Chapter 4—Approaches to Treatment

KEY MESSAGES

- Despite an increase in research into psychosocial treatments for people with stimulant use disorders, currently the only treatment with significant evidence of effectiveness is contingency management (CM).
- Other psychosocial treatments that have some support (especially if used in combination with CM) are cognitive–behavioral therapy/relapse prevention, community reinforcement, and motivational interviewing.
- There currently are no Food and Drug Administration-approved medications for stimulant use disorders, making it even more important that behavioral health and healthcare service providers understand and offer (or offer referrals for) CM or other psychosocial treatments.
- Other nonpharmacologic treatment approaches and strategies may also be useful for supporting recovery and improving health and well-being, including physical exercise, the Matrix model of neurobehavioral treatment, family or couples therapy, and mindfulness meditation.
- Clinicians need to promote harm reduction (e.g., through educating about needle exchange programs, offering naloxone, encouraging the use of fentanyl test strips) to people with stimulant use disorders who are not interested in formal treatment, because harm reduction techniques can help save lives.
- Many clinical management strategies have been developed to deal with clinical issues common in people with stimulant use disorders, like cognitive problems, intoxication issues, and co-occurring mental disorders.

During the early and mid-1980s, various unconventional remedies for substance use disorders (SUDs), including health foods, amino acids, hot tubs, electronic brain tuners, and other "New Age" treatments, emerged and disappeared. Research efforts to develop scientifically based treatments during this period often focused on behavioral techniques like contingency contracting (Anker & Crowley, 1982). Since these early efforts, an entire stimulant use disorder treatment literature has developed.

This chapter reviews the current state of knowledge on the treatment of people with stimulant use disorders, beginning with the approaches that have the most rigorous empirical support: contingency management (CM), cognitive–behavioral therapy (CBT)/relapse prevention (RP), community reinforcement, and motivational interviewing (MI). Other approaches with less support in the scientific literature are presented later in the chapter. These are physical exercise, the Matrix model, family or couples therapy, and mindfulness meditation.

Although at the time of this writing there are no Food and Drug Administration-approved medications with demonstrated clinical efficacy, an ongoing research program sponsored by the National Institute on Drug Abuse (NIDA) holds great promise for important treatment advances for stimulant use disorders.

ACCELERATING THE DEVELOPMENT OF STIMULANT USE DISORDER PHARMACOTHERAPIES

There currently are no Food and Drug Administration (FDA)-approved pharmacologic treatments for patients with stimulant use disorders. However, the National Institute on Drug Abuse's (NIDA) Division of Therapeutics and Medical Consequences (DTMC) helps advance such research through three programs targeted at SUD pharmacotherapies. DTMC supports the conduct of all clinical trial phases as well as assists with clinical trial design, trial implementation, and regulatory paperwork. Its pharmacotherapy programs are:

- The Pharmacotherapies Development Program: This program supports the development of novel medications and conducts safety and efficacy trials; stimulant use disorders involving cocaine and methamphetamine are high-priority areas given the lack of FDA-approved treatments for these conditions.
- The Addiction Treatment Discovery Program: Through preclinical testing, this program identifies, evaluates, and recommends potential medications as treatments for the medical management of SUDs.
- Regulatory Affairs Assistance for Medications Development Program: This program provides consultation on medication development regulatory requirements and strategies to federal agencies, NIDA grantees, and others. It also coordinates with FDA, filing the necessary regulatory documentation (like Investigational New Drug applications and Drug Master Files) as new medications enter or complete clinical studies.

For more on DTMC, including contact information for these programs, visit https://www.drugabuse.gov/about-nida/organization/divisions/division-therapeutics-medical-consequences-dtmc/research-programs.

How To Measure Effectiveness

This chapter reviews effective treatments for people with stimulant use disorders. To be judged effective, a treatment must have been tested and demonstrated to be effective in a randomized controlled trial (RCT). Many psychosocial and pharmacologic treatments have been investigated in such trials. Several psychosocial treatments for stimulant use disorders have proved effective, although no reliably effective pharmacologic treatments have been found to date. What has been learned so far about the use of psychosocial treatments for stimulant use is summarized below.

RCTs are the best available method for determining whether an intervention improves health. An RCT is a **prospective study** comparing the effect of some intervention against a control intervention in patients who are randomly assigned to the intervention group or the control group (Bhide et al., 2018).

In such trials, patients from a particular population sample (e.g., all admissions to clinic X during 2018 meeting a particular list of inclusion and exclusion criteria) who consent to participate are randomly assigned to the intervention under study or to a control condition. Random assignment helps ensure against possible bias in assigning particular kinds of patients to the different groups and helps distribute evenly between the groups any participant characteristics that might influence outcomes.

Prospective means that researchers study the groups from the start of the intervention, as opposed to retrospectively compiling the information after the intervention is completed.

Retrospective observations are not RCTs but are still commonly used approaches to research. For instance, they are often used in studies relying on administrative claims and electronic health records databases. These studies tend to be less accurate because relevant information is not always available or may be distorted through reliance on people's recall. Having a comparison or control group is essential because most problems have some level of variability (i.e., they wax and wane over time) and because many health problems resolve over time without any formal treatment. The most effective way to determine whether any observed changes are due to the treatment being investigated rather than to natural variability is by comparing against a similar group of patients who either received no treatment or received a standard treatment.

Some of the alternatives to RCTs common in the SUD treatment field can provide useful information but have serious limitations that must be recognized. For example, following a group of patients who received a particular treatment in the absence of a comparison group can be informative in terms of characterizing what has happened to them (e.g., percentage who returned to use, percentage who received additional treatment, amount of change from pretreatment to posttreatment). However, such observations do not permit making any scientifically valid inferences about the role of the treatment provided in bringing about any of the changes observed during follow-up. For that purpose, a comparison group is necessary. Any changes observed might have occurred in the absence of treatment. Without a comparison group, there simply is no way to rule out that possibility.

Similarly, when patients themselves select group membership, as opposed to being assigned by the researcher, one cannot make valid inferences about the role of treatment in the outcome. For example, comparing treatment completers to dropouts is common and may be informative in terms of characterizing how the groups fared, but it is not scientifically valid to infer that any differences observed between them were due to the different amounts of treatment received. Some other factor (e.g., differences in the amount of other demands on their time) could have been responsible both for the differential retention rates and for the subsequent differences observed at follow-up.

THE IMPORTANCE OF TEACHING HARM REDUCTION

Many people with stimulant use disorders will not be interested in formal treatment. But that doesn't mean that clinicians can't help them. Abstinence does not have to be the only goal for people with stimulant use disorders. Harm reduction techniques can teach people how to stop using stimulants or how to use them in a way that will reduce the risk of injury or death. Also, people can change their minds, and by "meeting patients where they are," rather than being argumentative and trying to force them into treatment, clinicians may find that patients who initially refuse treatment eventually become open to it.

Although harm reduction is not treatment, it can still help someone with a stimulant use disorder stay alive. Clinicians should never turn someone away from help simply because that individual isn't interested in entering formal treatment or pursuing abstinence.

Examples of harm reduction strategies that clinicians can use or share with patients are:

- **Educating them about or helping connect them to needle and syringe exchange programs.** People who use injectable drugs and who have reliable and trusted access to clean needles and syringes through a confidential exchange program may be less likely to share and reuse needles (Clarke et al., 2016). Exchange programs also help reduce the transmission of HIV (Des Jarlais, 2017).
- **Describing safer injection practices.** Teaching people who inject stimulants about proper injection techniques, handwashing and other basic hygiene, vein and wound care, and how and when to use antibacterial treatments can help reduce the risk of infection and other medical complications.
- **Distributing and educating on naloxone.** Naloxone is an FDA-approved opioid antagonist that reverses opioid overdose by helping people breathe normally (Office of the Surgeon General, 2018). Naloxone is not for stimulant overdose; it is an antidote to opioid overdose. But for people who use both stimulants and opioids, it can save their lives. Naloxone is not addictive and can be taken by injection or nasal spray.
- **Encouraging the use of fentanyl test strips.** Fentanyl, which can be deadly, may be added to drugs as a cheap filler. Fentanyl test strips allow individuals to determine before using drugs whether they have been mixed or cut with fentanyl. Use of the strips can reduce the risk of overdose.
- **Teaching patients HIV risk-reduction techniques,** like safer sex practices. People who inject stimulants are at risk for HIV and other blood-borne infections. Reducing risky sexual practices can help decrease their chances of contracting HIV and other sexually transmitted infections. As noted above, needle exchange programs also can help stop the spread of HIV.

