Treating Affective Psychosis and Substance Use Disorders Within Coordinated Specialty Care

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Introduction

Coordinated Specialty Care (CSC) is an evidence-based early-intervention treatment for young adults experiencing non-affective first episode psychosis (FEP). This multidisciplinary team approach encompasses a suite of evidence-based practices that have been shown to reduce relapses and improve outcomes for individuals experiencing schizophrenia spectrum disorders. The services are recovery-oriented and emphasize shared decision-making, assertive outreach and engagement, and cultural competency in an effort to engage young people and their supports in an effective way. Furthermore, CSC is offered through a person-centered, collaborative, and youth-oriented framework to help people achieve meaningful goals and reduce disability. The CSC team strives to convey hope for recovery and views the person diagnosed with FEP as the central member of the team’s efforts. Individuals’ life goals, aspirations, and ambitions drive treatment planning; therefore, none of the treatment components are mandatory (Heinssen, Goldstein, & Azrin, 2014).
Evidence-based treatments provided by CSC programs include:

1. Evidence-based psychopharmacology, which emphasizes prescribing the lowest effective doses of antipsychotic medications with the fewest side effects.
2. Health, wellness, and primary care coordination meant to address cardio-metabolic factors associated with antipsychotic medications by providing education on nutrition and exercise, assessing health using routine lab work, and coordinating with other medical professionals.
3. Case management aimed at helping individuals and families meet concrete needs and connect to outside resources.
4. Psychotherapy that is generally supportive, with a focus on engagement, collaboration, and improved resiliency, in addition to cognitive behavioral treatments to target symptoms of psychosis and related comorbidities.
5. Family support and education consistent with individual and family preferences to promote family involvement across all treatment components and address family needs.
6. Supported education and employment using the Individual Placement and Support (IPS) model to assess work and school interest, facilitate rapid placement, and provide supports as needed.
7. Peer support services (in some programs) to help enhance engagement and peer connections and promote self-advocacy (Heinssen, Goldstein, & Azrin, 2014).

These services are provided in a flexible, developmentally sensitive way for an average of two years. Team members are able to work with participants in their home or community or in the clinic as needed, with an ability to modify the frequency and intensity of services provided by the various team members to respect participant preferences.

Early-intervention services for FEP have been supported by a combination of international research studies and implementation efforts carried out over the past 20 years. FEP has been broadly implemented in Australia, the United Kingdom, Scandinavia, and Canada (Heinssen, Goldstein, & Azrin, 2014). In the United States, the National Institute of Mental Health (NIMH) funded the Recovery After an Initial Schizophrenia Episode (RAISE) initiative. Launched in 2008, RAISE aimed to develop and test a treatment model to reduce relapse and long-term disability for individuals experiencing early schizophrenia. NIMH required that the model be ready for rapid deployment if found effective (Heinssen, Goldstein, & Azrin, 2014; Bello et al., 2017). Two RAISE studies, the RAISE Early Treatment Program (ETP) and the RAISE-IES, laid the groundwork for larger-scale implementation of CSC programs (Dixon et al., 2015; Kane et al., 2015). In 2014, House of Representatives Bill 3547 provided an increase of 5 percent to the Community Mental Health Services Block Grant (MHBG) program, an allocation targeted at evidence-based programs for individuals experiencing early psychosis. The funds were maintained in 2015 and doubled in fiscal year 2016. This funding allowed for the widespread national implementation of FEP programs (Heinssen, Goldstein, & Azrin, 2014; Bello et al., 2017).

As the implementation of CSC programs has been expanding throughout the United States, the differences across implementation efforts have become more evident.
Decisions regarding specific implementation practices appear to be influenced by population density and incidence of FEP, community-based needs, available workforce, involvement of state-level leadership and coordination efforts, and financial circumstances. Clinical trials have demonstrated the effectiveness of CSC treatment for individuals ages 15 to 25 who have been diagnosed with non-organic, non-affective, non-substance-induced psychotic disorders and have started experiencing symptoms within five years of receiving care; however, some programs try to reach a broader sector of the population. Some programs have decided to expand the age range, others focus on any transition-age youth demonstrating high levels of service use, and others have broadened the diagnostic criteria for program inclusion. One important permutation is the expansion of the eligibility criteria to include individuals experiencing affective psychosis as a way to address the real-world needs of participants in certain communities and enhance the sustainability of the programs. Additionally, it also has become evident across communities that individuals with substance abuse comorbidities are the most challenging to treat. CSC treatment manuals included limited information about how to best serve these two diagnostic groups. This brief will delineate several adaptations and recommendations that CSC teams may consider to enhance the effectiveness of the specialized treatment model.

Considerations for Treating Affective Psychosis

Affective Psychosis Diagnostic Features

The umbrella term “non-affective psychosis” refers to schizophrenia spectrum disorders such as schizophrenia, schizoaffective disorder, schizophreniform disorder, brief psychotic disorder, psychosis not otherwise specified, or delusional disorder. Generally, CSC programs are tasked with the rapid identification and evaluation of individuals experiencing psychotic features such as hallucinations, delusions, and grossly disorganized or catatonic behaviors to get young people connected to treatment as soon as possible. The shorter the duration of untreated psychosis (i.e., the time between the first experience of psychotic symptoms and connection to indicated treatment, typically antipsychotic medication), the greater the likelihood of young individuals attaining desired outcomes (Dixon et al., 2015; Kane et al., 2015). Programs that accept individuals with affective psychosis also are concerned with shortening the duration of untreated psychosis. For programs that serve individuals with both affective and non-affective psychosis, the eligibility determination process is somewhat easier since one of the more challenging aspects for CSC teams is differentiating between schizophrenia spectrum and mood disorders early in the course of illness. “Affective psychosis” is a term used to describe symptoms of psychosis that are present with mood episodes and most typically involve bipolar disorders or major depressive disorder.

