrated positive findings related to self-efficacy,¹⁰ mixed findings related to quality of life, symptoms, and social/occupational functioning,^{4, 6-8, 10, 11} and negative findings related to neurocognition, insight, attitudes toward treatment, global functioning, hospitalizations, and psychosis relapse rates.^{4, 11}

Using the Evidence to Guide Practice

There are several conclusions that can be drawn from this review.

1 Young adults experiencing first-episode psychosis, even those who enter treatment with substance misuse or substance use disorder, should be offered generalized early intervention services. Many will make significant reductions in substance misuse/disorder in the early stages of first-episode psychosis treatment without the need for any additional targeted treatment.

2 Those who do not reduce their substance use in response to generalized first-episode psychosis treatment should be offered targeted substance use interventions. There is limited evidence that brief interventions that include motivational enhancement, skills training, and cognitive behavioral therapy are beneficial. As we await a more robust evidence base, use of these interventions is encouraged, but they may not be sufficient to significantly and quickly reduce substance use.

The process of engaging these young adults in substance use treatment is likely a longer-term process that unfolds over time as treatment for first-episode psychosis helps young people feel better and identify reasons for change. Treatment focused on addressing problems associated with substance use (e.g., social issues, physical health problems, medication adherence) may be most appropriate for those not ready to reduce or stop substance use.⁴ Time-limited interventions for substance use might be considered before implementing longer, more elaborate treatments.^{5, 7, 9, 10}

3 It is clear from this review that more research needs to be done to build an evidence base for intervention in this area; there are relatively few studies, and they vary considerably in approach. In spite of this diversity, the interventions that have been studied share a number of common elements in their approach to substance use treatment. These include:

- **Harm reduction approach** – the intervention aims to reduce the negative consequences associated with substance use and to support person-centered goals related to decreasing in addition to stopping substance use.
- **Decision support materials** – the intervention includes educational materials, such as informational leaflets about the relationship between psychosis and substance use, as well as decision support tools (e.g., decisional balance worksheets) to help individuals weigh the pros and cons of various options associated with substance use.
- **Focus on interests and life goals** – the intervention assesses individuals' life and community participation interests and goals in areas such as work/school, social relationships, leisure/recreation, spirituality, and health in order to build rapport, facilitate engagement, and help individuals note discrepancies between substance use and goal attainment.
- **Motivational enhancement** – the intervention uses motivational interviewing techniques, such as open-ended questioning, affirmations, reflections, and summaries to help individuals overcome ambivalence about making a change related to substance use.

- **Adaptations for individuals with cognitive challenges** – the intervention uses strategies such as frequent repetition, simple and concise language, written aids, and concrete metaphors in order to engage individuals with cognitive challenges in motivational interviewing.
- **Establishing goals for change and change plans** – in addition to assessing life goals, the intervention assists individuals with developing specific goals and plans related to substance use that are appropriate to their current stage of change.
- **Coping skills training** – the intervention helps individuals develop coping strategies such as avoiding or leaving high risk situations, increasing enjoyable activities not involving substance use, and obtaining support from others in order to change substance use.
- **Relapse prevention planning and problem solving** – the intervention encourages individuals to anticipate challenges to short-term achievement and long-term maintenance of substance use change and teaches problem solving skills to address these challenges.
- **Communication among all team members regarding individuals' goals and plans** – all members of the treatment team are informed of individuals' goals and progress related to changing substance use so that they can reinforce and support individuals in this area as a regular part of their work together.
- **Follow-up support** – booster sessions that are consistent with individuals' current stage of change are offered, reinforcing change attempts, refining skills, and further developing relapse prevention plans.

Incorporating these elements can help clinicians talk about substance misuse with their young adult clients and maintain these conversations as part of the first-episode psychosis treatment process. It may be that these ongoing discussions have the best chance of

supporting change. Adding contingency management, peer support, and family-based approaches to substance use treatment may also be tried to boost effectiveness.^{4, 8}

As noted, the literature does not yet fully address the efficacy of medications such as clozapine for treatment of substance use disorders in those experiencing first-episode psychosis. Drawing upon their knowledge and experience, program prescribers can consider findings in studies involving other populations, such as adults, and integrate them in making prescribing decisions with individuals with first-episode psychosis. Although these strategies do not yet have empirical support in first-episode psychosis, there is support for their positive impact in other populations of individuals with substance use disorders.¹⁶⁻²⁰

General Questions for evaluating substance use disorders.

Ask about:

- Alcohol use: drinks per/day, drinks per/week,
 - Binge drinking Men:> 5/,women W > 4 drinks in approx. 2 hour time period
 - Heavy drinking: binge use on 5 or more days in past month (see Pocket guide for Alcohol Screening and Brief Intervention²¹)
- Use of prescription drugs for a non-medical reason/for a purpose not part of why prescribed
- Use of any illicit substance (see TAPS)²²
- Symptoms of depression Patient Health Questionnaire (PHQ)-9, PHQ-2
 - Interest, pleasure, depressed mood, energy, appetite, concentration, guilt, motor activity, thoughts of hurting self
 - PHQ-2: loss of interest/pleasure, depressed/hopeless (see PHQ 9)^{23,24}
- Follow up on positive responses for all above questions

Reference List

1. Wisdom, J. P., Manuel, J. I., & Drake, R. E. (2011). Substance use disorder among people with first-episode psychosis: a systematic review of course and treatment. *Psychiatric Services, 62*, 1007-1012.
2. Gleeson, J. F., Cotton, S. M., Alvarez-Jimenez, M., Wade, D., Gee, D., Crisp, K., ...McGorry, P. (2013). A randomized controlled trial of relapse prevention therapy for first-episode psychosis patients: outcome at 30-month follow-up. *Schizophrenia Bulletin, 39*, 436-448.
3. Lobban, F., Barrowclough, C., Jeffery, S., Bucci, S., Taylor, K., Mallinson, S., ...Marshall, M. (2010). Understanding factors influencing substance use in people with recent onset psychosis: A qualitative study. *Social Science & Medicine, 70*, 1141-1147.
4. Barrowclough, C., Marshall, M., Gregg, L., Fitzsimmons, M., Tomenson, B., Warburton, J., ... Lobban, F. (2014). A phase-specific psychological therapy for people with problematic cannabis use following a first episode of psychosis: a randomized controlled trial. *Psychological Medicine, 44*, 2749-2761.
5. Bonsack, C., Gibellini, M. S., Favrod, J., Montagrin, Y., Besson, J., Bovet, P., ...Conus, P. (2011). Motivational intervention to reduce cannabis use in young people with psychosis: a randomized controlled trial. *Psychotherapy and Psychosomatics, 80*, 287-297.
6. Cather, C., Brunette, M. F., Mueser, K. T., Babbin, S. F., Rosenheck, R., Correll, C. U., ...Kalos-Myer, P. (2018). Impact of comprehensive treatment for first episode psychosis on substance use outcomes: A randomized controlled trial. *Psychiatry Research, 268*, 303-311.
7. Edwards, J., Elkins, K., Hinton, M., Harrigan, S. M., Donovan, K., Athanopoulos, O., ...McGorry, P. (2006). Randomized controlled trial of a cannabis-focused intervention for young people with first-episode psychosis. *Acta Psychiatrica Scandinavica, 114*, 109-117.
8. Hjorthoj, C. R., Fohlmann, A., Larsen, A. M., Gluud, C., Arendt, M., & Nordentoft, M. (2013). Specialized psychosocial treatment plus treatment as usual (TAU) versus TAU for patients with cannabis use disorder and psychosis: the CapOpus randomized trial. *Psychological Medicine, 43*, 1499-1510.
9. Kavanagh, D. J., Young, R., White, A., Saunders, J. B., Wallis, J., Shockley, N., ...Claire, A. (2004). A brief motivational intervention for substance misuse in recent-onset psychosis. *Drug and Alcohol Review, 23*, 151-155.
10. Kemp, R., Harris, A., Vurel, E., & Sitharthan, T. (2007). Stop Using Stuff: trial of a drug and alcohol intervention for young people with comorbid mental illness and drug and alcohol problems. *Australasian Psychiatry, 15*, 490-493.
11. Madigan, K., Brennan, D., Lawlor, E., Turner, N., Kinsella, A., O'Connor, J. J., ...O'Callaghan, E. (2013). A multi-center, randomized controlled trial of a group psychological intervention for psychosis with comorbid cannabis dependence over the early course of illness. *Schizophrenia Research, 143*, 138-142.
12. Sevy, S., Robinson, D. G., Sunday, S., Napolitano, B., Miller, R., McCormack, J., ...Kane, J. (2011). Olanzapine vs. risperidone in patients with first-episode schizophrenia and a lifetime history of cannabis use disorders: 16-week clinical and substance use outcomes. *Psychiatry Research, 188*, 310-314.