Documented Psychosocial Treatment Approaches

The psychosocial interventions demonstrated to date to be efficacious in RCTs and other high-quality studies with people with stimulant use disorders share a common feature of incorporating well-established psychological principles of learning. Currently, these psychosocial approaches to treating people with stimulant use disorders have the most research support: CM, CBT/RP, community reinforcement approaches, and MI. Many studies look at combinations of these treatments. Thus, in making treatment decisions, clinicians should consider whether one of these approaches alone versus a combination of two might be best for a given patient.

It is impossible to quantify all aspects of psychosocial treatment or to account for all factors that affect patient outcomes. However, given that effective treatments and associated manuals are available, using them is prudent and helps ensure that patients receive the services that research has shown to be effective. An often-stated but unsubstantiated belief is that using a manual will limit or eliminate clinicians' flexibility and ability to exercise clinical judgment. A carefully prepared manual recognizes the importance of clinical judgment and flexibility in addressing the individual needs of patients and incorporates those features.

Contingency Management

CM is a well-known behavioral intervention designed to increase desired behaviors by providing immediate reinforcing consequences (in the form of incentives) when the target behavior occurs, and withholding those incentives when the target behavior does not occur. CM has been used with considerable effectiveness in treating individuals with a variety of SUDs and is very useful for treatment planning because it sets concrete short- and long-term goals and emphasizes positive behavioral changes (Benishek et al., 2014; Minozzi et al., 2016).

A meta-analysis found that CM had small and medium-sized effects on stimulant use at 3-month follow-up but not at 6 months (Sayegh et al., 2017). In a network meta-analysis of almost 7,000 participants across 12 different psychosocial interventions for cocaine and/or amphetamine use disorder, the combination of CM and community reinforcement approach was the most efficacious and most acceptable treatment in both the short and long term (De Crescenzo et al., 2018).

AshaRani and colleagues (2020) found that, across 44 studies of nonpharmacologic interventions for methamphetamine (MA) use, CM interventions showed the strongest evidence favoring the outcomes assessed, although tailored CBT alone or with CM was also effective in the target population.

Finally, H. D. Brown and DeFulio (2020) found that, across 27 studies looking at CM for MA use, nearly all (26 of the 27) reported reduced MA use.

Other positive outcomes across studies included longer retention in treatment, greater number of therapy sessions attended, higher utilization of medical and other services, reduced high-risk sexual behavior, increased positive affect, and decreased negative affect.

When considered collectively, CM interventions have by far the greatest amount of empirical support for their efficacy in promoting therapeutic behavioral change among people with stimulant use. In fact, interventions other than CM have demonstrated weak or nonspecific effects on stimulant use disorder-related problems (Farrell et al., 2019). People who use stimulants are sensitive to systematically applied CM interventions.

Like the other psychosocial interventions discussed in this chapter, CM may also be effectively used with other treatment approaches. In a review of 50 RCTs on 12 psychosocial interventions for cocaine or amphetamine use, CM plus community reinforcement was the only approach to result in increased rates of abstinence by the end of treatment, at short-term follow-up, and at long-term follow-up (De Crescenzo et al., 2018). This combination was also more effective than CBT alone, CM alone, CM plus CBT, and 12-Step programs plus noncontingent incentives. Treatment dropout rates were also lower with CM plus community reinforcement. These findings are consistent with those from other reviews that support CM (alone and in combination) as being highly effective for stimulant use disorders (Ronsley et al., 2020).

The size of the incentive may be important in generating positive outcomes, with higher-value cash incentives generally leading to more positive behavior changes (such as abstinence) than lower-value cash incentives (Stitzer et al., 2020). However, some research has found no difference in outcomes based on magnitude of incentive. For instance, Petry and colleagues (2015) studied differences in outcomes from standard-sized cash prizes (about $300 on average) versus larger-sized cash prizes (about $900 on average) in a CM program for people with cocaine use disorder and maintained on methadone. The two prize groups had no differences in drug-negative urine samples or duration of abstinence.

Pregnant women are an important subgroup for CM research. For instance, a study of women with cocaine use disorder who were pregnant or had young children found that CM is associated with longer cocaine abstinence and more cocaine-negative urine tests compared with use of noncontingency vouchers (Schottenfeld et al., 2011). For more information about stimulant use disorders in women who are pregnant, see Chapter 6.

Another population vulnerable to SUDs are individuals with serious mental illness (SMI). For SMI and stimulant use disorders specifically, McDonell et al. (2013) found that CM plus treatment as usual (mental health, SUD treatment, housing, and vocational services) was associated with fewer days of stimulant use and alcohol use and lower rates of injection drug use compared with treatment as usual. Researchers have also found CM added to usual treatment to be cost-effective (Murphy et al., 2016).

A WARNING ABOUT REIMBURSEMENT FOR CONTINGENCY MANAGEMENT

CM has the greatest weight of evidence supporting its use for the treatment of people with stimulant use disorders. However, Medicare and Medicaid currently limit the amount of money that can be used as an incentive in CM programs to a maximum of $75 (Glass et al., 2020). Some states also have laws limiting CM payments. For instance, in Washington State, state-funded health insurance plans limit CM incentives to no more than $100 (Glass et al., 2020). (Note, however, that CM incentives do not have to be monetary. Some programs use tokens, nonmonetary coins, or food, for example.)

Although some research in which CM has been successful has used much higher incentives—sometimes $400 to $500 per participant over the course of the study (Glass et al., 2020)—other studies have indicated CM effectiveness even when incentives were smaller (Hartzler & Garrett, 2016; López-Nuñez et al., 2016). Clinicians should be aware of current laws regarding CM payments and be prepared to offer other psychosocial interventions and services as needed.

WHAT CLINICIANS SHOULD KNOW ABOUT IMPLEMENTING CONTINGENCY MANAGEMENT

CM has a strong evidence base of support for treatment of people with SUDs generally, and stimulant use disorders specifically. But not all clinicians know or have been trained in CM and how to implement it. A walkthrough of this approach is beyond the scope of this Treatment Improvement Protocol, but the points below give important basic information about CM to help clinicians become more familiar with how to use it. The resources at the bottom of this text box offer more detailed guidance on this intervention.

- CM uses stimulus control plus positive incentives to achieve behavior change. This means as patients control their use of stimulants, they receive positive incentives (e.g., money) as incentives for their behavior. The common outcome targeted by the incentives is a stimulant-negative urine drug screen.
- Incentives come in the form of vouchers, points, or tokens that can then be exchanged for money, prizes, or privileges (like earning take-home doses of methadone for people in an opioid treatment program).
- Incentives can be administered regularly (called a fixed schedule), like every time the patient achieves a target behavior (e.g., remaining abstinent as documented by a negative urine screen), or they can be given intermittently (called a variable schedule; Kirby et al., 2016).
- Incentives can also be disbursed on an escalating schedule, with the incentive gradually increasing every time a target behavior is achieved. If a target behavior is ever not achieved, the incentive value "resets" back to the original value, and the escalating schedule begins again.
- A fishbowl procedure (also called variable magnitude of reinforcement) can be used to provide incentives on a variable schedule. In this approach, slips of paper are placed in a fishbowl—half indicating that an incentive has been won and half offering a reinforcing statement, such as "Good job!" This method prevents patients from predicting when they will and will not get an incentive.
- Some research suggests that people with SUDs respond better to CM that uses both immediate and delayed incentives, wherein patients earn an incentive right after meeting a target behavior but then also win the opportunity to potentially earn an even larger incentive in the future as the target behavior is continually met (Regier & Redish, 2015).
- Additionally, some research suggests that people with SUDs respond better to receiving concrete incentives—like an actual prize or money—rather than a voucher or token, which is only an incentive in the abstract and is not in itself valuable (Regier & Redish, 2015).
- To help maintain target behaviors, the longer a patient maintains a target behavior, such as remaining abstinent, the greater the incentive should be (Kirby et al., 2016). For example, a patient could earn more draws from the fishbowl for sequential stimulant-negative urine drug screens.
- Clinicians can work with patients to determine the schedule for giving incentives, such as right away or following a brief delay (e.g., giving vouchers that can be exchanged for prizes as soon as they have been earned, rather than at the end of the week) (Kirby et al., 2016).