Bipolar disorders are defined by the experience of manic and depressive episodes. The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; APA, 2013) characterizes a manic episode as:
A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy, lasting at least 1 week and present most of the day, nearly every day (or any duration if hospitalization is necessary). During the period of the mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behavior: inflated self-esteem or grandiosity, decreased need for sleep, more talkative than usual or pressure to keep talking, flight of ideas or subjective experience that thoughts are racing, and distractibility, as reported or observed, increase in goal-directed activity or psychomotor agitation, and excessive involvement in activities that have a high potential for painful consequences. The mood disturbance must be severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features present. (p. 127)

Hypomania is defined as a distinct change in mood and increase in energy present most of the day, nearly every day, that lasts at least four days and is accompanied by an unequivocal change in functioning that is not characteristic of the person, in addition to observable behavioral changes that are not severe enough to cause marked impairment, hospitalizations, or psychosis (APA, 2013, p. 124).

A major depressive episode is characterized by a distinct two-week period where there is an identifiable change from previous functioning. During this period of time, five or more of the following symptoms must be present (at least one of the symptoms is either depressed mood or loss of interest or pleasure):

- Depressed mood most of the day nearly every day as indicated by subjective report or observations of others; markedly diminished interest or pleasure in activities; significant weight loss or decrease or increase in appetite nearly every day; insomnia or hypersomnia; psychomotor agitation or restlessness (observable); fatigue or loss of energy; feelings of worthlessness or inappropriate guilt; diminished ability to think, concentrate, or make decisions; recurrent thoughts of death, suicidal ideation, or a plan for committing suicide. The symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning. (APA, 2013, pp. 125–126)

For a diagnosis of bipolar I disorder, the criteria for at least one manic episode must have been met. A diagnosis of bipolar II disorder requires the presence of at least one hypomanic episode and at least one major depressive episode. Both of these diagnoses require that the occurrence of the mood episodes “is not better explained by schizoaffective disorder, schizophreniform disorder, schizophrenia, delusional disorder, or other psychotic disorders.” Major depression with psychotic features requires the presence of a major depressive episode, accompanied by mood-congruent or mood-incongruent psychotic features or with catatonia (APA, 2013, p. 127).
Prevalence Rates and Illness Course

It is estimated that up to 3 percent of adolescents experience bipolar mood disorders, and of these, 50–60 percent experience psychosis. The symptoms and associated hospitalizations can have significant negative effects on adolescent development by limiting the achievement of developmental milestones such as attaining independence, pursuing work and school goals, and engaging in peer and intimate relationships (Kessler, Chiu, Demler, & Walters, 2005). Although the mean age of onset is 25 years, one study found that 59 percent of respondents reported that their first symptoms occurred in childhood and adolescence (Hirschfeld et al., 2003). More than 50 percent of individuals who receive a diagnosis early in life exhibited a more debilitating and chronic illness course, associated with increased substance abuse, comorbid diagnoses, decreased medication adherence that leads to more rapid relapse rates, increased suicidal behaviors, decreased rates of functional recovery, and increased rates of unemployment and school dropout (Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2003, Perlis et al., 2004; Tohen et al., 2000; Lish, Dime-Meenan, Whybrow, Price, & Hirschfeld, 1994). Like individuals experiencing non-affective-psychosis, young people with affective psychosis demonstrate poor illness insight, which might decrease the likelihood that they engage effectively in mental health services. Although there is less research about major depression with psychotic features than about bipolar disorders, it has been estimated that between 10 and 20 percent of individuals diagnosed with major depressive disorder experience psychotic symptoms. Furthermore, these individuals appear to be at an increased risk for developing bipolar disorder later in life and experience increased symptom severity, decreased functional recovery, and longer depressive episodes with more frequent recurrence of psychotic symptoms (Wijkstra et al., 2015).

Advantages of Early Intervention in Affective Psychosis

Together, these findings point to the importance of early-intervention services for young adults experiencing first episode affective psychosis. Just as effectively treating non-affective psychosis is associated with improved symptoms, functional outcomes, and quality of life, it is likely that reducing the duration of untreated mania and depression with psychotic features also may be associated with decreased relapse rates and improved outcomes (Kane et al., 2015; Conus & McGorry, 2002). There are several ways in which the current treatment elements of CSC programs directly benefit individuals with affective psychosis. For instance, several studies have demonstrated that early intervention can help prevent suicide (Angst & Marneros, 2001). Medications and CBT interventions tend to be more effective in the early stages of the illness, and there is a decreased likelihood of experiencing financial, employment, relationship, and self-esteem problems related to experiencing multiple episodes for individuals treated early (Coryell, Solomon, & Leon, 1998; Scott, 2001). Young adults experiencing their first episode of affective psychosis face similar issues related to treatment engagement as those experiencing their first episode of non-affective psychosis. Strategies for effectively engaging individuals and enhancing the treatment alliance are important because for both schizophrenia spectrum and mood disorders, measures of therapeutic alliance were found to be the most reliable indicators of better medication adherence, decreased likelihood of treatment dropout, and better functional outcomes (Frank &
Gunderson, 1990). Additionally, a focus on promoting medication adherence and monitoring health-related variables and focusing on psychoeducation, resiliency, and relapse prevention—while at the same time supporting family involvement and emphasizing recovery—are paramount for both populations (Swartz & Frank, 2001). As with non-affective psychosis, it is important that the services are delivered in a flexible, person-centered manner that accounts for the individual's developmental stage and how the disorder may impact appropriate socio-developmental functioning.