13. Krause, M., Huhn, M., Schneider-Thoma, J., Bighelli, I., Gutschiedl, K., & Leucht, S. (2019). Efficacy, acceptability and tolerability of antipsychotics in patients with schizophrenia and comorbid substance use. A systematic review and meta-analysis. *European Neuropsychopharmacology*, *29*, 32-45.
14. Gray, K. M., Carpenter, M. J., Baker, N. L., DeSantis, S. M., Kryway, E., Hartwell, K. J., ... Brady, K. (2012). A double-blind randomized controlled trial of N-acetylcysteine in cannabis-dependent adolescents. *American Journal of Psychiatry*, *169*, 805-812.
15. Albert, N., Melau, M., Jensen, H., Emborg, C., Jepsen, J. R., Fagerlund, B., ... Nordentoft, M. (2017). Five years of specialised early intervention versus two years of specialised early intervention followed by three years of standard treatment for patients with a first episode psychosis: randomised, superiority, parallel group trial in Denmark (OPUS II). *BMJ*, *356*, i6681.
16. Bassuk, E. L., Hanson, J., Greene, R. N., Richard, M., & Laudet, A. (2016). Peer-delivered recovery support services for addictions in the United States: a systematic review. *Journal of Substance Abuse Treatment*, *63*, 1-9.
17. Bo, A., Hai, A. H., & Jaccard, J. (2018). Parent-based interventions on adolescent alcohol use outcomes: A systematic review and meta-analysis. *Drug and Alcohol Dependence*, *191*, 98-109.
18. Horigian, V. E., Anderson, A. R., & Szapocznik, J. (2016). Family-based treatments for adolescent substance use. *Child and Adolescent Psychiatric Clinics of North America*, *25*, 603-628.
19. Petry, N. M., Alessi, S. M., Olmstead, T. A., Rash, C. J., & Zajac, K. (2017). Contingency management treatment for substance use disorders: How far has it come, and where does it need to go? *Psychology of Addictive Behaviors*, *31*, 897-906.
20. Tracy, K. & Wallace, S. P. (2016). Benefits of peer support groups in the treatment of addiction. *Substance Abuse and Rehabilitation*, *7*, 143-154.
21. Pocket guide for alcohol screening and brief intervention, NIAAA website: https://pubs.niaaa.nih.gov/publications/practitioner/pocketguide/pocket_guide.htm (Accessed 10/10/2019)
22. McNeely, J., Wu, L., Subramaniam G., Sharma, G., Cathers, L., Svikis, D., Sleiter, L., Russell, L., Nordeck, C., Sharma A., O'Grady, K.E., Bouk, L.B., Cushing C., King, J., Wahle, A., Schwartz, R.P., (2017) Performance of the Tobacco, Alcohol, Prescription Medication, and other Substance use (TAPS) Tool for substance use screening in primary care patients. *Annals of Internal Medicine* *165*, 690-699.
23. Kroenke, K, Spitzer, R.L., Williams, J.B. (2001) The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16(9)*, 606-613
24. Kroenke, K, Spitzer, R.L., Williams, J.B. (2003). The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical Care*, *41*, 1284-92.

EXAMPLES OF EFFECTIVE COORDINATED SPECIALTY CARE PROGRAM MODELS

Evidence-Based Programs for Implementing Integrated Treatment of Substance Use Disorders and First-Episode Psychosis

This chapter highlights three models of Coordinated Specialty Care (CSC) that provide integrated treatment of substance misuse and substance use disorders (referred to throughout as “substance misuse/disorders”) to people experiencing first-episode psychosis.

Each model has its own manual or guidance procedures related to the treatment of substance misuse/disorders, resulting in variations in the way this treatment is provided across programs. However, across these models, CSC programs use many of the common elements of substance use treatment that were identified in Chapter 2, including a harm reduction approach, with a focus on individuals’ interests and life goals, coping skills training, and relapse prevention planning.

Currently, there are no data comparing substance use outcomes across these CSC models. However, research supports that treatment for co-occurring disorders should be provided in an integrated way, and these model descriptions exemplify how this may be accomplished in practice.

Choosing Programs

Although there are other excellent CSC models, the models featured in this chapter were chosen because they have a clearly articulated, standardized approach

to substance use treatment and are representative of the most prevalent and well-developed CSC models to date.

Format of the Chapter

Following is a succinct description of each of the three models, including model-specific features, substance use treatment elements, sample implementation strategies from CSC programs associated with the model, sample recovery outcomes, and data on substance use from the model. The format of each description is uniform to enable the reader to quickly find and compare information across models.



Model Description

EASA is a network of programs and individuals across Oregon focused on providing rapid identification, support, assessment, and treatment for individuals ages 12-25 who are experiencing early signs of psychosis. EASA is designed as a transitional program, with the goal of providing the education and resources the person needs to be successful in the long-term. Most individuals participate in EASA for about two years, although that time frame varies.

Model's Substance Use Disorder Treatment Elements

Treatment team members share in addressing substance use by integrating substance use treatment into multiple services, including:

1. Cognitive Behavioral Therapy for psychosis, substance use disorders, and other conditions;
2. Multiple Family Group Psychoeducation Groups;
3. Motivational Interviewing;
4. Peer Support (mental health, substance use, family);
5. Supported Employment and Education;
6. Case Management; and
7. Feedback Informed Treatment.

All practices are listed in EASA Practice Guidelines:

<http://www.easacommunity.org/PDF/Practice%20Guidelines%202013.pdf>

Model #1: The Early Assessment and Support Alliance (EASA)

The EASA Center for Excellence provides training, support, and resources for program development and quality improvement for EASA programs across Oregon as well as for national programs. The EASA Center for Excellence is a collaboration between Portland State University and Oregon Health & Science University. For information regarding EASA, visit www.easacommunity.org.

Sample Implementation Strategies

1. All clinicians engaging in assessment and treatment receive training in the Structured Interview for DSM-5 Disorders (SCID 5). This a comprehensive assessment of common mental health conditions including substance use disorders.
2. The SCID 5 along with advanced monthly diagnostic consultation supports clinicians in determining if the participant has a primary substance use disorder, a substance-induced disorder, or a co-occurring disorder. Consultation is offered, as clinicians often struggle with differential diagnosis and subsequent treatment when a client presents with symptoms of both substance use and mental illness.
3. A harm reduction approach is considered to be a desired practice that clinicians should be trained in implementing. This is assessed at fidelity reviews of the practice guidelines.
4. As part of the EASA credentialing process, clinicians across disciplines are encouraged to become trained in Motivational Interviewing. For more information about training, see: http://www.easacommunity.org/PDF/Certification_Rubric_2018.pdf.
5. EASA teams, including clinicians treating substance use disorders, meet weekly and review the goals of every enrolled client. This ensures communication across the team about substance use goals.

Sample Recovery Outcomes

1. Shared treatment plans are developed based on diagnosis, client goals, motivation for change, and current strengths/support (as identified by a strengths assessment based on the University of Kansas model). Treatment plans are completed in coordination with the family if the client grants permission for the family to be involved.
2. The Individual Placement and Support model of Supported Employment and Education is offered to all participants who have education and employment goals regardless of current substance use.
3. Clinicians and clients develop a process for talking about substance use that is collaborative and trusting.

Data from the Model

EASA collects longitudinal data regarding substance use outcomes and outcomes in related areas of functioning. Based on 2018 data, young people:



Decrease Substance Abuse

23.8% had an alcohol use disorder or problems with alcohol at intake, compared to **9.2%** with a diagnosis of alcohol use disorder or problems with alcohol reported at discharge.

37.8% had a diagnosis of other substance use disorder or problems at intake, compared to **14%** with a diagnosis of other substance use disorder or problems reported at discharge.

Maintain or Enter School or Work

31.5% were in school or employed at intake AND discharge (no change in occupational functioning over the course of treatment).

18.9% were not in school or employed at intake but were in school or employed at discharge.

This data reflects outcomes for all patients discharged in 2018, not just those who went through both intake and discharge within the year. Most clients are enrolled in EASA for at least two years.

Model Description

EDAPT programs provide comprehensive outpatient services to individuals ages 12-40 who have experienced:

1. The recent onset of affective or nonaffective psychosis (within the past 2 years); or
2. Clinical high risk for psychosis. Treatment includes case management, ongoing psychiatric and/or medical assessments and treatment, client and family psychoeducation and psychotherapy, educational and vocational support, and relapse prevention.

EDAPT also includes peer and family advocacy and support, trauma-integrated care, substance abuse management, Cognitive Behavioral Therapy for Psychosis, Family Focused Treatment, and cognitive remediation.

Model's Substance Use Disorder Treatment Elements

To specifically address substance misuse, EDAPT uses the Substance Abuse Management Module (SAMM) group,⁶ which:

1. Provides psychoeducation on the role substances play in exacerbating symptoms and decreasing functioning;
2. Guides group members in problem solving around substance use;
3. Teaches coping skills from a variety of theoretical orientations (e.g. cognitive behavioral therapy, dialectical behavior therapy) to support abstinence OR harm reduction; and
4. Helps the client develop a plan to prevent relapse.

Model #2: Early Diagnosis and Preventive Treatment (EDAPT)

EDAPT programs are in Sacramento, Fairfield, and Napa, California. For more information see: <https://earlypsychosis.ucdavis.edu>.

Sample Implementation Strategies

1. EDAPT teams conduct a thorough intake evaluation through record review and the Structured Clinical Interview for DSM-5 (SCID 5) with the individual and primary support persons.
2. Teams use motivational enhancement as needed to support change.
3. EDAPT's focus on group treatment for substance use was difficult because not all clients wanted to attend, and schedules/transportation were a barrier. So, EDAPT used more SAMM components in individual and family treatment and encouraged SAMM group participation.
4. EDAPT teams integrated dialectical behavior therapy (DBT) skills into their approach to enhance distress tolerance and resiliency.