Learn more about the major components of CM and how to implement it by reviewing:

- The Substance Abuse and Mental Health Services Administration's Addiction Technology Transfer Center (ATTC) Network online course Contingency Management for Healthcare Settings (https://attcnetwork.org/centers/northwest-attc/news/new-online-course-contingency-management-healthcare-settings).
- The Motivational Incentives Suite—a collection of tools and other resources to help organizations understand and implement CM (https://collaborativeforhealth.org/bettertxoutcomes/).
- The ATTC Network's guidance on the founding principles of CM (https://attcnetwork.org/centers/network-coordinating-office/contingency-management-part-2-founding-principles).

Cognitive–Behavioral Therapy/ Relapse Prevention

Despite the increase in research on CBT for stimulant use disorders over the past two decades, its effectiveness is still unclear (De Crescenzo et al., 2018; Ronsley et al., 2020). Nonetheless, many clinicians and researchers find CBT to be helpful. A Cochrane review from 2018 found mixed outcomes for CBT (including some positive findings, like an increase in percentage of abstinent days over a 90-day period and a reduction in symptoms). However, the review authors concluded that many CBT studies are small in size or poorly designed, making it difficult to have full confidence in their findings (Harada et al., 2018).

CBT in combination with CM may be especially helpful (De Crescenzo et al., 2018). One study reported that adding CM to CBT enhanced CBT's positive outcomes (e.g., cocaine-negative urine specimens) among people with cocaine use disorder (Carroll et al., 2016). Other researchers have found that CBT can have delayed positive effects on cocaine use disorder, with improvements appearing after study treatment has ended (Ronsley et al., 2020).

RP is a form of CBT that teaches patients strategies, skills, and lifestyle adaptations to help them change their thoughts and behaviors related to substance use. RP emphasizes (Hendershot et al., 2011):

- Ways to cope with substance craving.
- Substance refusal and assertiveness skills.
- General coping and problem-solving skills.
- Strategies to prevent a full-blown return to use should an episode of substance use occur.

Carroll and various colleagues have adapted RP for cocaine use and demonstrated the efficacy of the adapted approach (Carroll, Rounsaville, & Gawin, 1991; Carroll, Rounsaville, Gordon, et al., 1994; Carroll, Rounsaville, & Keller, 1991; Carroll, Rounsaville, Nich, et al., 1994). In an initial study, RP was compared with interpersonal psychotherapy (IP), which teaches strategies for improving social and interpersonal problems (Carroll, Rounsaville, & Gawin, 1991). Retention was better with RP than IP, and trends suggested cocaine abstinence may have been as well, but that difference was not significant.

Using as a sample more than 300 individuals who had completed outpatient SUD treatment for people with stimulant use disorders, Farabee, McCann, and colleagues (2013) assessed 14 RP strategies designed to help with abstinence maintenance at baseline and 3-month and 12-month follow-up. They found avoidance strategies to be the most effective predictor of drug-free urines at all time points assessed. The strategies significantly correlated with negative urine screens at all time points were:

- Reducing use of other drugs.
- Avoiding friends with active drug use.
- Avoiding places where drugs are available.

Participating in 12-Step meetings significantly predicted negative urines at baseline and 12-month follow-up. (For more information about 12-Step and other mutual-help programs, see Chapter 5.)

THE PREVENTION AND TREATMENT OF PRESCRIPTION STIMULANT MISUSE

Prescriptions for stimulant medication for attention deficit hyperactivity disorder (ADHD) have been increasing over the last two decades, likely in part because ADHD diagnoses in children and adolescents have been increasing (Colaneri et al., 2017; Visser et al., 2014). As rates of stimulant prescriptions have increased over the last 20 years, so too have rates of prescription stimulant misuse, including diversion (Holt et al., 2020). Adolescents and college-aged young adults are particularly at risk for behaviors like feigning ADHD symptoms to acquire a prescription, taking ADHD medication to improve academic performance, or giving away their prescribed medication to others (Colaneri et al., 2017; Weyandt et al., 2016). However, it is not just adolescents and college students who are at risk for prescription stimulant misuse. Adults older than 19 years received more than half (55%) of all U.S. stimulant prescriptions in the last decade (Arria & DuPont, 2018). Although most people prescribed stimulant medications do not misuse them and a much smaller percentage have a diagnosable stimulant use disorder, misuse can and does occur (Arria & DuPont, 2018) and can have serious health and legal consequences (L. Y. Chen et al., 2016; Colaneri et al., 2017).

Clinicians should ensure that patients meet the established criteria for ADHD in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) to avoid writing unnecessary prescriptions for stimulant medications. If the patient meets DSM-5 criteria for ADHD and a prescription stimulant is deemed an appropriate treatment, the prescribing provider should cross-reference the prescription information with available data in state-run prescription drug monitoring programs. This step should be completed each time a prescription is provided.

In the absence of published randomized controlled trials or randomized clinical trials on the treatment of prescription stimulant misuse, treatment should follow the same path as for cocaine use or MA use. That is, patients with prescription stimulant misuse should be offered CM, if available. Research into CM for youth with SUDs shows these interventions can help increase the chances of abstinence in the short term (Stanger & Budney, 2019). Such interventions may be particularly helpful given that most people with past-year prescription stimulant misuse are younger than 26 (SAMHSA, 2020g). However, there is a lack of long-term research showing whether substance-related outcomes persist over time and which factors might help improve short- and long-term efficacy (Stanger & Budney, 2019). If CM is not available, evidence-based treatments such as CBT/RP, community reinforcement, and MI can be offered to patients misusing prescription stimulants.

Research has examined the effectiveness of social influence resistance strategies to help prevent diversion of stimulant medication in young adults. Holt et al. (2020) surveyed more than 1,500 college undergraduates to learn whether students found such strategies useful. The strategies consisted of students directly refusing to divert their stimulant medication, coming up with excuses to avoid diverting ("I don't have any [medication] with me right now"), coming up with an alternative to diverting their medication (e.g., offering the person an energy drink instead), attributing their unwillingness to divert to an internal source ("I am not comfortable sharing my medication"), and blaming their unwillingness to divert on an external source ("My parents keep track of my prescription because they send it to me, so I can't share any").

In the study, 19 percent of the students said they had engaged in nonmedical use of prescription stimulants (i.e., prescription stimulant misuse) at some point during their time in college (Holt et al., 2020). Internal and external strategies were perceived as being the most helpful, and the use of excuses was rated the least helpful. Students who had previously engaged in diversion found the strategies overall to be less effective than did students at low risk for diversion. Clinicians working to prevent diversion in their patients not already diverting medication—as well as clinicians helping patients who are already diverting learn how to stop—might want to emphasize teaching refusal skills based on internal and external blaming strategies. Using these strategies may prove more effective than simply telling patients that they need to "learn to say 'no'" when approached by someone wanting them to divert their medication.

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Clinicians can also help reduce diversion by checking prescription drug monitoring databases and checking urine drug screens. Other stimulant diversion prevention techniques include (Colaneri et al., 2017):

- Developing medication contracts that include the risks and benefits of the stimulant medication, the risks of misusing the medication, an agreement that the patient will only take the medication as prescribed, conditions for determining adherence (e.g., pill counts), and consequences of the patient violating the contract.
- Providing materials that educate patients about the dangers of misusing prescription stimulants (e.g., the risk of potentially harming people with preexisting heart disease or cardiac structural abnormalities).
- Prescribing a smaller number of pills.
- Prescribing long-acting formulations rather than short-acting formulations.
- Conducting periodic pill counts.
- Learning about and prescribing nonstimulant medications instead of stimulants.