Adaptations to CSC Evidence-Based Treatment Services

Prescribing Practices

There are several adaptations and enhancements to CSC treatment that should be considered when treating first episode affective psychosis, primarily related to prescribing practices and psychosocial interventions. Space precludes an exhaustive discussion of evidence-based pharmacotherapy for these disorders. Briefly, recommended prescribing practices for bipolar disorders indicate that mania should be treated first with lithium, divalproex, or an atypical antipsychotic medication. Mixed episodes should be treated first with divalproex or an atypical antipsychotic medication. On the other hand, depressive episodes should be treated first with quetiapine, olanzapine/fluoxetine combination, or lamotrigine (Connolly & Thase, 2011). Psychopharmacological treatment for depressive disorder with psychotic features has been significantly understudied; however, Wijkstra and colleagues (2015) found evidence that combining an antidepressant with an antipsychotic is more effective than antidepressant monotherapy, more effective than antipsychotic monotherapy, and more effective than placebo.

Engagement

As described earlier, an emphasis on assertive engagement is one of the primary components of CSC programs. When working with individuals who are experiencing affective mood disorders, it is important to understand the symptom-related barriers that negatively impact engagement and threaten the therapeutic alliance. It is recommended that therapists adopt a flexible thinking style and employ a youth-oriented, collaborative therapeutic technique. Because this is the first episode, individuals with mood disorders sometimes have extended periods of recovery between mood episodes. Young people with this course might not be convinced that treatment is necessary. Additionally, because of the mood fluctuations, individuals might experience mania as a welcome respite from long periods of depression. It is not uncommon that individuals prefer to be less reliant on the treatment team between mood episodes, when functional recovery is attained (Bromet et al., 2011). This consideration also is relevant for supported employment and education services. For example, during periods of euthymia, significant modifications might be required when providing follow-along supports. According to Macneil and colleagues (2009, pp. 29–33), factors that promote engagement are very much in line with those that are already utilized by CSC programs
treating non-affective FEP, with the added ability to adapt the strategies to the person’s stage and variations in their experience of illness.

**Psychosocial Interventions**

Once again, there is significant overlap between the psychosocial interventions included in many of the CSC treatment manuals and those recommended for treating mood disorders. In both approaches, there is an emphasis on formulation-based cognitive behavioral therapy aimed at reducing risk and managing behavioral issues during the acute phase, providing cognitive restructuring and behavioral experiments during the intermediate phase, and focusing on relapse prevention during the final phase of treatment. Of note, because both mania and depression are associated with unhelpful or inaccurate thinking patterns that maintain mood states, cognitive restructuring that addresses negative thoughts and dysfunctional beliefs can be a more important part of treatment than when treating non-affective psychosis.

The approaches diverge in the specific targets of CBT treatment. For instance, during the acute illness phase of non-affective psychotic treatment, increasing environmental stimulation is usually an important strategy that is used to involve individuals in their surroundings and increase their feelings of connectedness with their social networks regardless of symptomatology. In treating individuals with mood disorders, this is only appropriate during a depressive episode. When someone is experiencing a manic episode, the approach must emphasize reducing environmental stimuli to help ameliorate the intensity of the manic episode (Beynon, Soares-Weiser, Woolacott, Duffy, & Geddes, 2008). Another important strategy includes completing life events charts that help highlight how specific negative life events (e.g., stressful life events, substance abuse, or inconsistencies in taking medications) are associated with the onset of mood symptoms, as well as what characterizes and contributes to periods of well-being. Treating individuals with mood disorders effectively requires that special attention be paid to the cyclical nature of the illness course and specific treatment approaches are adapted accordingly.

**Strategies for Treating Mania and Depression**

Mood monitoring is an example of a strategy that is useful for individuals experiencing affective psychotic disorders because it encourages the individual to notice the associations between mood patterns and response to treatment (Macneil, Hasty, Conus, Berk, & Scott, 2009, p. 79). The act of tracking mood fluctuations on a regular basis provides the young person with real-world data that they can utilize to start understanding their illness trajectory and learn to anticipate upcoming episodes. Theoretically, this practice is assigned to individuals as a task that they complete on their own time between therapy sessions; then, during in-person meetings, patterns are determined based on data collected. However, in practice, it is common for young people not to follow through with this homework assignment. Some have found that alternatively, when this assignment is completed collaboratively during psychotherapy sessions, it becomes a more effective intervention. During this exercise, the individual should be asked to identify events, distressing thoughts, and any other potential
contributors to mood shifts. Across time, the person develops an understanding of idiosyncratic cyclical behaviors that trigger manic or depressive episodes and can then work on identifying effective coping strategies (Jones, 2004).