Sample Recovery Outcomes

1. Substance use goals are included in the client's treatment plan, and CSC team members support these goals.
2. Using a cognitive behavioral framework to understand the role of substance use, teams strive to find alternative ways to support life goals.
3. The SAMM group format gives clients the opportunity to provide each other peer support and support progress toward treatment goals.
4. EDAPT's family-centered treatment approach empowers individuals and their support systems to be active participants in care and support individuals' personal, social, educational, and occupational goals.
5. EDAPT's diverse treatment team adapts to the needs of clients and families in a culturally sensitive manner. EDAPT uses home and school visits, bilingual clinicians, and interpretation services. EDAPT involves families and consumer advocates, who use their own experience to engage, educate, and motivate others.

Data from the Model

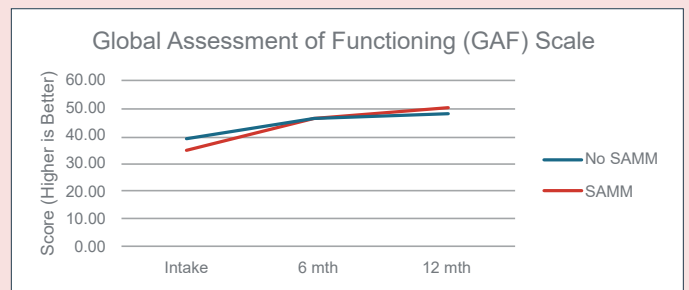
EDAPT collects data on substance use at intake, the number of clients who receive substance use treatment, and outcomes related to symptoms and functioning. Based on data from clients enrolled in EDAPT over one year:

- 1 **56%** reported a history of substance use, **31.6%** reported current use, and **23.7%** met criteria for a substance use disorder at intake. Substance use at intake was associated with significantly lower role functioning on the Global Functioning: Role Scale.

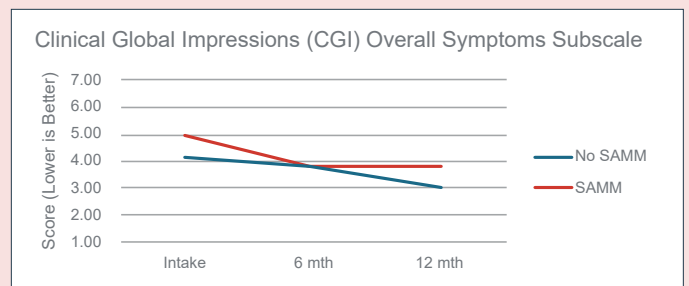
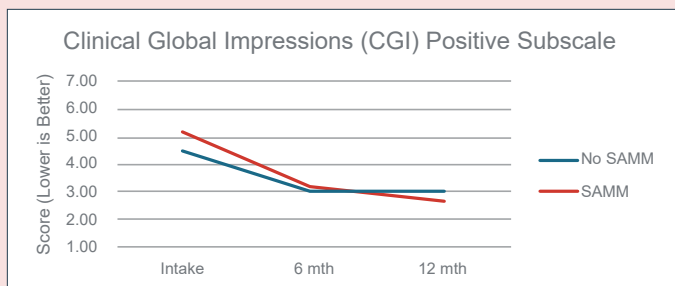
- 2 All individuals with identified substance use issues at intake received some exposure to substance use treatment.
 - **60.5%** were identified at intake as having **substance use issues that merited treatment** and were invited to participate in SAMM group, and of these **30%** participated in SAMM

 - Discussions about substance use were incorporated into treatment (based on SAMM harm reduction model) regardless of participation in SAMM group

3 Over 12 months of care, clients with identified substance use issues at intake (receiving SAMM and not receiving SAMM) **demonstrated improvement in functioning**, as assessed by the Global Functioning Scale (GAF).



4 Over 12 months of care, clients with identified substance use issues at intake (receiving SAMM and not receiving SAMM) showed a **reduction in symptom severity** across domains on the Clinical Global Impressions (CGI) scale, with the most notable changes observed on positive and overall symptoms.



Model Description

The PIER model treats the earliest symptoms of mental illness. It was developed on a foundation of ongoing research that indicates that early mental illness can be markedly altered or reversed by earlier treatment. Through a combination of family psychoeducation, supported education and employment, and pharmacologic treatment, the PIER model has a powerful effect in reducing the symptoms that place a young person at risk for the onset and severe disabilities of mental illness. In addition to the PIER model's use of evidence-based treatments, the critical feature of this approach is community outreach by a clinical team to school professionals, general practitioners, pediatricians, and other key groups to educate and inform about the early signs of mental illness. PIER prioritizes the treatment of psychosis in order to reduce substance use disorders but offers specialized substance use disorder treatment if needed.

Model's Substance Use Disorder Treatment Elements

1. The PIER model assumes that substance misuse among people with a psychotic disorder is largely the result of the disorder. Emphasis in PIER is thus on addressing psychosis and improving functional recovery. Treatment of substance use is implemented as it relates to these aims. For example, family psychoeducation includes a discussion about substance use in the context of symptom reduction and functional improvement.
2. Substance use treatment within PIER is based on motivational interviewing and cognitive behavioral approaches and follows a harm reduction model.

Model #3: Portland Identification and Early Referral (PIER) Program

PIER manuals and other materials are available at <http://www.piertraining.com/resources/>.

Sample Implementation Strategies

According to the PIER program in Portland, Maine:

1. The program has consistently had a certified substance abuse counselor on staff to ensure continued capacity to treat substance misuse/disorders within the program.
2. The multifamily group approach includes systematic application of problem solving derived from cognitive behavioral therapy. If substance misuse is identified as an issue, it is focused on until the problem is resolved.

According to the PIER program in Delaware:

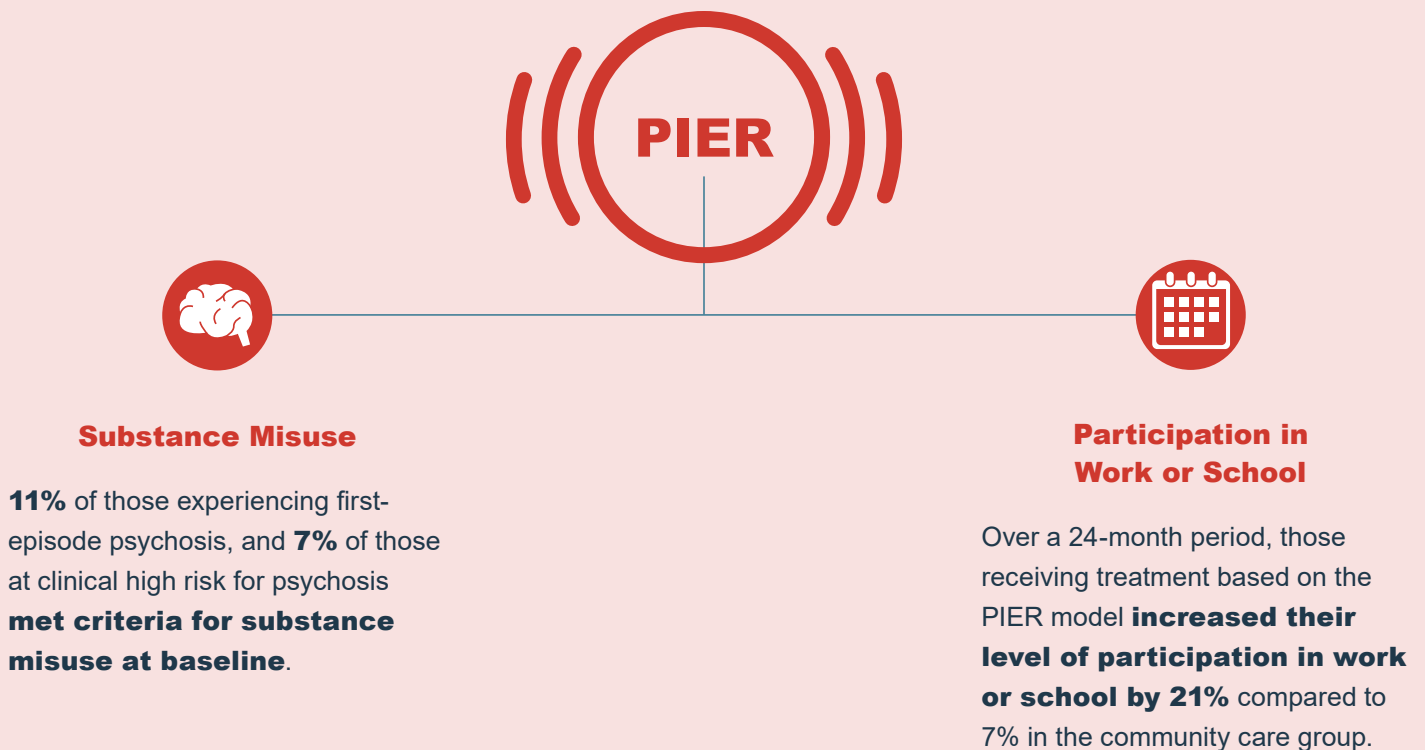
1. The National Outcome Measures (NOMS) instrument, which includes items on past 30 day use of substances, is used to identify people with current substance use at intake and to track progress over time.
2. Program staff use the Adolescent Community Reinforcement Approach (A-CRA),⁷ which is a behavioral intervention that aims to replace environmental contingencies supporting substance misuse with pro-social activities and behaviors supporting recovery. As part of this approach, clients are assisted with weighing the pros and cons of substance use and developing communication, problem solving, and relapse prevention skills.
3. The program includes a structured group program focused on prevention of substance misuse, called Towards No Drug Abuse (TND) (<https://tnd.usc.edu/>). Components of this program include building motivation/motivational interviewing, social conversation skills, and rational decision-making.