Clinicians should also build linkages with local SUD treatment providers (including ones specializing in working with adolescents and young adults), so they can refer patients in need of formal treatment and services. Finally, clinicians should be sure to conduct SUD assessments for patients who are prescribed stimulants (even if the patient is not misusing the prescription stimulant) and refer patients for SUD treatment as needed. People taking prescription stimulants—even lawfully and as prescribed—are vulnerable to tobacco, cannabis, cocaine, hallucinogen, and opioid use (Arria & DuPont, 2018; Compton et al., 2018). (See Chapter 2 for more information about stimulant use disorder assessment.)

Community Reinforcement Approach

Community reinforcement is an individualized treatment designed to promote key lifestyle changes that are conducive to successful recovery (see Meyers & Smith, 1995; Sisson & Azrin, 1989):

- Patients with partners/spouses who do not use stimulants are offered marital therapy to improve the quality of their relationships in a reciprocal and rewarding manner.
- Patients who are unemployed, employed in jobs that are high risk for substance use, or need vocational assistance for some other reason receive help in that domain.
- Patients are counseled and assisted in developing new social networks and recreational practices that promote and support recovery. Mutual-help group participation is not mandatory but is often used as an effective means of developing a new social network.
- Various types of skills training are provided depending on individualized patient needs, including substance refusal and associated skills, social skills, time management, and mood regulation.
- Patients with alcohol use disorder (AUD) and no medical contraindications are offered a program of disulfiram therapy coupled with strategies to support medication compliance.

Very few recent studies have examined community reinforcement alone, so it is unclear whether this approach delivers better substance use outcomes than other psychosocial approaches or usual care (Ronsley et al., 2020). One study of community reinforcement did find increased treatment retention and abstinence and decreased addiction severity after 24 weeks (De Giorgi et al., 2018).

More recently, research on community reinforcement has focused on the effectiveness of adding it to CM (Ronsley et al., 2020). When used together, these treatments appear to (De Crescenzo et al., 2018):

- Do a better job than usual care at retaining individuals in treatment.
- Do a better job than noncontingency-based approaches (either used alone or with 12-Step programs) at helping people achieve abstinence.
- Have better patient acceptance than treatment as usual.

In one review, community reinforcement combined with noncontingent vouchers was less effective at achieving abstinence from cocaine than was community reinforcement combined with CM (Schierenberg et al., 2012).

Motivational Interviewing

MI has been found to be an effective evidence-based, group- or individual-based treatment for people with SUDs, especially AUD (SAMHSA, 2019). MI and motivational counseling, as applied to SUDs, have been associated with decreased substance use, improved SUD treatment retention, lower rates of relapse, and better adherence to HIV risk-reduction behaviors (SAMHSA, 2019).

Recent studies of MI alone for stimulant use disorders show mixed results, with some finding no benefit and others finding improvements in reducing the number of days of cocaine use (De Giorgi et al., 2018). Intensive MI designed specifically for MA use disorder demonstrated no different outcomes in MA use or in anxiety compared with an education control group that also received MI, although it was nonintensive (Polcin et al., 2014). A Cochrane review of psychosocial interventions for stimulant misuse (Minozzi et al., 2016) included five studies comparing MI with no intervention. In these studies, receiving any psychosocial treatment (including MI) was associated with better treatment retention and greater abstinence than no treatment at all. However, the authors noted a fair amount of bias and study design problems across all of the studies in their review, including those pertaining to MI. Thus, results should be interpreted with caution.

Recent studies on combining MI with other treatment approaches were either inconclusive or had unreported results. One review noted that MI combined with CBT has yet to demonstrate reliable improvements over other treatments (De Giorgi et al., 2018). However, some individual studies have reported good results from adding MI to CBT.

In a sample of military veterans with SUDs, MI combined with CBT or combined with CBT and continuing care both showed significant decreases in substance use (including cocaine use) and reductions in aggression compared with treatment as usual (Chermack et al., 2019). MI added to CBT tailored to the unique needs of gay and bisexual men who are HIV positive was associated with lower MA use, better HIV medication adherence, and reduced risky sexual behavior (i.e., having sex without condoms) over the course of 12 months (Parsons et al., 2018).

THE ROLE OF TELEHEALTH IN TREATING STIMULANT USE DISORDERS

Technology use continues to grow as more people rely on smartphones and other electronic devices for access to information, social connection, and work-related activities. Telehealth is the use of technology to support and enhance healthcare delivery. Telehealth includes online education materials and treatments, mobile applications, and synchronous audiovisual services.

Research has shown that telehealth can be a useful and cost-effective tool for people with SUDs (Dallery et al., 2019; Murphy et al., 2016; Tait et al., 2015). Although more research is needed on the use of telehealth for people with stimulant use disorders specifically, research on telehealth for SUDs in general or other substances specifically can still provide useful insight into how these innovative tools and approaches may be effective and beneficial for patients.

Examples of ways that telehealth can help clinicians and their patients include:

- Supporting formal treatment.
  - Self-guided web-based interventions using techniques from CBT and motivational enhancement have shown promise in increasing help-seeking and reducing role impairment for people using amphetamine-type stimulants (Tait et al., 2015).

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  - In 2017, a mobile application, reSET, became the first prescription-based digital therapeutic cleared by FDA. The program is based on the community reinforcement approach model and allows physicians to prescribe an 84-day access period by providing a code required for download. A multisite clinical trial of more than 500 adults with an SUD (including stimulant use disorder) who were engaged in outpatient treatment and who used the reSET application had lower dropout rates and higher abstinence rates (FDA, 2017).
  - Posttreatment telephone contact, whether structured or directive, is associated with perceived decreases in life events that contribute to substance use among people who use stimulants (Farabee, Cousins, et al., 2013). High dropout rates during treatment for stimulant use disorders suggest there may be utility to using telephone contact during treatment to encourage retention as well (Lappan et al., 2020).
- Reaching rural and underserved communities.
  - Telehealth can address barriers to receiving substance use treatment in rural communities, such as privacy concerns, lack of provider availability, and lack of evidence-based, culturally appropriate services (Lin et al., 2020; SAMHSA, 2016). Although promising, clinicians should be aware that patient-level barriers, such as reliable access to the Internet and devices that support audiovisual conferencing or mobile applications, may affect telehealth implementation (Hser & Mooney, 2021; Kleykamp et al., 2020).
  - Studies of people with alcohol, tobacco, and opioid use disorders show that telehealth can effectively promote treatment engagement and retention, perceived support from providers, and substance use reduction through increased access (Kruse et al., 2020; M. C. Mahoney et al., 2018; Weintraub et al., 2018). Research is needed to determine whether these benefits translate to people with stimulant use disorders.

Treatment Approaches With Supportive Research

Physical Exercise

Physical activity is an area of robust and fast-growing research for therapies for stimulant use disorders. Aerobic exercise has been an increasing focus of SUD treatment studies broadly (as an add-on therapy, not as the lone treatment), including studies on stimulant use disorders (Sanchez et al., 2017). A review of physical activity interventions for people with MA use (Morais et al., 2018) found that, compared with nonexercise intervention controls, improvements were observed for:

- Aerobic performance.
- Muscle strength and endurance.
- Body composition.
- Heart rate variability.
- Depression.
- Anxiety.
- MA use.
- MA cravings.
- Inhibitory control.

Other researchers have similarly found that structured aerobic exercise and resistance training help reduce depression and anxiety in MA use disorder (Morris et al., 2018; Rawson, Chudzynski, Gonzales, et al., 2015), which may be useful in helping patients remain in treatment and sustain abstinence.

A study by Rawson, Chudzynski, Mooney, et al. (2015) found that participants with a lower severity of MA use assigned to an exercise intervention reported fewer days of drug use and had fewer positive urine screens, compared with participants with a lower severity of MA use who received a health education intervention. In the STimulant Reduction Intervention using Dosed Exercise (STRIDE) study (Trivedi et al., 2017), a 12-week dosed exercise intervention in residential SUD treatment settings was associated with a

significantly higher percentage of days abstinent compared with a health education intervention. (Both interventions were add-ons to treatment as usual.)