Manic episodes are frequently characterized by impulsive behaviors, including impulsive spending, sexual promiscuity, and increased substance use. When working with someone undergoing a manic episode, Macneil and colleagues (2009, p. 78) make these additional recommendations:

Encourage the delay of major life decision by at least 48 hours; have the individual keep a running account of ideas that can be revisited when the mood symptoms have stabilized; encourage avoidance of substances such as caffeine, drugs and alcohol; avoidance of risky situations and model using decisional balance tools when making decisions; encourage using forms to prioritize activities; encourage avoidance of giving away possessions until mood stabilizes; practice asking the opinion of two trusted friends before starting new projects; and identify calming situations to be used for coping with symptoms and help reducing stimulation.

It also is possible that family members, significant others, and providers will have to collaborate to help the individual manage and cope with significant consequences resulting from decisions made while manic. This might include resolving interpersonal difficulties, problem-solving financial hardships, or working through guilt and shame associated with engaging in uncharacteristic and sometimes dangerous behaviors. Cognitive therapy and mindfulness-based interventions could be helpful. There is some data to suggest that this combination of treatments might reduce anxiety and help with emotion regulation (Miziou et al., 2015).

Interpersonal and social rhythm therapy (IPSRT) has been found to have a significant impact on decreasing relapses of mood episodes by regulating sleep cycles and daily routines (Goldstein et al., 2014). The underlying theory is based on the idea that psychosocial stress disrupts sleep and social routines of young adults experiencing mood disorders, which, in turn, leads to the onset of mood episodes. There is evidence that “two-thirds of individuals report social rhythm disruptions eight weeks prior to the onset of a manic episode” (Macneil et al., 2009, p. 101). Sleep hygiene and circadian rhythms are important targets for early intervention. Several studies have found a significant relationship between abnormalities in sleep and circadian rhythms and the onset of mood episodes. A complicating factor is that from a biological and developmental perspective, sleep changes during adolescence are normative and socially encouraged (Goldstein et al., 2014). For instance, during adolescence, individuals tend to stay up later for various reasons, including studying and connecting with friends through texting and social media. As their social lives begin developing and they start gaining more independence, adolescents and young adults might have more erratic sleep patterns, such as sleeping late on weekends and then rapidly switching to a different sleep schedule during the week when they are attending school or work. Furthermore, students in high school and college also might have atypical schedules related to the competing demands of classes, social activities, and employment responsibilities, which can promote erratic sleep patterns.
Treatments such as IPSRT and IPSRT-A (adapted to address the needs of adolescents) help the individual identify and seek out others who can help the young person maintain a more stable routine and sleep schedule during a period of time that is intrinsically defined by instability, change, and growth (Hlastala & Frank, 2006). Adolescents and young adults typically have many important interpersonal relationships with parents, teachers, coaches, and peers, with varying levels of intensity that are deemed critically important. Furthermore, it is common to undergo frequent and significant role transitions across various life domains during this period. For instance, individuals shift from relying on parents or family of origin for primary emotional and financial support to developing independence and taking necessary steps toward achieving school and career goals. Sexuality and relationship changes also are typical during this period of time as individuals explore their preferences and move from group-focused peer interactions to dyadic relationships (Hlastala & Frank, 2006). Hence, it is important to focus on social skills, problem solving, and communication skills to help adolescents navigate complex relationships and interpersonal conflicts effectively. Similarly, coping skills for managing different activity levels and responsibilities that may interact with manic or depressive mood episodes are crucial.

Providers should work with the young person to identify and practice strategies that promote sleep hygiene (e.g., avoiding daytime naps, avoiding stimulants, creating a calm and non-stimulating sleeping environment, promoting exercise, etc.; Macneil et al., 2009, p.103; Goldstein et al., 2014; Hlasala & Frank, 2006). Although adolescents who have a lot of social demands may not readily accept these strategies, using a person-centered and creative approach to increase motivation and encourage program participants can help balance participation in important peer activities with self-care practices.

**Treating Cognition**

Cognitive impairment is one of the defining features of schizophrenia, and for those who experience it, the impairment can sometimes be global, pervasive, and severe. There is significant evidence that using cognitive remediation, an evidence-based skills training intervention, as part of a multi-element treatment approach for schizophrenia can significantly improve functional outcomes (Wykes, Huddy, Cellard, McGurk, & Czobor, 2011). Many early-intervention CSC programs now incorporate cognitive remediation as one of the treatment components for FEP. In mood disorders, a more complex presentation of cognitive impairment may occur. An emerging literature is focused on describing and understanding cognitive impairment in bipolar disorder. Consistent findings indicate cognitive deficits associated with bipolar disorder, and it seems that these deficits become more prevalent and severe as people experience more affective episodes (Burdick et al., 2015). For some people, the cognitive difficulties are absent or directly tied to the experience of depression or mania. For others, especially those who experience psychosis, the impairment seems to be present even when in remission from mood episodes and has been associated with increasingly negative outcomes (Burdick et al., 2014; Burdick, Ketter, Goldberg, & Calabrese, 2015). A meta-analysis performed by Bora, Yücel, and Pantelis (2010) found that individuals who experienced bipolar disorder with psychotic features performed worse than individuals diagnosed with a
bipolar disorder without psychosis on four out of six cognitive domains. These domains included planning and reasoning, working memory, verbal memory, and processing speed. These findings suggest that treating cognition in individuals presenting with affective psychosis might aid in their recovery.