Sample Recovery Outcomes

1. PIER does not screen out people with substance misuse/disorder from the program, except in extreme circumstances.
2. PIER staff respect the autonomy of clients while helping them consider the pros and cons of substance use.
3. Staff use a non-judgmental approach to ensure that clients are comfortable talking about substance use.
4. During family psychoeducation, individuals who have made progress with reducing use can support others in their recovery by sharing their experiences.

Data from the Model

Based on the Early Detection and Intervention for the Prevention of Psychosis Program (EDIPPP) clinical trial,⁸ which tested the effectiveness of the PIER approach at six sites from 2007 to 2010:



Reference List

1. Roberts, L. J., Shaner, A., & Eckman, T. A. (1999). *Overcoming addictions: Skills training for people with schizophrenia*. New York: WW Norton & Co.
2. Godley, S. H., Meyers, R. J., Smith, J. E., Karvinen, T., Titus, J. C., Godley, M. D., ... Kelberg, P. (2001). *The Adolescent Community Reinforcement Approach for Adolescent Cannabis Users, Cannabis Youth Treatment (CYT) Series, Volume 4*.
3. McFarlane, W. R., Levin, B., Travis, L., Lucas, F. L., Lynch, S., Verdi, M., ... Spring, E. (2015). Clinical and functional outcomes after 2 years in the early detection and intervention for the prevention of psychosis multisite effectiveness trial. *Schizophrenia Bulletin*, *41*, 30-43.

Guidance for Implementing Evidence-Based Practices

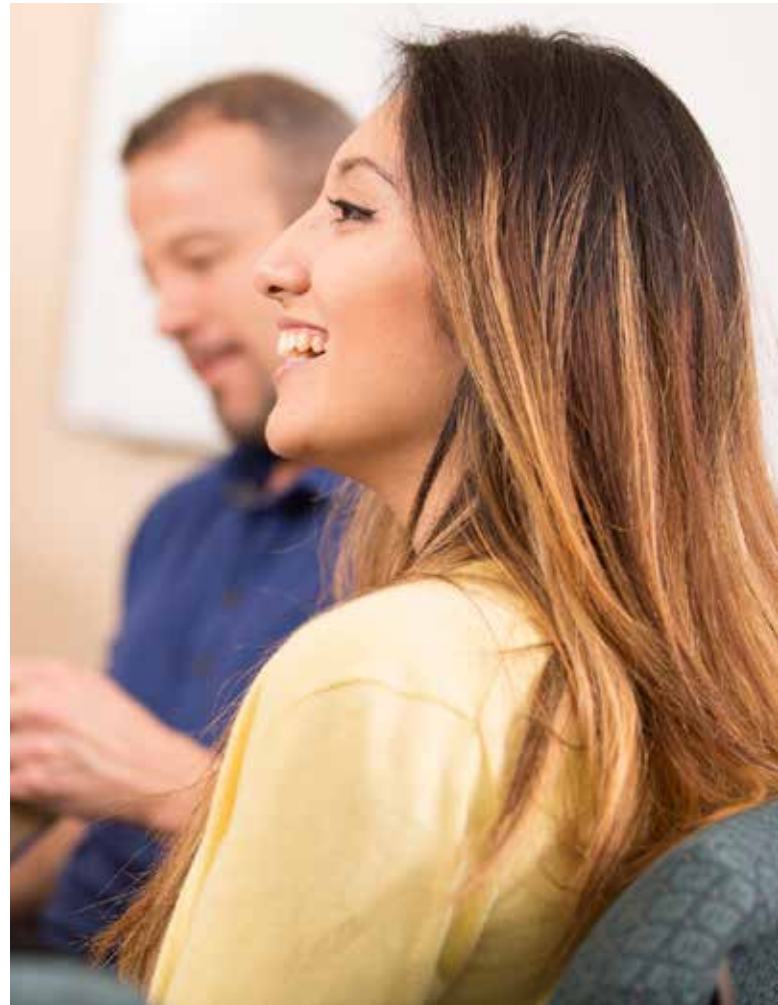
Prior chapters in this guide have given an overview of what is known about the course of substance misuse and substance use disorders (referred to throughout as “substance misuse/disorders”) in the context of first-episode psychosis services, what research tells us about the efficacy of specific interventions, and illustrations of different ways that Coordinated Specialty Care (CSC) models and programs have used the research findings to guide clinical practice. A common set of strategies to guide treatment for substance misuse/disorders in first-episode psychosis treatment programs has been identified.

Because the intersection of substance misuse and first-episode psychosis treatment is complex, programs guided by the different CSC models have used varied approaches to implement substance misuse/disorders interventions. The next step is to translate these experiences into practical guidance for implementing substance misuse/disorders interventions in real-world settings by clinicians and program administrators tasked with helping support recovery in young adults with first-episode psychosis and their families.

This chapter has two goals:

1. To describe implementation strategies that clinicians and programs can use to successfully offer substance misuse/disorders treatment within first-episode psychosis services; and

2. To identify common implementation barriers and potential solutions to address them.



Implementation Strategies and Tasks



Implementation Strategy #1 Create a program culture that supports treatment for substance misuse and substance use disorders

- Identify substance misuse/disorders as a treatment priority within first-episode psychosis services
- Consider the population served by the program and make sure the necessary treatment resources are available within the program or the surrounding community
- Integrate a harm reduction approach to substance misuse/disorders into first-episode psychosis services

There are a number of decisions that administrators and clinicians can make to create a program culture that supports treatment for substance misuse/disorders within first-episode psychosis services. A first task is for leadership of first-episode psychosis treatment programs to communicate the clear treatment need, and identify substance misuse/disorders as a treatment priority. Key messages to disseminate include:

- More than half of young adults with first-episode psychosis currently are or have been affected by substance misuse/disorders in the past;
- Evidence supports integrated early intervention services for these young adults; and
- Young adult treatment outcomes are better when services are provided by a team that understands first-episode psychosis and integrates school, work, family, and recovery services.¹

Addressing a problem as complex as substance misuse/disorders can be especially challenging for first-episode psychosis treatment programs challenged by time, limited resources, and other constraints. Nevertheless, it is critical that programs treating individuals experiencing first-episode psychosis prioritize substance use treatment identification and care and build treatment for substance misuse/disorders into the array of services offered by various members of the treatment team.

A second essential task is coordinating first-episode psychosis and specialty substance use disorder services to ensure integrated treatment across programs and build connections and referral relationships with community treatment programs based on program participants' needs and culture. Such linkages can augment treatment and provide more intensive or complementary services.

For example, clients of first-episode psychosis programs without the capacity to effectively treat severe substance use disorders that are affecting all aspects of a client's functioning (including tolerance and withdrawal as core symptoms) may be better served by initial enrollment in detoxification, inpatient, or residential substance use disorder treatment. First-episode psychosis programs located in communities with high rates of heroin use and opioid use disorder will need to have

- Overall, CSC models identify substance misuse/disorders as common issues within first-episode psychosis treatment and provide resources for programs in how to address them.

good referral channels to medication-assisted treatment programs to ensure that their clients have access to the most effective evidence-based treatment. Other community resources include self- and mutual-help programs, especially those with a focus on young adults and transition age youth. Individuals may best be served by specialized substance use disorder services coordinated with and by first-episode psychosis programs.

The third task is to integrate a harm reduction approach that promotes both reduction of substance use and abstinence as treatment goals. In treatment based on a harm reduction approach, the overall focus is on reducing negative consequences and supporting person-centered goals related to decreasing substance use. Administrators, clinicians, family members, and clients may all hold different beliefs about harm reduction versus abstinence, which can lead to misunderstandings and unclear expectations for treatment.

Given the complexity of first-episode psychosis and its treatment, it is important for programs and clinicians to embrace and incorporate harm reduction as a guiding model for treatment. Young adults with lower severity of substance misuse can learn skills for limiting the quantity and frequency of substance use and ensure no use during high-risk times (such as while driving or at school or work), and those with higher severity who are not yet willing to discuss abstinence might agree to reduction in the context of important recovery goals, potentially leading to increased motivation for change and future abstinence.