Benefits of physical exercise to people who use stimulants may include enhanced antioxidant mechanisms, reduced oxidative stress, and decreased reward-seeking behaviors (Morais et al., 2018). Evidence from human trials of exercise for stimulant use indicates an improvement in neurotransmitter systems that become deranged with cocaine or MA exposure (especially dopaminergic systems; Morais et al., 2018). Exercise by people using MA may help increase their striatal D2/D3 receptor availability (Morais et al., 2018). Preliminary data suggest that exercise for MA use disorder may also lead to better MA-related outcomes by increasing dopamine receptor binding in the brain (Robertson, Ishibashi, et al., 2016).

The Matrix Model

The Matrix model (originally referred to as the "neurobehavioral model") is a manualized outpatient treatment approach that was developed during the mid-1980s for the treatment of individuals with cocaine and MA use disorders (NIDA, 2018a). The model integrates treatment elements from a number of specific strategies, including RP, MI, psychoeducation, family therapy, and 12-Step program involvement. The approach's basic elements consist of a collection of group sessions (early recovery skills, RP, family education, and social support) and individual sessions, along with encouragement to participate in 12-Step activities (NIDA, 2018a; Rawson, 2010).

In seven research projects evaluating the treatment model, application of the model was shown to be associated with significant reductions in cocaine, MA, and other substance use (Rawson et al., 1993; Shoptaw et al., 1994). Treatment participation in the Matrix model has also been demonstrated to be associated with a significant improvement in psychological symptoms and significant reduction in risky sexual behaviors associated with HIV transmission (NIDA, 2018a). Adaptations of the Matrix model are available to address the unique treatment needs of women with stimulant use disorders in such areas as trauma, pregnancy and parenting, body image, and sexuality (SAMHSA, 2012).

Family and Couples Therapy

People with SUDs often have extensive marital, relationship, and family problems. Stable marital and family adjustment is associated with better treatment outcomes. Including family members in treatment is based on the view that they can provide important support for the patient's efforts to change and offer additional information about the patient's substance use and other behavior. Interventions directed at improving marital and family adjustment have therefore been judged to have the potential to improve treatment outcomes. Studies with people with AUD have supported this hypothesis, at least in part (Klostermann et al., 2011). Few studies have focused on stimulant use, however.

Research on family and couples therapy for stimulant use disorders is scant, but outcomes appear promising. In a study of women with SUDs who have children, family systems therapy was associated with a reduction in both likelihood of cocaine use and frequency of use over time, and, compared with control participants, a faster decrease in frequency of cocaine use over time (Slesnick & Zhang, 2016).

For more information about providing family and couples therapy for people with SUDs, see SAMHSA's Treatment Improvement Protocol (TIP) 39, *Substance Use Disorder Treatment and Family Therapy* (https://store.samhsa.gov/product/treatment-improvement-protocol-tip-39-substance-use-disorder-treatment-and-family-therapy/PEP20-02-02-012).

Mindfulness Meditation

Mindfulness-based interventions have gained popularity as potential tools to help prevent return to use by people with SUDs (Chiesa & Serretti, 2014). Mindfulness-based psychotherapy for people with cocaine use disorder (Dakwar & Levin, 2013) resulted in a 73-percent treatment completion rate and a 55-percent abstinence rate.

Among people with stimulant use disorders who received 12 weeks of CM, concurrent use of mindfulness-based RP was associated with greater reductions in depressed mood, greater reductions in Addiction Severity Index score, and lower odds of stimulant use compared with a health education control group (Glasner-Edwards et al., 2017). Close to half the sample had major depressive disorder (43%), and approximately one-quarter had generalized anxiety disorder (24%). Compared with CM plus health education, CM plus mindfulness RP was associated with lower scores of negative affect, greater reductions in depression severity and psychiatric symptom severity, and—among people with depressive and anxiety disorders—decreased stimulant use (Glasner-Edwards et al., 2017).

A residential mindfulness-based intervention for women with SUDs (most of whom had amphetamine/MA use) similarly showed greater chances of treatment completion compared with the control condition. Also, program attendance significantly correlated with improvements in mindfulness, distress tolerance, and mood (D. S. Black & Amaro, 2019).

Mindfulness-based RP combined with a single dose of ketamine was associated with longer cocaine abstinence than mindfulness plus midazolam in a 2019 study by Dakwar and colleagues. The mindfulness-ketamine participants were also 53 percent less likely to return to use and had significantly lower scores on craving.

Case Management and Coordinated Care

Case management and coordinated care are SUD treatment approaches with strong support, especially in terms of their ability to link people with SUD treatments and services and to retain patients in treatment (Vanderplasschen et al., 2019). These approaches are person centered and help ensure that care delivery is organized and includes all needed interventions and services, to the extent possible.

A small but promising line of research has looked at case management or coordinated care specifically among people with stimulant use disorders:

- In a pilot study, a strengths-based case management intervention for people with HIV who used injection drugs or smoked crack cocaine was associated with a decrease in detectable viral load (Kral et al., 2018).
- A study of women who used crack cocaine found case management was associated with improvements in drug and alcohol use (i.e., lower frequency of use), mental and emotional health (e.g., less depression or anxiety), and employment (Corsi et al., 2010).
- Men and women who were receiving public assistance and had a long history of substance use (including cocaine use) benefited from a coordinated care management approach designed to help link patients to SUD treatment, provide them with SUD-related services, and help them find employment (Morgenstern et al., 2009). Compared with the usual care group, women (but not men) in the program saw an increase in employment over time.

Vocational services are an important part of case management and coordinated care approaches; they can help people with SUDs, including stimulant use disorders, reintegrate into the workforce, learn valuable skills, and earn wages. Employment is an important aspect of long-term recovery and is associated with successful SUD treatment completion and 6-month abstinence (Sahker et al., 2019). Case management and coordinated care that incorporate vocational training or employment assistance may improve patients' chances of stopping stimulant use and staying in recovery following treatment.

For instance, the Compensated Work Therapy (CWT) program is a Department of Veterans Affairs clinical vocational rehabilitation service that supports veterans in finding and retaining employment. CWT interventions have been combined with CM to help veterans with SUDs not only improve employment outcomes but reduce substance use (Cosottile & DeFulio, 2020). Employment-based CM programs have been particularly successful for patients with cocaine use and opioid use disorders (OUDs; Cosottile & DeFulio, 2020).

For more information about vocational services, see SAMHSA's TIP 38, *Integrating Substance Abuse Treatment and Vocational Services* (https://store.samhsa.gov/product/TIP-38-Integrating-Substance-Abuse-Treatment-Vocational-Services/SMA12-4216), and SAMHSA's *Advisory,* Integrating Vocational Services Into Substance Use Disorder Treatment (https://store.samhsa.gov/product/integrating-vocational-services-substance-use-disorder-treatment/pep20-02-01-019).

Although case management and care coordination is still a growing area of research, these positive findings, along with the research showing support for case management and coordinated care for SUDs in general, suggest that using these approaches, when possible, can help patients benefit further from treatment, even in non-SUD outcomes (like employment and HIV status).

Other Interventions With Supportive Research

Evidence on transcranial magnetic stimulation (TMS) suggests this could be a safe and effective treatment for people with SUDs, although this research area needs further study. TMS involves nonsurgical stimulation of the brain through magnetic electrodes placed on the scalp. It is painless and noninvasive. It is thought to work on SUDs in part by increasing dopamine delivery to certain parts of the brain (e.g., the limbic system) and by reducing impulsivity/increasing self-control mechanisms in the prefrontal cortex network.

Repetitive TMS (rTMS) has been shown to be effective in reducing cravings in AUD (De Sousa, 2013). A review of six studies looking at rTMS for cocaine use disorder found a reduction in cravings and an increase in cocaine-free urine screens but noted that the evidence is still preliminary and needs to be replicated in larger studies (Bolloni et al., 2018). Data also suggest that only high-frequency rTMS (rather than low frequency) is effective in reducing cocaine, amphetamine, or MA craving (Ma et al., 2019).

Other Models of Psychosocial Treatment

Network Therapy

Network therapy is based on the theory that people can recover from SUDs if they have a stable social network to support them in psychotherapeutic treatment. In this model, a patient receiving individual psychotherapy develops a network of stable, nonsubstance-using support people, such as family, a partner, and close friends. These support people learn strategies from the clinician to support the therapeutic process for the individual being treated. They may interact regularly with the clinician, participate in treatment sessions with the patient (SAMHSA, 2020k), and be involved in setting up treatment plans for the patient.