One study examined the effects of a cognitive remediation program in a sample of individuals diagnosed with bipolar disorder (Veeh, Kopf, Kittel-Schneider, Deckert, & Reif, 2017). The 12-week program consisted of a skills group and a computer-assisted program delivered in 90-minute sessions. Although this study included a small sample, the individuals in the cognitive remediation group demonstrated significant cognitive improvement compared to the control group. Providers in CSC programs might consider enhancing the treatment model to include strategies for assessing and treating cognitive health. Because not every person will present with these symptoms, being able to assess the presence of cognitive impairment is a good first step. Whenever possible, connecting people to a structured, restorative cognitive remediation programs is one approach. However, if the resources are not available for a computer-based training program, then being able to deliver compensatory cognitive remediation approaches that teach specific skills and strategies to accomplish cognitive tasks in everyday activities also might be beneficial. These strategies can be paired with other psychosocial interventions and vocational and employment supports for maximal effects.

Working with Families

CSC programs devote a great deal of time to engaging and working closely with families. Family involvement helps program participants achieve better outcomes, particularly since many individuals still reside with their families. A great deal of research has demonstrated the effectiveness of family work in mood disorders (Miklowitz et al., 2004). Miklowitz and colleagues (2008) have developed an intervention, Bipolar Disorder: A Family-Focused Treatment Approach, which targets the specific issues that families might experience when trying to support the young person diagnosed with a psychotic mood disorder. It is important to highlight that the treatment strategies delineated in CSC treatment manuals for working with families with non-affective psychosis are applicable to working within the context of affective psychosis. This includes a focus on psychoeducation, communication skills, and problem-solving strategies. However, note that higher levels of “expressed emotion”—a term used to describe criticism, hostility, emotional overinvolvement, and negative or conflictual family relationships—are associated with a higher relapse rate in individuals diagnosed with mood disorders than in those diagnosed with schizophrenia (Miklowitz, Goldstein & Nuechterlein, 1995). Additionally, there are data suggesting that in adolescents experiencing mood disorders, low maternal warmth is associated with a 4.1 times increased likelihood of relapse. Individuals with bipolar disorders report higher rates of perceived stigmatization in their families compared to in the workplace (Geller, Craney, & Bolhofner, 2002; Morselli & Elgie, 2003). In this population, studies have found a 64.8 percent reported rate of family history of mental illness and a 45 percent rate of a current family member diagnosed with bipolar disorder (Hirschfeld, Lewis, & Vornik, 2003; Morselli & Elgie, 2003). Therefore, it is important to assess and meet the needs of the family members who also may be experiencing periods of mania and depression. When
providing communication skills training, it is recommended that families are taught “how to express positive feelings,” “active listening,” “making positive requests for change,” and “expressing negative feelings about specific behaviors” (Miklowitz, Goldstein, & Nuechterlein, 1995). Other strategies that provide guidance on appropriate parenting to teach families the essentials of mood monitoring also are recommended to help ease their anxieties and help with relapse prevention (Macneil et al., 2009, p. 116). Working with families is multidimensional and requires a great deal of flexibility and empathy from the treatment team. However, if these issues are addressed effectively, family members can become important allies by helping to generalize treatment strategies in the home environments, provide collateral information, and—more important—provide supports to an individual’s long-term recovery.

In summary, CSC programs have many of the required treatments for working with young persons diagnosed with affective psychosis. Nonetheless, there are important considerations and adaptations that teams can consider to increase the likelihood that individuals achieve positive treatment outcomes. These are specifically important in the areas of prescribing practices, engagement, cognitive behavioral strategies, and work with families. In general, it is important to remember the episodic nature of mood disorders and tailor the interventions accordingly. Providers also should keep in mind that overall, individuals with affective psychosis may present with periods of euthymia when functional recovery is attained; across time, these individuals may show better illness course than those individuals diagnosed with schizophrenia. Yet, there is a great deal of overlap between affective and non-affective psychotic presentations, and these adolescents and young adults can derive significant benefits from receiving early-intervention services.

Considerations for Treating Substance Abuse Comorbidities

Diagnosing Substance Use Disorders

The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; APA, 2013, p. 227) identifies 12 drug classes leading to substance abuse-related disorders. These include alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics, anxiolytics, stimulants, tobacco, and other unknown substances. Diagnostic classification is divided between substance use disorders and substance-induced disorders. Substance use disorders result from the negative consequences of continued and frequent substance use. Consequences are not immediate but occur over time as the addiction progresses. Substance-induced disorders refer to the immediate effects of a substance (i.e., intoxication) and the immediate effects of discontinuing its use (i.e., withdrawal). Possible substance-induced disorders include substance-induced psychosis, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive-compulsive and related disorders, sleep disorders, sexual dysfunctions, delirium, and neurocognitive disorders.
Diagnoses of substance use disorders are based on the total number of symptoms present from a list of 11 possible symptoms. These include:

1) taking the substance in larger amounts or for longer than you meant; 2) wanting to cut down or stop using the substance but not managing to; 3) spending a lot of time getting, using, or recovering from use of the substance; 4) cravings and urges to use the substance; 5) not managing to do what you should at work, home or school, because of the substance use; 6) continuing to use, even when it causes problems in relationships; 7) giving up important social, occupational or recreational activities because of substance use; 8) using substances again and again even when it puts you in danger; 9) continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance; 10) needing more of the substance to get the effect you want (tolerance); and 11) developing of withdrawal symptoms, which can be relieved by taking more of the substance. The severity of the substance abuse disorder can be categorized depending on the number of symptoms reported by the individual; mild (two-three), moderate (four-five) and severe (more than six). (APA, 2013, p. 481)