Implementation Strategy #2 **Utilize a quality improvement approach**

- Identify resources available to track services provided and ways to monitor the benefits and challenges of providing them
- Become educated on electronic medical records or other automated systems that your program can use to collect service use information

Current research does not provide robust support for a standardized set of practices for treating substance misuse/disorders in first-episode psychosis. Thus, programs offer a variety of services to clients and families. All programs should adopt a quality improvement approach to assess indicators of key treatment processes in order to track the services provided, analyze the pros and cons of these services, and improve treatment by implementing services that benefit clients and families.² This ongoing inquiry and self-examination allows programs to use their own experiences to identify what is working or not in their own treatment settings.

For a quality improvement approach to be successful, it is essential that programs collect data on the services offered, who uses these services, and service outcomes. Such data can help us understand which treatments work, which clients are benefiting, and which components of a program are not reaching clients or benefiting them. It is also an important way to advocate for more resources to address substance misuse/disorders. Programs can facilitate data collection in these ways:

- Integrate substance use measures as part of the electronic medical record with alerts that remind clinicians when to administer them and systems with built-in scoring and interpretation;

- Utilize mobile health applications or patient portal access to encourage clients to complete outcome measures; and
- Include assessments in automated forms that do not require additional time and effort to administer, enter, and score (a longer-term project that can help maintain the use of assessment over time).



Implementation Strategy #3 **Build staff confidence and capacity**

- Train program clinicians to assess and treat substance misuse/disorders
- Support clinicians as they work with young adults who are not motivated to change substance use
- Employ or refer to a Peer Specialist with lived experience of first-episode psychosis and co-occurring substance misuse/disorders

All clinicians in first-episode psychosis treatment programs should have basic training in assessing and treating substance misuse/disorders.

Basic skills should include using a brief set of measures to assess quantity and frequency of use, providing feedback and recommendations in a person-centered and nonjudgmental way, and engaging individuals in recovery-oriented discussions about the impacts of continued substance misuse/disorders on progress towards goals. Training should be augmented by hiring several clinicians who can lead and sustain a program's substance misuse/disorders treatment services or provide more advanced training or certification to existing staff.

Advanced training can include instruction in diagnostic interviewing so that the program has a clear understanding of current and lifetime substance use disorders across substances. It can also include training in motivational and cognitive behavioral strategies demonstrating

some evidence of effectiveness (see Chapter 2 of this guide). Advanced training could also include certification in treatment for chemical dependency (this may be required in order to provide substance use treatment in some states). Creating tiered expertise ensures that all clinicians can address substance misuse/disorders within first-episode psychosis services and that programs have specific expertise in addressing this common and impactful comorbidity.

A gap in the research literature on first-episode psychosis treatment is the impact of Peer Recovery Specialists (peer specialists) as part of the treatment team. Peer specialists are widely integrated within substance use disorder treatment services^{3,4} and have demonstrated positive outcomes.⁵ Evidence of the effectiveness of peer support services for adults with mental illnesses, particularly in areas such as hope, empowerment, and quality of life,⁶ suggests that peers can make valuable contributions to first-episode psychosis treatment teams.

Peers can work with individuals experiencing first-episode psychosis to reduce stigma and improve self-determination, health and wellness, communication with other members of the treatment team, illness management, and engagement in first-episode psychosis services.⁷ Peer specialists who have lived experience of both mental health challenges and substance misuse/disorders are particularly well-suited to support individuals in their recovery efforts, as they can share first-hand knowledge of the experience, demonstrate that recovery is possible, and facilitate connections with community-based resources. Family peer support also holds promise for engaging families in first-episode psychosis services, enhancing knowledge and caregiving skills, and promoting recovery.⁸ Mounting support for the peer specialist workforce⁹⁻¹² makes peers' inclusion on first-episode psychosis treatment teams increasingly feasible and encouraged.

4

Implementation Strategy #4 Assess and treat substance misuse and substance use disorders

- Assess substance misuse/disorders at the start of treatment and on a regular basis to guide treatment
- Use motivational and shared decision-making approaches
- Link substance misuse/disorder goals to the different components of first-episode psychosis services

Collecting self-report data from young people about their substance use and problems over time provides necessary clinical information that is central to treatment planning, beginning with the very first clinical encounter. Young adults entering first-episode psychosis treatment will have different levels of severity of substance misuse/disorder; some will make significant reductions in substance use in the early stages of first-episode psychosis treatment without the need for any additional targeted treatment of substance misuse/disorders. Those who do not reduce their substance use in response to generalized first-episode psychosis treatment should be offered targeted substance use interventions.

Many young adults experiencing first-episode psychosis may be hesitant or opposed to addressing co-occurring substance misuse/disorders. **Shared decision making (SDM)** can help clients feel comfortable talking about substance use in treatment without tension or discomfort. Shared decision making is a collaborative process in which the individual and provider actively share knowledge to identify a preferred treatment approach.¹³ In SDM, the provider can offer information about treatments, while the client is asked to clarify his/her values and preferences as an active participant in the decision-making process.¹⁴

It is critical to implement measures to assess substance use, both at the start of treatment and throughout the treatment process. Initial and ongoing assessment allows programs to track progress, target interventions, and allocate trained clinician time to clients who need it most.

- Programs can add screening measures for substance misuse/disorders to a program's intake process (Chapter 5 of this guide provides examples of screening and other assessment tools).
- Those with a positive score on a screening measure for substance misuse/disorders should next complete a review of DSM-5 criteria for recent substance use disorders.
- These assessments can be built into an existing intake process and administered monthly or quarterly as time permits. Most are self-report measures that can be filled out by clients as they wait for an appointment or can be administered via a computer or tablet.

Studies utilizing SDM tools with individuals with serious mental illness (SMI) suggest that their participation in decision-making is feasible and that they can make informed decisions regarding their treatment.^{15, 16} In their discussion of strategies to engage individuals with psychotic disorders in care, Kreyenbuhl and colleagues¹⁷ identified SDM interventions as especially promising and specifically identified young adults experiencing early psychosis as a population that would benefit from SDM approaches. These authors reviewed studies of SDM interventions in SMI and found positive outcomes including better adherence, self-management, and satisfaction.

Motivational approaches such as **Motivational Enhancement Therapy (MET)** and **Screening, Brief Intervention, and Referral to Treatment (SBIRT)** are also useful in

working with those who are ambivalent about change. MET is a brief intervention that helps individuals resolve ambivalence about substance use treatment and change. It involves assessment and feedback that encourages discussion of substance use, builds motivation, and allows for collaborative planning for change.¹⁸

Similarly, SBIRT¹⁹ involves assessment and feedback within a supportive and non-judgmental framework, and when used as part of an ongoing course of treatment, SBIRT can be applied to addressing first-episode psychosis and co-occurring substance misuse/disorders. SBIRT has been implemented in physical and mental health care settings that provide services to heavy or problem drinkers, including young adults.^{20,21} These programs utilize personalized feedback that is nonjudgmental, emphasizes personal responsibility for change, and offers individuals options for change.²²

All clinicians in first-episode psychosis treatment programs should be proficient in engaging in recovery-oriented discussions about the impacts of continued substance misuse/disorders on treatment goals. This allows clinicians to discuss substance use as part of their area of specialty within first-episode psychosis services, linking reductions in use to recovery goals of strong importance to the client. Although a young adult client with first-episode psychosis may not be interested in reducing substance use per se, he or she may be interested in reducing psychosis symptoms, re-engaging in school, getting a job, or establishing independence from parents.

All discussions with clients must be person-centered and respectful. If a client wants less discussion of substance use, the clinician should respect the client and put the topic on the “back burner” for some agreed-upon amount of time.

These topics are not just the domain of an addictions counselor or recovery coach – they are central to the work of psychiatrists, psychologists, nurses, counselors, Supported Employment and Education Specialists, and Peer Specialists who work with young adults as part of first-episode psychosis treatment. For example, a Supported Employment and Education Specialist can help a young person plan for a job interview and provide a negative urine sample; this links reduction in substance use with the goal of securing employment. A counselor working with a young person who wants to develop skills for coping with anxiety can initiate a discussion of strategies to deal with anxiety and test the strategies out to see if they are helpful.



Implementation Strategy #5 **Maintain the capacity of your program to assess and treat substance misuse and substance use disorders over time**

- Implement procedures to maintain knowledge on substance misuse/disorders within the program
- Seek out ongoing consultation and/or join a first-episode psychosis learning collaborative

Once assessments are integrated into the program and clinicians trained, it is essential to maintain this knowledge and expertise within the program. This can be challenging when administrative champions are deployed to other programs, specially trained staff leave for other jobs, and funding sources that support training efforts become scarce. A program can help ensure continued capacity to assess and treat substance misuse/disorders by ensuring that all staff receive at least basic training in the assessment and treatment of substance misuse/disorders, making training and skill building in these areas a routine part of treatment team meetings, and prioritizing job candidates with

experience in providing substance use treatment when hiring new staff.

Any program's work will be enhanced by consulting and collaborating with others. Find other programs that are doing this work and talk to them regularly. If a program is based on a CSC model, consultation resources may be available. State-funded CSC programs often develop learning collaboratives offering continued training and implementation updates. Establish relationships with other programs and consumer groups focusing on substance use disorders for continued learning; all parties can learn about first-episode psychosis and keep up to date on treatment advances.