Inpatient (or Hospital-Based) Treatment

"Inpatient treatment" is a broad term encompassing the highest levels of medical care for patients who may be experiencing acute medical or psychiatric needs secondary to recent use of substances or acute withdrawal. Specifically, acute treatment services may involve 24-hour medical management or medical monitoring, particularly in instances where stimulant use has led to life-threatening medical problems, such as rhabdomyolysis, significant electrolyte imbalances, or severe cases of sleep deprivation.

Historically, inpatient treatment began in the 1800s for patients experiencing severe AUD in an attempt to reduce the community-level concerns related to uncontrolled alcohol consumption. Programs like the Washingtonian Home in the city of Boston were specifically designed to help patients detoxify from alcohol and return to society (White, 2004). Over time, these programs shifted to hospital-based or medically monitored care to reduce the morbidity and mortality associated with alcohol withdrawal.

Inpatient treatment for AUD traditionally consisted of a 28-day stay in a hospital or residential treatment facility, during which daily activities such as group psychotherapy and relaxation practice were provided in a structured format. Generally supportive and sometimes confrontational

in nature, inpatient treatment was aimed at detoxifying patients, combating their denial, and beginning the process of engaging with mutual-help programs.

The 28-day standard treatment regimen also became common for patients experiencing other SUDs. It was especially widespread in the early 1980s, when the numbers of patients seeking treatment for cocaine use disorder began to rise dramatically. Most of these inpatient programs for treating cocaine use were adapted with few or no modifications from the alcohol regimens and with little input from empirically based research. Such inpatient programs were called into question by insurance providers, and subsequently, their use steadily declined (Malcolm et al., 2013).

Today, acute treatment programs, colloquially referred to as "detoxes," may admit patients for between 3 and 10 days for observation during initial cessation of substance use and restoration of physiologic homeostasis (the body's natural ability to maintain critical functions, like normal core temperature and normal blood glucose levels) after significant periods of severe substance use. Acute treatment services vary greatly in the amount of recovery support available to patients and the number of medical staff onsite for the care and monitoring of patients.

Patients with significant medical or psychiatric comorbidity may be voluntarily admitted to medically or psychiatrically managed SUD care, often referred to as "Level 4 facilities" after the level that is assigned in the American Society of Addiction Medicine's (ASAM) levels of care (ASAM, 2015b; K. Hartwell & Brady, 2018). These hospital-based residential programs are capable of accommodating the highest acuity patients and are used for acute stabilization of medically or psychiatrically complex patients.

Clinical stabilization programs, or transitional support services, are inpatient programs for patients with fewer medical or psychiatric comorbidities. These programs typically offer more recovery services for patients, including mutual-help groups, therapeutic communities (TCs), education or therapy groups, individual counseling, a therapeutic milieu, and other integrated psychosocial services (ASAM, 2015b). These programs may last anywhere from 2 to 4 weeks (and often longer) and because of their extended nature may be the most beneficial in monitoring patients in early recovery from stimulants.

Special considerations should be made in treatment plans for patients experiencing stimulant withdrawal in inpatient settings (Braunwarth et al., 2016). Given the profound fatigue and excessive sleeping that can occur, considerations for exemptions from therapeutic sessions and educational services should be considered.

Nutritional support for patients recovering from SUDs is vital (Szydlowski & Amato, 2017). Increased access to high-calorie foods and foods with increased nutritional value may help in augmenting patients' weight and correcting electrolyte imbalances (Braunwarth et al., 2016). Programs should consider consultation with appropriate nutrition or dietary specialists when necessary.

Additionally, given the possibility of increased depressive symptoms throughout acute withdrawal from stimulants, patients should be assessed for changes to risk for self-injury or self-harm regularly while in the inpatient unit, and safety plans should be in place in case patients develop thoughts of self-harm or self-injury. Suicide has been shown to be a significant cause of mortality for individuals who misuse stimulants (Butler et al., 2017; Farrell et al., 2019; Marshall & Werb, 2010).

Legislation regulating involuntary commitment to inpatient treatment settings (also known as mandated treatment) for SUDs varies throughout the United States. Many states have enacted legislation that allows clinicians or, in some instances, family members to file petitions for involuntary assessment of SUDs when patients are unable to adequately care for themselves or they pose serious risks to themselves or others. A judge may dismiss the petition or issue a court order for SUD treatment. Patients can choose to refuse treatment and ignore court orders, which may result in undesirable legal consequences. For patients admitted for involuntary treatment, special consideration should be given to identifying the reason for the involuntary commitment and the best strategy to mitigate that condition.

Involuntary treatment may be confrontational initially, and staff generally use MI techniques to elicit change talk and capitalize on patients' mandated treatment status. In the setting of involuntary treatment, it is vital to establish referral partners for when the patients have completed their requisite amount of time in SUD treatment.

Inpatient treatment varies in both insurance coverage and credentialing of staff. It is important to understand the nuances of different inpatient treatment programs, especially the duration of treatment, the medical/psychiatric credentials of the staff, and the program's ability to collaborate with outpatient treatment partners (Office of the Surgeon General, 2016). Given that stimulant use disorders are chronic, relapsing conditions, treatment should not end once patients leave an inpatient setting. These patients should always be "stepped down" into outpatient care.

In the past two to three decades, more patients have received primary SUD care in outpatient settings rather than inpatient treatment facilities. As this shift continues, inpatient treatment will remain reserved for patients experiencing the most severe forms of an SUD, with the highest risk of morbidity or mortality related to their medical or psychiatric presentation while using or stopping their use.

Residential Treatment

Residential treatment may be indicated for people with SUDs who need more structured support for a specific period of time in early recovery. The structure of residential treatment allows positive changes and stabilization in patients' attitudes and lifestyles. The duration of residential treatment varies. Some treatment may be as short as 30 days, whereas other treatment may last up to 1 year.

TCs, a common type of long-term residential treatment, typically use group activities directed toward effecting significant changes in the residents' lifestyles, attitudes, and values. They emphasize prosocial behavior and strengths-based strategies for improved decision making (NIDA, 2015). Many referrals to TCs take place through the court system. In fact, TCs were originally designed for patients with heroin use disorder, low socioeconomic backgrounds, and long-term histories of criminal involvement.

Halfway Houses

Halfway houses (also known as sober living environments or facilities) provide transitional support for people who have completed residential treatment and are still attending formal treatment, like outpatient care (Polcin et al., 2010), but would benefit more from increased structure or support than from solitary community living. Halfway-house program requirements usually include specified community involvement (e.g., employment or enrollment in school), and abstinence from mood-altering substances. Evening group activities are structured around residents' work schedules. Programs generally require out-of-pocket expenses and have limited insurance coverage or reimbursement.

PATIENT PLACEMENT: AVOIDING THE COOKIE-CUTTER APPROACH

Long-term residential treatment can be enormously helpful for many patients. But not all people with stimulant use disorders need this level of care right away or even ever. A one-size-fits-all approach to choosing a treatment setting—such as sending everyone to residential treatment for 60 days—should not be used. Rather, clinicians should consider each patient's needs, preferences, and life circumstances individually. Using patient placement criteria, such as those from ASAM, or clinical assessment can help clinicians and patients make informed, tailored decisions.

Clinical Issues To Consider

Clinicians should be prepared to take into account a number of clinical challenges when doing treatment planning with patients. Exhibit 4.1 summarizes the most common clinical issues encountered and strategies to manage them (Rawson et al., 2021).