Prevalence Rates in FEP and Illness Course

Substance use disorders are common in individuals with schizophrenia (Dixon, 1999). Cannabis and alcohol specifically are highly prevalent in individuals experiencing FEP. One study found that 44 percent (n= 357) of individuals enrolled in a specialized FEP treatment program met diagnostic criteria for substance abuse/dependence, and individuals with earlier symptoms onset demonstrated significantly higher rates of cannabis use than persons with later onset (Mastrigt, Addington, & Addington, 2004). Another study that prospectively examined 103 individuals with FEP indicated that 53 percent received a substance abuse diagnosis, with cannabis (42 percent) and alcohol (30 percent) identified as the most frequently misused substances. Lambert and colleagues (2005) examined a sample of 643 individuals admitted to the Early Psychosis Prevention and Intervention Centre (EPPIC) in Australia and found that 62 percent of individuals presented with substance use disorders at baseline and 74 percent had lifetime prevalence.

Although many studies have found high rates of substance use disorders in individuals with FEP, reductions in use after initiation of treatment is reported for many individuals. A review of the literature performed by Wisdom, Manuel, and Drake (2011) found that 50 percent of individuals who use substances stop altogether or significantly reduce their use after experiencing a first episode of psychosis and engaging in specialized treatment services, even when these specialized services did not directly target substance use. One study found that a large proportion of individuals seemed to reduce their use within the first six weeks of engaging in services (Wisdom, Manuel, & Drake, 2011). In single-blind studies where substance abuse treatment was provided as part of the early-intervention services (e.g., sometimes highly specialized CBT treatment for cannabis use and other times psychoeducation about substances and health), no group differences were found in abstinence or reduction rates, although reductions were generally observed for both groups (Wisdom, Manuel, & Drake, 2011; Edwards...
et al., 2006; Madigan et al., 2013). In non-randomized trials, individuals have reported reduced use in 3, 6, and 18-month assessments (Carr, Norman, & Manchanda, 2009). On the other hand, there seems to be a sub-group of individuals who continue to use substances heavily even after receiving specialized FEP treatment. For example, 26 percent of individuals receiving treatment from the EPPIC program, which does not have a specific substance abuse treatment component, persistently used substances throughout treatment, while 34.5 percent of participants had no substance use disorders during treatment and 39.4 percent decreased or stopped using substances (Wisdom, Manuel, & Drake 2011; Lambert et al., 2005). By the end of 18 months of treatment, 40 percent of individuals continued to have substance use disorders, even if they had decreased amount of use. Together, these studies highlight that for one group of individuals, even the most basic interventions can contribute to reduced substance use. However, for another group, substance use may persist throughout FEP treatment. More work is needed on the effective integration of substance use treatment into FEP programs since significant and consistent substance use is associated with poorer outcomes in FEP.

Substance use disorders in FEP are associated with a more complex and severe illness course. These comorbidities become a barrier to recovery and have been associated with increased hospitalizations, relapse rates, treatment dropout, increased positive symptoms, more medical problems, and homelessness (Wade et al., 2006; Schmidt, Hesse & Lykke, 2011; Lambert et al., 2005; Harrison et al., 2008). An important distinction is that heavy substance use was significantly related to inpatient hospital admission even when controlling for age, gender, psychotic disorder diagnosis, duration of untreated psychosis, and medication adherence. It also was associated with increased relapse rates (64 percent for heavy users compared to 38 percent for mild users). Both of these groups were more likely to experience a psychotic relapse compared to individuals who did not use (Wade et al., 2006). Even when substance abuse treatment is delivered as part of an early-intervention program, cannabis users are consistently found to have worse outcomes. One study found that cannabis users had more positive symptoms and greater levels of depression compared with non-users at the one-year follow-up mark (Addington & Addington, 2007). A second study found that those who did not stop using cannabis had higher relapse rates, even when remaining 100 percent adherent to antipsychotic medications (Faridi, Joober, & Malla, 2012). Individuals who stop using cannabis during their first episode of psychosis attain better outcomes (Gonzáles-Pinto et al., 2009). It is evident that although there is a group of individuals who stop using substances early in treatment without significant intervention, those who are not able to do so experience deleterious effects; therefore, every effort must be made to address substance abuse in treatment.

**Treatment Recommendations**

Given the high prevalence of substance abuse found in young adults with FEP, making substance use treatment one of the essential components of CSC programs is important. Seamlessly integrating mental health and substance abuse services together is the desired strategy. At the same time, limited data supporting the effectiveness of highly specialized substance abuse interventions for reducing use in the heaviest substance users might partially explain why this is one aspect of care that providers find challenging.
General Treatment Principles

There is no doubt that substance use treatment should be offered by CSC programs as part of early intervention. At the same time, it is important to remember that because engagement is one of the most important components of CSC programs, shared decision-making can be a powerful tool for having initial discussions with the young person and his/her family about substance abuse. Providers can share information about difficulties and negative outcomes associated with substance use and also share that those individuals who are able to stop have been shown to do better than individuals who continue to use. These collaborative discussions will help everyone decide if substance use should be one of the primary targets of treatment. In doing this, it is essential that the treatment team respect the individual’s preferences and values, even if they directly conflict with the providers’ opinions, to maintain the treatment alliance.