Common Implementation Barriers and Ways to Address Them

The process of implementing integrated treatment for substance misuse/disorders within the context of first-episode psychosis services will vary from state to state, community to community, and program to program. There are no one-size-fits-all solutions for the barriers included in this section. The likely barriers, however, are common not only to programs serving people experiencing first-episode psychosis and substance misuse/disorders but also to many programs employing multiple coordinated interventions. The following includes suggestions on how programs may begin to address these barriers.

Barrier #1: Financing Coordinated Specialty Care

Financing CSC programs can be difficult because it requires funding an array of services that are not typically covered in full by either public or private health insurance.²³ Medicaid can pay for therapy, case management, family support and education, psychopharmacology, and, in some states, supported employment and education or peer support. However, Medicaid does not cover community outreach or other program-related costs.²⁴ Private insurance is

highly important for young people experiencing first-episode psychosis as many can remain on their parents' health insurance plans until age 26. However, private insurance focuses almost exclusively on fee-for-service payments that generally do not cover supported employment/education, case management, and some other services. While parity for mental health and substance use disorder treatment has improved, these individuals are most vulnerable.

With other limitations from commercial health insurance plans, many states rely on additional funding sources such as the Mental Health Block Grant Ten Percent Set Aside, Section 1115 Medicaid demonstrations, or state funds for early intervention and CSC programs. States that develop 1115 demonstration waivers can bundle all costs related to the program into a rate. While these waivers are complicated to develop, there is expertise in states that have created bundled rate programs. As more CSC programs are implemented, it is likely that successful financing will include integrating different funding sources to fully cover the range of evidence-based first-episode psychosis services. Fortunately, the field is working towards finding solutions to these challenges.²⁵

Potential solutions:

- Work with local jurisdictions to make use of and bridge available funding streams, given the differences in funding regulations and resources across states.
- Ensure that plans for sustainability are developed before grant and contract funding ends.
- Where applicable, a state Medicaid Authority can support first-episode psychosis programs by approving state Medicaid plan expansions and/or demonstration waivers to use Medicaid to cover needed CSC services.
- Funding for all behavioral health services has grown more complex as the trend towards integrated and holistic care accelerates. Many providers have become adept at accessing reimbursement from different sources to pay for complementary and coordinated services. Principles of braiding and blending funds for multicomponent services are transferable in

many cases. Developing expertise and gaining experience in handling funding from different sources is helpful for all provider agencies and necessary for sustaining a complex program such as CSC for first-episode psychosis and substance misuse/disorders.

- Starting in 2014, Congress expanded Mental Health Block Grant funding for Early Psychosis Coordinated Specialty Care programs nationwide, and the 2016 21st Century Cures Act continued that commitment
- In 2017, the Interdepartmental Serious Mental Illness Coordinating Committee (ISMICC) issued recommendations that explicitly included national dissemination of early psychosis screening and intervention

Barrier #2: Availability of trained staff for first-episode psychosis substance misuse/disorder program

Even programs with the best intentions fail if they are not staffed by individuals who understand their conceptual foundations and have the practical experience necessary to implement program goals. Yet staff training can be costly and is not always easily accessible. In some cases, providers may need specific licenses to treat substance misuse/disorders, adding another layer of difficulty to staffing these programs.

Potential solutions:

- Emphasize training for program leadership on the importance of integrated substance use treatment for individuals with first-episode psychosis.
- Learn from other programs in your state or region implementing CSC for those experiencing first episode psychosis and substance misuse/disorders. Refine understanding of staffing needs.
- Understand state licensing requirements for providers offering mental health and substance use treatment services.

Innovative programs are most likely to succeed when staffed by creative, committed clinicians who are eager to learn from others tackling similar problems. Because the solutions offered here draw on the expertise of different disciplines, it is important for teams to be able to engage regularly and share their observations and experiences.

Barrier #3: Limited research to guide practice

A slim evidence base currently exists for substance misuse/disorders intervention in the context of first-episode psychosis. Although research has led to the tremendous growth of CSC, much work remains to identify the best ways to address serious comorbidities such as substance misuse/disorders. How can we document successes and failures in addressing these issues?

Potential solutions:

- Connect with other programs in your state or region implementing CSC for those experiencing first-episode psychosis and substance misuse/disorders and begin to create a community of practice.
- Form partnerships with academic institutions or researchers to promote demonstration projects or other activities that will expand the evidence base.
- Gather information about practices that are useful in clinical settings to build the research base for these interventions, and share observations with others working in the field regionally and nationally.

Barrier #4: Environmental considerations

A program's geographic location or the characteristics of the population it serves can make treatment of first-episode psychosis and substance misuse/disorders challenging. Particularly in rural environments, there may be limited availability of qualified staff who know how to effectively address substance misuse/disorders.

Potential solutions:

- Ensure treatment program leadership understand the regional culture/local issues related to mental health and substance use and build staff consensus on how staff will address these local issues.
- Create and maintain collaborative relationships with substance use treatment providers, housing organizations, and education or employment specialty programs, if they exist in the region.
- Leverage non-traditional resources such as telehealth to make connections that would otherwise be physically impossible.
- Engage Peer Specialists to help establish cultural or community connections.

Reference List

1. Correll, C. U., Galling, B., Pawar, A., Krivko, A., Bonetto, C., Ruggeri, M., ... Kane, J. (2018). Comparison of early intervention services vs treatment as usual for early-phase psychosis: a systematic review, meta-analysis, and meta-regression. *JAMA Psychiatry, 75*, 555-565.
2. Agency for Healthcare Research and Quality. (2013). Module 4. Approaches to Quality Improvement. Content last reviewed May 2013. Retrieved from <https://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/mod4.html>.
3. Chapman, S. A., Blash, L. K., Mayer, K., & Spetz, J. (2018). Emerging roles for peer providers in mental health and substance use disorders. *American Journal of Preventive Medicine, 54*, S267-S274.
4. Gagne, C. A., Finch, W. L., Myrick, K. J., & Davis, L. M. (2018). Peer workers in the behavioral and integrated health workforce: opportunities and future directions. *American Journal of Preventive Medicine, 54*, S258-S266.
5. Bassuk, E. L., Hanson, J., Greene, R. N., Richard, M., & Laudet, A. (2016). Peer-Delivered Recovery Support Services for Addictions in the United States: A Systematic Review. *Journal of Substance Abuse Treatment, 63*, 1-9.
6. Bellamy, C., Schmutte, T., & Davidson, L. (2017). An update on the growing evidence base for peer support. *Mental Health and Social Inclusion, 21*, 161-167.
7. Salzer, M. S., Schwenk, E., & Brusilovskiy, E. (2010). Certified peer specialist roles and activities: results from a national survey. *Psychiatric Services, 61*(5), 520-523.
8. Levasseur, M. A., Ferrari, M., McIlwaine, S., & Iyer, S. N. (2019). Peer-driven family support services in the context of first-episode psychosis: Participant perceptions from a Canadian early intervention programme. *Early Intervention in Psychiatry, 13*, 335-341.
9. Heinsen, R. K., Goldstein, A. B., & Azrin, S. T. (2014). Evidence-Based Treatments for First Episode Psychosis: Components of Coordinated Specialty Care. Retrieved from www.nimh.nih.gov/health/topics/schizophrenia/raise/nimh-white-paper-csc-for-fep_147096.pdf.
10. Centers for Medicare and Medicaid Services. (2007). State Medicaid Director Letter, SMDL 07-011. Retrieved from <https://downloads.cms.gov/cmsgov/archived-downloads/SMDL/downloads/SMD081507A.pdf>.

11. National Institute of Mental Health. (2019). Strategic Plan for Research. Retrieved from <https://www.nimh.nih.gov/about/strategic-planning-reports/index.shtml>.
12. Kaufman, L., Brooks, W., Steinley-Bumgarner, M., & Stevens-Manser, S. (2012). Peer specialist training and certification programs: A national overview. *University of Texas at Austin. Center for Social Work Research, 10*, 07-011.
13. Center for Mental Health Services. (2010). *Shared Decision-Making in Mental Healthcare: Practice, Research, and Future Directions*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
14. Adams, J. R. & Drake, R. E. (2006). Shared decision-making and evidence-based practice. *Community Mental Health Journal, 42*, 87-105.
15. Hamann, J., Langer, B., Winkler, V., Busch, R., Cohen, R., Leucht, S., ...Kissling, W. (2006). Shared decision making for in-patients with schizophrenia. *Acta Psychiatrica Scandinavica, 114*, 265-273.
16. Hamann, J., Leucht, S., & Kissling, W. (2003). Shared decision making in psychiatry. *Acta Psychiatrica Scandinavica, 107*, 403-409.
17. Kreyenbuhl, J., Nossel, I. R., & Dixon, L. B. (2009). Disengagement from mental health treatment among individuals with schizophrenia and strategies for facilitating connections to care: a review of the literature. *Schizophrenia Bulletin, 35*, 696-703.
18. Marijuana Treatment Project Research Group. (2004). Brief treatments for cannabis dependence: findings from a randomized multisite trial. *Journal of Consulting and Clinical Psychology, 72*, 455-466.
19. Babor, T. F., McRee, B. G., Kassebaum, P. A., Grimaldi, P. L., Ahmed, K., & Bray, J. (2007). Screening, Brief Intervention, and Referral to Treatment (SBIRT): toward a public health approach to the management of substance abuse. *Substance Abuse, 28*, 7-30.
20. Fachini, A., Aliane, P. P., Martinez, E. Z., & Furtado, E. F. (2012). Efficacy of brief alcohol screening intervention for college students (BASICS): a meta-analysis of randomized controlled trials. *Substance Abuse Treatment, Prevention, and Policy, 7*, 40.
21. Harris, S. K., Louis-Jacques, J., & Knight, J. R. (2014). Screening and brief intervention for alcohol and other abuse. *Adolescent Medicine: State of the Art Reviews, 25*, 126-156.
22. Guard, A. & Rosenblum, L. (2008). *Alcohol screening and brief intervention: A guide for public health practitioners*. National Highway Traffic Safety Administration, US Department of Transportation.
23. Shern, D., Neylon, K., Kazandjian, M., and Lutterman, T. (2017). Use of Medicaid to Finance Coordinated Specialty Care Services for First Episode Psychosis. Retrieved from www.nasmhpd.org/sites/default/files/Medicaid_brief_1.pdf.
24. Rosenblatt, A. & Goldman, H. H. (2019). Early intervention and policy. In K. V. Hardy, J. S. Ballon, D. L. Noordsy, & S. Adelsheim (Eds.), *Intervening Early in Psychosis: A Team Approach*. (pp. 45-58). Washington, D.C.: American Psychiatric Association Publishing.
25. Dixon, L. B. (2017). What it will take to make coordinated specialty care available to anyone experiencing early schizophrenia: getting over the hump. *JAMA Psychiatry, 74*(1), 7-8. Retrieved from <http://www.namincmetro.org/wp-content/uploads/2016/11/WhatItWillTakeToMakeCoordinated-SpecialtyCareAvailabletoAnyoneExperiencingEarlySchizophreniaJAMACommentary.pdf>.