EXHIBIT 4.1. Stimulant Use: Managing Common Clinical Issues

Issue	Clinical Consideration	Management Strategy
Secondary substance use	An individual may use multiple substances to enhance the physical or psychological effects of each drug, to counteract the effects of one or more drugs, to prolong a drug's effects, or to experience a new effect. One who uses stimulants often also uses: • Alcohol. • Opioids (e.g., heroin, fentanyl, prescription opioids). • Benzodiazepines. • Cannabis.	• Assess individuals using opioids for opioid use disorder (OUD) and treat with medications for OUD.* • Assess individuals using alcohol for alcohol use disorder (AUD) and treatment with AUD medications, including naltrexone.* • Assess individuals using benzodiazepines for dependence, and, if needed, provide medical withdrawal assistance. • Offer motivational interviewing (MI) and other evidence-based behavioral strategies.
Overdose risk	Much of the cocaine and methamphetamine (MA) that is now available contains fentanyl and heroin. Individuals using stimulants that include fentanyl have an increased risk for overdose. Current supply of MA is very potent and can create MA overdose, including seizure, stroke, very high temperature, and heart attack.	• Assess patient awareness of dangers from fentanyl and educate about risks. • Encourage patients to use fentanyl test strips to determine whether stimulants have been mixed or cut with fentanyl. • Train staff, patients, and family members on naloxone use and make naloxone available to patients, their families, and the community. • Monitor patients closely for opioid overdose symptoms from fentanyl (or heroin) mixed with MA or cocaine. • Train staff in use of MA overdose strategies, including how to address stroke and hyperthermia.
Intoxication	Stimulants cause: • Euphoria. • Hyperexcitability. • Hypersexuality. • Increased locomotor activity. • Agitation. • Psychotic symptoms, including paranoia and hallucinations. • Dilated pupils (National Institute on Drug Abuse, 2021b; Yasaei & Saadabadi, 2021).	• Try to calm the patient down (i.e., create a soothing environment). • Consider pharmacologic treatment (e.g., benzodiazepines, antipsychotics) for patients who exhibit severe symptoms of intoxication. • Note: No medications are currently available to reverse MA overdose. • Note: Cocaine intoxication typically lasts 2–4 hours, whereas MA intoxication can last 12 hours or more.
Co-occurring mental and stimulant use disorders	One of the challenges clinicians face is making a distinction between independent psychiatric disorders, psychiatric disorders as a result of the stimulant use, and psychiatric symptoms that arise from intoxication and withdrawal.	• Consider integrated treatment options, regardless of the underlying cause of the co-occurring diagnosis. • Lack of adequate treatment for either disorder may interfere with overall recovery; coordinate services between SUD clinicians and mental health service providers if SUD treatment staff do not treat mental disorders.

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EXHIBIT 4.1. Stimulant Use: Managing Common Clinical Issues

Issue	Clinical Consideration	Management Strategy
Psychosis	Stimulant use can cause psychotic symptoms (e.g., auditory and visual hallucinations, paranoia). Mania also may occur. Stimulant-induced psychosis is generally transient; but persistent MA psychosis can resemble psychosis in schizophrenia.	• Consider an antipsychotic medication to address acute symptoms. • Consider continuation of antipsychotic medications for long-term management of persistent psychosis.
Violence	MA use increases the risk of violent behavior (McKetin et al., 2014).	• Understand the relationship between stimulant use and violence, and be aware of the consequences of violence for individuals using stimulants, their families, facility staff, and other patients.
Cognitive deficits	Stimulant misuse leads to attention and memory problems that can interfere with an individual's ability to engage in treatment approaches that involve learning. Stimulant misuse can also lead to executive dysfunction, including difficulties with problem-solving, planning and organization, and reasoning (C. Ellis et al., 2016; Wilens et al., 2017).	• Inform patients about cognitive deficits and use strategies that provide repetition of information and do not depend on optimal memory. • Reserve treatments that require more complex cognitive functioning until a patient's cognition is restored after a period of abstinence from stimulants. • Assess for cognitive deficits and teach staff to be aware of any deficits.
Stimulant withdrawal	Stimulant withdrawal symptoms comprise severe fatigue, cognitive impairment, feelings of depression and anxiety, anergia (lack of energy), confusion, and paranoia. Most patients experiencing acute withdrawal/early-phase abstinence will have most of their symptoms resolve in 2–10 days.	• Suggest that patients rest, exercise, and eat a healthy diet, which is the best management approach for most people in withdrawal. Patients with heightened agitation and sleep disturbance may respond to pharmacotherapy, but acute depression and anhedonia associated with early abstinence generally resolve without intervention. Be aware of possible dehydration and hyperthermia.
	Individuals may experience cravings associated with specific cues, such as objects (e.g., cash), people (e.g., relatives who use drugs), other substances (e.g., cannabis), places (e.g., areas where stimulants are sold or used), time periods (e.g., weekends, evenings), and emotional states (e.g., depression, boredom; A. R. Childress et al., 1999).	• Educate patients in treatment about the powerful impact of cue-induced cravings, and help them identify strategies to avoid situations in which there are "triggers."
	Once acute withdrawal subsides and the person starts to feel better, they may experience hypersexuality and impaired sexual functioning, leading to mental distress (Rawson et al., 2002).	• Educate patients about the possibility of changes in sexual function during later phases of recovery.

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EXHIBIT 4.1. Stimulant Use: Managing Common Clinical Issues

Issue	Clinical Consideration	Management Strategy
Severity of disorder and level of care	Patients may receive treatment services at various levels within the continuum of care. Levels range from prevention and early intervention to inpatient and residential services. Assessing the required level of care for each patient based on the severity of the patient's disorder is critical. Patient placement criteria, such as the American Society for Addiction Medicine's, can be used to match severity to level of care needed.	• Ensuring access to care is a primary consideration given the potential for overdose. Evaluate the patient's needs and try to match services at the appropriate level, and then step up to more intense treatment or down to less intense treatment as needed. • Engage peer recovery support specialists or case managers who can be helpful in continuing care, removing obstacles to recovery, and linking patients to specialty treatment. • Based on the risk of overdose, ensure availability of treatment and retention in treatment as primary goals for all programs working with people actively using stimulants. • Consider the presence of psychosocial stressors that may affect level of care needed, such as involvement in the criminal justice system or a lack of housing.

* Because naltrexone is an opioid antagonist, patients who take opioids and are prescribed naltrexone for AUD or OUD must abstain from opioids for 7 to 14 days (depending on type of opioid) before starting naltrexone treatment. The purpose of this waiting period is to avoid precipitating opioid withdrawal (Substance Abuse and Mental Health Services Administration, 2020h, 2020o).

Engaging and treating people who are actively using stimulants, in withdrawal, or in early recovery is challenging. Understanding the experience of the patients in conjunction with clinical concerns is essential for planning and implementing therapy practices to meet patient needs and preferences. Again, when working with these patients, keep in mind that the psychosocial approach with the most research support is CM, with CBT/RP, community reinforcement, and MI also being well-supported interventions. Moreover, mutual-help programs, such as Crystal Meth Anonymous and Narcotics Anonymous, can help individuals with stimulant use disorders manage relapses and enhance recovery.

Summary

Several empirically tested nonpharmacologic treatments for stimulant use disorders are available, with CM having the strongest weight of evidence. CBT/RP, community reinforcement, and MI also have good though less robust data to support their use to treat stimulant use disorders. Less rigorously studied yet still appropriate approaches, such as mindfulness meditation and prescribed physical activity, can also be used to supplement SUD care and potentially help patients improve abstinence and other health outcomes. Clinicians have a wide range of options to help patients with stimulant use disorders reduce or stop their substance use, improve their health, regain functioning (e.g., obtain or return to work), and achieve long-term recovery.

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Chapter 5—Practical Application of Treatment Strategies

KEY MESSAGES

- Clinicians may begin engaging patients who use stimulants before these patients have any motivation to change their pattern of use. Clinicians should use motivational interviewing techniques to assess patients' stage of change, ambivalence to change, and motivators for change as part of the initial assessment for treatment.
- Strategies that clinicians can use to maximize patient engagement include discussing treatment expectations, offering multiple treatment options, using a person-centered and respectful approach, conveying empathy and concern, identifying barriers to treatment engagement or participation that would affect success, and working collaboratively with patients to develop a clear treatment plan and framework that can be changed as necessary.
- Clinicians should initiate treatment of new patients by working with them to set treatment goals, discussing reducing or discontinuing all substance use, fully assessing their clinical needs, and helping them manage stimulant withdrawal. Clinicians should then focus on helping these patients progress through the continuum of substance use disorder care.
- Clinicians can use several strategies to help patients maintain progress in recovery, such as teaching functional analysis of stimulant use; reinforcing positive behaviors with incentives (i.e., contingency management); offering relapse prevention tools; teaching ways to avoid high-risk situations; providing social skills training; linking patients to vocational counseling; and promoting connections to family, friends, and the community.