There are some general principles for providing substance abuse treatment that providers should adhere to within CSC programs. Substance abuse treatment should always be provided in an integrated and seamless way alongside other treatments in a way that addresses both the psychosis and the substance use comorbidity. Therefore, it is not something for which teams should refer individuals to adjunctive outside providers for treatment. Additionally, it is important that providers maintain a positive, reinforcing, supportive, and nonjudgmental stance that is focused on addressing barriers to treatment engagement rather than advising individuals to stop using substances or requiring abstinence for program participation. It is highly important that the treatment strategies used are broad and collaborative, directly match the individual’s stage of change, and focus on motivational enhancement and skills-building. This is consistent with the principles and strategies recommended by the Integrated Dual Disorder Treatment (IDDT), an evidence-based practice for individuals dually diagnosed with serious and persistent mental illness and a substance use disorder (Drake et al., 2001).

Substance Use Assessment

There are many factors that can contribute to an individual’s decision to use substances, as well as the associated behaviors they engage in regularly. From the outset, providers should consider that experimenting with drugs and alcohol is developmentally normative for most young adults. Frequently, substance use takes a prominent role as adolescents begin the process of self-discovery through limit-testing, risk-taking, individuation from caregivers, and peer connections. Furthermore, it is important to administer an initial assessment that helps capture a clear and nuanced depiction of the individual’s substance use. This should include the quantity, frequency, and types of substances used and should encourage the young person to share specific reasons for use and personal thoughts about change.

A qualitative study that interviewed participants enrolled in an early-intervention program who had experienced a first episode of psychosis and were primarily cannabis users found four key factors that contribute to substance use behaviors (Lobbana et al., 2010). One key factor was the extent to which substance use was seen as normal.
within their communities and among peers. The second factor distinguished attributions that individuals used regarding initiating and maintaining substance use behaviors. Some individuals identified internal attributions, which were characterized by an active personal choice that included gathering information, considering pros and cons, and believing the substance enhanced social interactions. Others identified external attributions, which consisted of being influenced by others. A third factor was changes in life goals (e.g., beliefs about health, increased disposable income, or close family relationships). The fourth factor was individual beliefs about the relationship between mental health and drug use. It is possible that exploring some of these factors within treatment settings might give providers added insight into the various ways in which internal and external factors are reinforcing substance use for each individual. By speaking to program participants and their supportive networks, providers should aim to develop an understanding of individual proximal and distal factors that might contribute to substance use, as well as internal and external barriers to change. Asking more in-depth questions will not only help inform treatment strategies but also should help clarify treatment goals and strengthen the therapeutic alliance much more than providing initial psychoeducation.

This type of discussion also will provide a platform for identifying and discussing the young person’s ambivalence about their substance use and whether more intense and focused treatment is indicated. If the individual is communicating ambivalence to the treatment team, one helpful initial strategy might involve a detailed discussion of the ambivalence the young person is experiencing, enhanced by decisional balance exercises that help delineate the pros and cons of the situation, with an emphasis on establishing a relationship with the young person and increasing motivation.

**Substance Abuse Treatment Strategies**

The recommendations for substance abuse treatment for young adults experiencing psychosis are drawn from Prochaska and DiClementi’s Transtheoretical Model of Change (TTM; 1982), Integrated Dual Disorders Treatment (IDDT; Drake et al., 2001), and *Behavioral Treatment for Substance Abuse in People with Serious and Persistent Mental Illness* (BTSAS; Bellack, Bennett, & Gearon, 2007). For instance, there are several critical components that are recommended by IDDT that overlap with the clinical components of CSC. These include staged interventions that are delivered based on the individual’s treatment stage; assertive outreach strategies that target engagement; motivational interventions that help clients move through the stages of change; individual or group therapy where individuals can acquire skills; involvement of social supports within the treatment; utilizing a long-term perspective and allowing enough time for behavioral changes to occur; providing comprehensive services attuned to an individual’s broad-based life goals; and being culturally competent when delivering the intervention (Drake et al., 2001).

When it comes to substance abuse treatment, it is important that the individual’s stage of change determine the treatment goals. Then, the strategies and interventions used with young people should reflect the agreed-upon treatment goals. Individuals who present in the pre-contemplation stage likely are not considering their substance use as a problem and are spending most of the time sharing the positive aspects of their
substance use or discussing other reasons for coming to treatment. Therefore, at this stage, it might be helpful to focus on discussing or evaluating any negative effects associated with substance use and whether any positive life changes might result from modifying use. The provider should be non-confrontational and directive at the same time. This involves providing clear feedback and advice, along with negotiating treatment goals and working together to problem-solve any barriers to treatment.

Individuals in the contemplation stage are willing to discuss the negative consequences associated with using substances and are actively weighing these against the positive consequences. These individuals are not convinced that change is required at this point. Because ambivalence is central to this stage of change, providers can facilitate discussions that highlight the benefits of change. During this phase, providers should focus on expressing empathy, refrain from confronting statements that support use, elicit change talk that allows the individual to become aware of discrepancies in thinking about substances, and promote and support self-efficacy (Miller & Rollnick, 2014). In some instances, this might mean demonstrating respect for a person’s autonomy; having the ability to place their wishes and perspectives over what the provider believes is best; and putting aside personal fears, values, and choices so that individuals are able to make their own treatment choices (Bellack, Bennett, & Gearon, 2007, p. 16).