Resources for Implementation, Evaluation, and Quality Improvement



This chapter provides an array of resources about evidence-based practices and programs to address first-episode psychosis and substance misuse/disorders. These resources include:

1. screening and assessment instruments;
2. service delivery guidelines for diagnoses and various treatment and practice approaches;
3. implementation of Coordinated Specialty Care; and
4. informational resources for young adults and families.

The goal of this resource list is to help clinicians and programs find tools, trainings, assessments, and interventions that they can integrate into existing services. This list is not exhaustive but aims to provide some key resources in several areas of greatest relevance to first-episode psychosis programs.

Screening and Assessment

Essential to effective practice for young adults with first-episode psychosis and co-occurring substance use disorders is the use of screening and assessment

instruments for timely identification of symptoms, diagnosis, and appropriate treatment and services. Below are examples of screening and assessment tools that treatment providers can use in their practice.

Mental Health and Substance Use

- [DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult](#)

This self-report measure from the American Psychiatric Association assesses mental health domains that are important across psychiatric diagnoses. Domains VII and XIII pertain to Psychosis and Substance Use.

- [SAMHSA-HRSA Center for Integrated Health Solutions](#)

The Screening Tools page of the SAMHSA-HRSA website provides a variety of screening resources about specific mental health and substance use conditions.

Symptomatology and Functioning

- [Modified Colorado Symptom Index \(CSI\)](#)

This is a 14-item self-report scale of the frequency of positive mood and cognitive symptoms.¹

- **Social and Role Dysfunction in Psychosis and Schizophrenia**

This is a clinician-rated tool that assesses social and role functioning. Each question is scored on a 10-point scale and captures current functioning, lowest functioning over the past year, and highest functioning over the past year.²

Substance Use

- **Addiction Severity Index (ASI)**

The ASI is a semi-structured interview designed to address seven potential problem areas: medical status, employment and support, drug use, alcohol use, legal status, family/social status, and psychiatric status.

- **Alcohol Use Disorders Identification Test (AUDIT)**

This is a 10-item screening questionnaire assessing excessive drinking and alcohol use disorders.³

- **American Society of Addiction Medicine (ASAM)**

The screening and assessment tools page on the ASAM website provides multiple assessment tools and resources on substance use for providers.

- **CAGE-AID**

The CAGE-AID is a four-item screening questionnaire on substance use.

- **CRAFFT Screening Interview**

The CRAFFT Screening Interview is a behavioral health screening tool designed for individuals under the age of 21 and is intended to identify adolescents who may have simultaneous risky alcohol and other drug use disorders.⁴

- **Drug Abuse Screening Test (DAST-10)**

Condensed from the 28-item DAST, this 10-item self-report questionnaire measures the degree of consequences related to drug abuse.⁵

- **Fagerström Test for Nicotine Dependence (FTND)**

The Fagerström Test for Nicotine Dependence is a standard instrument for assessing the intensity of physical addiction to nicotine.⁶

- **National Institute on Drug Abuse (NIDA)**

The Clinical Assessment of Substance Use Disorders page on the NIDA website provides screening, evaluation, and referral tools for addressing the needs of individuals with substance use disorders.

- **NIDA Modified ASSIST Drug Use Screening Tool**

This tool allows for a review of DSM-5 criteria for recent substance use disorders for individuals who have a positive screen for substance abuse.

- **PhenX Toolkit: Substances – 30-Day Frequency**

This tool measures the frequency of drug use over 30 days.⁷

- **Simple Screening Instrument for Substance Abuse (SSI-SA)**

The SSI-SA is a 16-item screening instrument designed to capture a broad spectrum of signs and symptoms for substance use disorders.⁸

- **Substance Abuse and Dependence – Past Year – Alcohol**

This interview protocol includes questions about alcohol experiences in the past 12 months.⁹

- **UNCOPE**

The UNCOPE consists of six questions to identify risk for abuse and dependence for alcohol and other drugs.

Service Delivery Guides

Giving treatment providers the necessary tools and resources to effectively deliver treatment is critical to the successful implementation of programs and services as well as enhancing treatment engagement among clients. Below are examples of practice guides to help treatment providers learn about early warning signs of psychosis, identify appropriate interventions and treatment, promote culturally appropriate practices, and keep up with evidence-based research and practice principles on various treatment approaches.

Assessment and Diagnosis

- [Age and Developmental Considerations in Early Psychosis](#)
This issue brief explores how to recognize and tailor early psychosis programs to developmental challenges and opportunities to maximize program effectiveness.
- [Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide](#)
Published by the National Institute on Alcohol Abuse and Alcoholism, this guide offers providers resources for identifying youth with alcohol-related problems.
- [Early Interventions in Psychosis: A Primer](#)
This online course is designed for professionals working with teens and young adults who are interested in learning about the early warning signs of psychosis, appropriate early intervention treatment and supports, and strategies for successfully engaging youth in effective, recovery-oriented care.
- [Substance-Induced Psychosis in First Episode Programming](#)
An overview of the epidemiology, presentation, diagnosis, and treatment of individuals with substance-induced psychosis who may be seen in first-episode psychosis programs.

Treatment Approaches and Techniques

- [Addiction Technology Transfer Center \(ATTC\) Network](#)
The ATTC Network is an international, multidisciplinary resource for professionals in the addictions treatment and recovery services fields.
- [Cognitive Behavioral Therapy for Psychosis \(CBTp\)](#)
This factsheet from the National Association of State Mental Health Program Directors (NASMHPD) provides an overview of the principles and practices of CBTp, with case examples illustrating each of its key components.
- [Integrated Dual Disorder Treatment \(IDDD\) – Clinical Guide](#)
This training booklet is part of a consulting and training process on Integrated Dual Disorder Treatment from the Center for Evidence-Based Practices (CEBP) at Case Western Reserve University.
- [Optimizing Medication Management for Persons Who Experienced a First Episode of Psychosis](#)
This is a shared decision-making tool for making decisions regarding use of medications.
- [NAVIGATE's Individual Resiliency Trainer Manual](#)
This manual includes modular-based interventions for helping individuals identify and enhance their strengths and resiliency, increase their illness management skills, and learn skills to increase their success in achieving personal goals. Module 10 focuses on substance use.
- [SAMHSA's Integrated Treatment for Co-Occurring Disorders Evidence-Based Practices \(EBP\) KIT](#)
This toolkit gives practice principles for integrated treatment for mental illness and substance use disorders and offers advice from successful programs.

- **Screening, Brief Intervention, and Referral to Treatment (SBIRT)**

SBIRT is an evidence-based practice used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs. SBIRT can be used as part of a continued course of treatment for first-episode psychosis and co-occurring substance misuse/disorders. It provides a supportive and nonjudgmental framework for discussing risky substance use, its consequences, and person-centered reasons for reducing risky use to improve health.

- **Supported Education for Persons Experiencing a First Episode of Psychosis**

This issue brief is a primer on the rationale for and techniques involved in delivering supported education services in first-episode psychosis programs.

Improving Cultural Competence

- **APA's Cultural Formulation Interview (CFI)**

The CFI is a short questionnaire that aims to enhance clinical understanding and decision making by clarifying key aspects of the presenting clinical problem from the point of view of the client or other members of the client's social network.

- **National Center for Cultural Competence (NCCC) Self-Assessments**

The NCCC at Georgetown University offers a variety of organizational self-assessments to evaluate cultural and linguistic competence. Results of such self-assessments may be used to summarize strengths and areas for growth to advance cultural and linguistic competence, strategic planning, and program quality improvement.

- **Treatment Improvement Protocol: Improving Culture Competence**

This resource is intended to help clinicians, practitioners, and behavioral health organizations make progress toward cultural competence.

Coordinated Specialty Care Implementation

Over the last decade, Coordinated Specialty Care (CSC) has gained support as an evidence-based treatment model for first-episode psychosis. Examples of guidelines and briefs to assist organizations in implementing and adapting CSC are provided below.

- **Coordinated Specialty Care for People with First Episode Psychosis: Assessing Fidelity to the Model**

This issue brief reviews the importance of measuring implementation fidelity, lists the core components of CSC to monitor via fidelity measures, suggests potential data sources for measuring these core components and reviews how data from these sources can be aggregated into measures of CSC fidelity.

- **Early Intervention in Psychosis Virtual Resource Center**

NASMHPD Early Intervention in Psychosis virtual resource center is designed to provide reliable information for practitioners, policymakers, individuals, families, and communities to foster more widespread adoption and utilization of early intervention programming for persons at risk for or experiencing a first episode of psychosis.

- **First Episode Psychosis Fidelity Scale (FEPS-FS)**

This 32-item fidelity scale covers assessment and monitoring, pharmacotherapy, psychosocial treatments, and team structure and function.

- **First Episode Psychosis Programs: A Guide to State Expansion**

The National Alliance on Mental Illness (NAMI) created a guide to help state organizations facilitate implementation of CSC programs across the country.

- **[Trainings on First-Episode Psychosis](#)**
NASMHPD website has a variety of online trainings available for clinicians, providers, and families on early psychosis and coordinated specialty care.
- **[Webinars on Topics Related to First-Episode Psychosis](#)**
NASMHPD has assembled a variety of informational webinars on a number of topics, including first-episode psychosis and treatment.
- **[OnTrack Training Materials](#)**
OnTrack NY provides a variety of manuals and an interactive tool to estimate costs and staffing for CSC Teams.
- **[Treating Affective Psychosis and Substance Use Disorders within Coordinated Specialty Care](#)**
This brief describes several adaptations and recommendations that CSC teams may consider to enhance the effectiveness of the specialized treatment mode.

- **[SAMHSA’s Early Serious Mental Illness Treatment Locator](#)**
Provides a confidential and anonymous source of information for persons and their family members who are seeking treatment facilities in the United States or U.S. Territories for a recent onset of serious mental illnesses such as psychosis, schizophrenia, bipolar disorder, and other conditions.

Tip and Fact Sheets on First-Episode Psychosis

- **[NAVIGATE Family Education Program](#)**
Pages 86-180 of this manual include “JUST THE FACTS” educational handouts for family members and relatives of individuals who have experienced first-episode psychosis.
- **[NIMH First Episode Psychosis Fact Sheet](#)**
This resource offers facts about psychosis and descriptions of treatments used in Coordinated Specialty Care.
- **[RAISE Resources for Patients and Families](#)**
This tool provides descriptions of first-episode psychosis, treatment options, and strategies for living with psychosis.
- **[Understanding First Episode Psychosis: Caregiver Tip Sheet](#)**
This fact sheet provides an overview of psychosis among youth and young adults. It offers guidance on how to provide support and recommendations for treatment.
- **[Understanding First Episode Psychosis: Young Adult Tip Sheet](#)**
This fact sheet offers young adults information on living with psychosis. It discusses the causes of psychosis and approaches to treatment.

Informational Resources for Young Adults and Families

Providing young adults and their families with supports and resources about first-episode psychosis may help alleviate the fear, stress, and uncertainty that they experience. Information about early psychosis symptoms, substance use, availability and access to treatment, different treatment approaches, and strategies for living with psychosis may help young adults and their families get timely and appropriate treatment.

Treatment Locator

- **[EASA’s Program Directory of Early Psychosis Intervention Programs](#)**
A directory of early intervention programs for psychosis within the United States.

Tip and Fact Sheets on Substance Use

■ [DrugFacts](#)

The National Institute on Drug Abuse has developed these brief, plain language research summaries on different types of drugs.

■ [Mind Matters](#)

This youth-focused series developed by the National Institute on Drug Abuse includes scientific information about different types of drugs.

Recovery Stories

■ [OnTrackNY Video Library](#)

This online video library from OnTrackNY features first-hand accounts from individuals who have experienced first-episode psychosis and videos from families and OnTrackNY team members.

Reference List

1. Conrad, K. J., Yagelka, J. R., Matters, M. D., Rich, A. R., Williams, V., & Buchanan, M. (2001). Reliability and validity of a modified Colorado Symptom Index in a national homeless sample. *Mental Health Services Research, 3*, 141-153.
2. Cornblatt, B. A., Auther, A. M., Niendam, T., Smith, C. W., Zinberg, J., Bearden, C. E. et al. (2007). Preliminary findings for two new measures of social and role functioning in the prodromal phase of schizophrenia. *Schizophrenia Bulletin, 33*, 688-702.
3. Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. *Addiction, 88*, 791-804.
4. Knight, J. R., Sherritt, L., Shrier, L. A., Harris, S. K., & Chang, G. (2002). Validity of the CRAFFT substance abuse screening test among adolescent clinic patients. *Archives of Pediatrics and Adolescent Medicine, 156*, 607-614.
5. Skinner, H. (1982). The drug abuse screening test. *Addictive Behavior, 7*(4), 363-371.
6. Heatherton, T. F., Kozlowski, L. T., Frecker, R. C., & Fagerstrom, K. (1991). The Fagerstrom test for nicotine dependence: a revision of the Fagerstrom Tolerance Questionnaire. *British Journal of Addiction, 86*, 1119-1127.
7. Center for Behavioral Health Statistics and Quality. (2015). *2015 National Survey on Drug Use and Health (NSDUH): CAI Specifications for Programming (English Version)*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
8. Center for Substance Abuse Treatment. (1994) *Simple screening instruments for outreach for alcohol and other drug abuse and infectious diseases*. Rockville (MD): Substance Abuse and Mental Health Services Administration . Report No.: (SMA) 95-3058.
9. National Institute on Alcohol Abuse and Alcoholism (NIAAA). (N.d.). *National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III)*. Rockville, MD: National Institutes of Health. Alcohol use Disorder and Associated Disabilities Interview Schedule-5 (AUDADIS-5), Section 2B - Alcohol Experiences (Questions 1b and 3b).

Appendix 1: Acknowledgments

This publication was developed with a significant contribution from Melanie Bennett, Ph.D. and Elizabeth Thomas, Ph.D.

The guidance is based, in part, on the thoughtful input of the Planning Committee and the Expert Panel on First-Episode Psychosis and Co-Occurring Substance Use Disorders from March through September 30, 2019. A series of Planning Committee meetings was held virtually over a period of several months, and the expert panel meeting was convened in North Bethesda, Maryland, by the Substance Abuse and Mental Health Services Administration (SAMHSA).

Planning Committee

Melanie Bennett, Ph.D.

University of Maryland School of Medicine

Steven Dettwyler, Ph.D.

Substance Abuse and Mental Health Services Administration

Preethy George, Ph.D.

Westat

Jennifer O'Brien, Ph.D.

Westat

Carter Roeber, Ph.D.

Substance Abuse and Mental Health Services Administration

Elizabeth Thomas, Ph.D.

Temple University

Sarah Vidal, Ph.D.

Westat

Expert Panel

Susan Azrin, Ph.D.

National Institute of Mental Health

Melanie Bennett, Ph.D.

University of Maryland School of Medicine

Lisa Dixon, M.D., M.P.H.

Columbia University Vagelos College of Physicians and Surgeons

Joel Dubenitz, Ph.D.

Office of the Assistant Secretary for Planning and Evaluation

Howard Goldman, M.D., Ph.D.

University of Maryland School of Medicine

Arron Hall, CPRS

Family Services, Inc.

Kraig Knudsen, Ph.D., LISW

Ohio Department of Mental Health and Addiction Services

Ted Lutterman

National Association of State Mental Health Program Directors Research Institute

Ryan Melton, Ph.D.

EASA Center for Excellence

Kim Mueser, Ph.D.

Boston University

Tara Niendam, Ph.D.

University of California, Davis

Abram Rosenblatt, Ph.D.

Westat

Sean Roush, OTD, OTR/L, QMHP

Pacific University

Adina Seidenfeld, Ph.D.

Children's Hospital of Philadelphia

David Shern, Ph.D.

National Association of State Mental Health Program Directors

Justin Smith, LPC

Family & Children's Services

Elizabeth Thomas, Ph.D.

Temple University

Kristina West, M.S., LLM

Office of the Assistant Secretary for Planning
and Evaluation

SAMHSA Staff

Tanvi Ajmera-Karpe, M.A.

Center for Mental Health Services

Darrick Cunningham, LCSW, BCD

Center for Substance Abuse Treatment

Steven Dettwyler, Ph.D.

Center for Mental Health Services

Carter Roeber, Ph.D.

National Mental Health and Substance Use
Policy Laboratory

Photos are for illustrative purposes only.
Any person depicted in a photo is a model.

Publication No. PEP19-PL-Guide-3

SAMHSA
Substance Abuse and Mental Health
Services Administration