Additionally, there are several adaptations to these techniques that can be applied to help facilitate communication when working with individuals who are experiencing psychosis. For instance, for some individuals it is important to keep open-ended questions simple, concise, and precise. It can be helpful if providers consistently paraphrase and reduce the amount of reflections around negative or disturbing life experiences. Providers also might incorporate strategies for repetition, utilize simple verbal and visual materials, and allow enough time for the individual to respond, particularly when the young person is demonstrating cognitive difficulties. It also might be helpful to empathically anchor the individual's comments in a reality base as much as possible and spend time understanding how the individual perceives the connection between substance use and symptoms of psychosis.

During the action stage, individuals are actively trying to find effective strategies for reducing or stopping substance use altogether. During this phase, the principles of harm reduction become important because the amount of change that individuals are willing to make may vary widely from person to person and across time. The treatment strategies for this phase center around helping the individual build on their sense of self-efficacy by gradually reducing their substance use and, if attainable, prolonged abstinence in the long-term. There are various behavioral skills that can be practiced during this phase (Bellack, Bennett, & Gearon, 2007). Identifying challenging or risky situations and developing a plan for reducing use in those situations first might be one approach. Sometimes practicing coping skills to deal with difficult or stressful situations that trigger substance use might be highly beneficial. The provider also might engage in role-plays with the program participant to practice refusal skills in peer settings where substances are commonly available and the individual might feel pressured to use as a way to fit in and socialize. For example, a young person may not want to stop going to social events where they can socialize with friends, yet they might find some benefit in making a plan for limiting their drinking in these situations. Some individuals might use substances
as a way to cope with psychotic symptoms or other comorbidities; having an effective medication regimen can help enhance motivation to reduce use. Therapists can work closely with a prescriber and the program participant during this phase to determine if and how psychotropic medications might be helpful and make adjustments to these as indicated.

During the maintenance stage, individuals are attempting to remain consistent in the changes they have made, so working on relapse prevention is appropriate. This includes educating individuals about the frequency and possibility of lapses in abstinence, normalizing these experiences, and setting expectations. Providers spend time with individuals identifying strategies to help mitigate the lapses and avoiding relapses. They also encourage individuals to identify sources of support, avoid situations that might trigger use, and practice self-efficacy by utilizing previously learned coping skills that have been classified as effective in the given situation (Bellack, Bennett, & Gearon, 2007, p. 23).

For those individuals presenting with moderate or severe persistent substance use, it might be beneficial to provide a more structured substance abuse treatment that directly follows modules within the IDDT treatment manual or modules offered within the BTSAS manual. Each will need to be adapted for young people with FEP and will have its own set of pros and cons, which is important for a clinician to consider. For instance, IDDT is very flexible, the treatment principles are consistent with motivational enhancement, and the model integrates shared decision-making while paying attention to other life goals, such as employment and education, from the outset. However, it is not manualized, and a level of expertise in treating substance use is required of clinicians (Drake et al., 2001). The BTSAS, on the other hand, is a manualized approach that provides specific modules that clinicians can follow. However, the modules can be perceived as overly directive without a direct emphasis on work and school goals, which we know are important to individuals with FEP. Furthermore, the urinalysis contingency component of this model might not be effective for young people who are primarily using alcohol and marijuana. Nonetheless, utilizing some of the BTSAS structure, which will allow for a specialized focus on substance use, might prove beneficial for some young people.

The specific components of the BTSAS program include (Bellack, Bennett, & Gearon, 2007, pp. 20–24):

1. Motivational interviewing to work with ambivalence and enhance motivation to reduce use.
2. Structured goal-setting to identify realistic, short-term goals for decreased substance use.
3. Urinalysis contingency to provide immediate reinforcement for clean urine samples.
4. Social skills and drug refusal skills training to help individuals manage social pressure to use substances and provide experiences that promote self-efficacy.
5. Education focused on the particular dangers of substance use for young people with psychosis, to shift the decisional balance toward decreased use.
6. Relapse-prevention strategies that focus on developing skills for coping with urges and dealing with high-risk situations and lapses.
It is possible that this manualized treatment coupled with the other interventions offered by CSC programs (i.e., supported education and employment, psychopharmacology) might help support positive outcomes for some individuals. Medication-assisted treatments for substance use disorders can provide an effective and alternative method for managing cravings and help individuals reduce their substance use (Roman, Abraham, & Knudsen, 2011). Providers might find some helpful resources on the Substance Abuse and Mental Health Services Administration website (https://www.samhsa.gov/medication-assisted-treatment). Additional tools and resources for treating substance use disorders in FEP can be found in the Navigate Individual Resiliency Training Manual and OnTrackNY Recovery Coach Manual (Gingerich, Mueser, & Saade, 2014; Bennett & Bellack, 2015).

In conclusion, CSC programs are able to provide a suite of evidence-based practices that will allow teams to work effectively with young adults who are experiencing FEP, as well as with their families. However, it is important to keep in mind that the evidence for these specific treatment approaches is derived from the schizophrenia literature; these treatments have been proven to produce better outcomes in young people experiencing non-affective FEP, as well as mild to moderate substance use disorders. As implementation efforts expand and CSC programs broaden their eligibility criteria to provide services to individuals with affective psychosis, or when they enroll participants who have significant substance use comorbidities, the limitations of the current treatment model become apparent. CSC programs should make every effort to try to ensure that all of the young people they accept receive services tailored to individual needs. This includes developing the knowledge and skills required to adapt and optimize the treatment model to include the evidence base for treating these other diagnostic complexities.

REFERENCES