The Food and Drug Administration (FDA) has not—as of the publication date of this document—approved any medications for the treatment of individuals with stimulant use disorders. Therefore, Chapter 5 focuses on applying behavioral and psychosocial approaches to improving treatment outcomes for individuals with stimulant use disorders. Consensus panel recommendations for the Substance Abuse and Mental Health Services Administration's (SAMHSA) original Treatment Improvement Protocol (TIP), which were augmented by field review feedback, have been reviewed and updated. Whenever possible, the chapter presents treatment strategies that are supported by empirical evidence. However, because many stimulant use treatment issues have not been systematically researched, current clinical practice is also discussed.

Individuals seeking help for stimulant use disorders can receive their treatment in a variety of settings. The strategies described in this chapter emphasize techniques used in outpatient substance use disorder (SUD) care. However, many, if not most, of these strategies and techniques can be integrated into other treatment settings across the continuum of care.

This chapter describes the key aspects of stimulant use disorders in the order in which they typically unfold to provide clinicians with a roadmap for systematically addressing clinical issues as they emerge.

This chapter assumes that structured outpatient treatment will be viewed as one interdependent component of a larger SUD treatment process and system. Many people with stimulant use disorders can experience the following:

- Medical problems or emergencies
- Psychiatric problems or crises
- Social, legal, or employment problems

Therefore, this chapter, while focusing on outpatient treatment of stimulant use disorders, acknowledges the critical importance of various settings and processes along the continuum of care.

LEVELS OF CARE AND STIMULANT USE DISORDER TREATMENT

Chapter 3 describes the medical and mental health factors to consider to ensure the safe admission of patients into care settings. The American Society of Addiction Medicine (ASAM) Criteria establishes comprehensive guidelines to ensure that patients with SUDs enter treatment at the appropriate level of care, remain in care for the necessary duration, and are transferred to another level of care when they are ready. ASAM Criteria assesses six dimensions for individuals:

1. Acute intoxication and/or withdrawal potential
2. Biomedical conditions and complications
3. Emotional, behavioral, or cognitive conditions and complications
4. Readiness to change
5. Recurrent or continued use or continued risk potential
6. Recovery and living environment

Clinicians can use ASAM Criteria to prioritize patients' treatment needs and to identify the areas where patients are most likely to have a successful response to treatment (SAMHSA, 2021c). Clinicians can also reference state-specific placement criteria that satisfy requirements outlined in state statutes for SUD admissions (if available).

Source: Mee-Lee D, Shulman GD, Fishman MJ, Gastfriend DR, Miller MM, eds. The ASAM Criteria: Treatment Criteria for Addictive, Substance-Related, and Co-Occurring Conditions. 3rd ed. Carson City, NV: The Change Companies®; 2013.

People With Stimulant Use Disorders Seeking Treatment

To effectively meet the needs of people using stimulants, healthcare staff throughout the continuum of care must understand patients' unique perspectives. For example, individuals with opioid use disorder (OUD) may initiate contact with the treatment system when they are experiencing opioid withdrawal. Taking FDA-approved medications for OUD that alleviate opioid withdrawal symptoms may be patients' first foray into formal SUD treatment. SUD care settings that can provide both OUD medication and behavioral support are better equipped to engage and retain patients in care.

People with stimulant use disorders may approach the treatment system with a different set of priorities than do people with OUD. Although the priorities of people with stimulant use disorders and the assistance they seek vary, they often share several common pretreatment perspectives.

"Bad Things Are Happening"

Admission interviews with people who use stimulants may reveal that they are seeking treatment mainly because this use has resulted in negative consequences, such as legal, job-related, medical, family/relationship, financial, and psychiatric problems (Herbeck et al., 2014; Pedrelli et al., 2015; Vayalapalli et al., 2011). Initially, these individuals may focus on receiving assistance to address these negative consequences rather than on reducing their stimulant use. This attitude is consistent with Maslow's Hierarchy of Needs (Maslow, 1943), which states that individuals must meet their most basic needs (i.e., physiologic and safety needs) before they can pursue higher level needs (i.e., needs related to love and belonging, self-esteem, and self-actualization). By understanding patients' motivations for seeking treatment, clinicians can better meet patients "where they're at."

"Life Is Out of Control"

Patients engaging in treatment for stimulant use disorder may say, "My life is out of control." They point to their excessive behaviors associated with obtaining, using, and recovering from using cocaine or methamphetamine (MA). These behaviors can lead to:

- Financial instability and/or illegal activities (Cheng et al., 2010; Gizzi & Gerkin, 2010; Maiorana et al., 2021).
- Lack of routine self-care (Nassar & Ouanounou, 2020; Yasaei & Saadabadi, 2020); examples include insufficient eating, sleeping, bathing, and oral hygiene.
- Diverse or personally atypical sexual activities (Maiorana et al., 2021).
- Strained familial and spousal relationships (Abdul-Khabir et al., 2014; Cheng et al., 2010) resulting from, for example, spending subsistence money on drugs, failing to care for children, or engaging in marital infidelity.
- Homelessness (McKenna, 2013; Walls & Bell, 2011); examples include staying on a friend's couch, staying in a car, and renting by the week at a motel.

Emotional turmoil accompanies these developments, including (Ciccarone, 2011; J. C. Maxwell, 2014):

- Cycles of euphoria and depression and heightened emotional lability.
- Intense anxiety, fear, guilt, and shame over medical, financial, legal, and personal relationships. Patients can also experience these feelings when they are unable to determine whether recent behaviors or events that took place during a period of psychosis were real or imagined.
- Anergia (lack of energy) and anhedonia (inability to feel pleasure) during periods of abstinence.
- Anger, paranoia, and irritability during periods of use or abstinence.

Patients who are in emotional turmoil may present with tangential (off-topic) or pressured speech or with slowed speech.

Cognitive Impairment/Clinically Significant Paranoia

Chapter 3 documents that the use of stimulants may produce significant cognitive impairment (Lappin & Sara, 2019; J. J. Mahoney, 2019; Wunderli et al., 2016) and may be accompanied by severe paranoia. Individuals have expressed concentration difficulties, impaired short-term memory, and a relatively short attention span. Patients using stimulants may also experience paranoia and altered persecutory perceptions of reality. To overcome these effects, clinicians must create a safe environment and gain patients' trust while collaborating with them to establish a treatment plan and treatment goals.

Ambivalence to Change/Skepticism About Treatment

Clinicians new to working with individuals with stimulant use disorders may be frustrated and angered by what they perceive as their patients' "lack of motivation" or "denial." Ambivalence is part of the recovery process and is often associated with behavioral changes that lead to improved health outcomes. Clinicians need to remember that individuals receive some benefit from using stimulants. Addressing positive aspects of stimulant use allows for an open discussion about the negative consequences and motivations for change. Motivational interviewing (MI) can help clinicians understand and navigate patients' ambivalence to change. For example, clinicians can ask questions such as "What is good about using stimulants?" and "What is not so good about using stimulants?" These questions can enhance engagement and prompt conversations about the reasons for behavior change.

In addition, stimulant use is a byproduct not only of the neurobiology of craving, but also of dysregulated reward systems (see Chapter 2 for discussion).

Craving

The experience of craving a substance characterizes almost all SUDs. However, the craving for stimulants may be more intense than any other cravings patients have experienced. Chapter 2 describes research on the neurophysiologic correlates of stimulant craving. People who use stimulants have likely experienced craving but may have little understanding of the biologic underpinnings of this experience.

The power and intensity of this craving response can make it exceptionally difficult for people with stimulant use disorders to interrupt their pattern of use (Sinha, 2013), especially early in treatment. (This is especially true for those who use the rapid-delivery routes of smoking or injection.) Some people cannot imagine how counseling or other forms of nonresidential treatment can help with this overwhelming sensation.

Other Challenges Frequently Encountered in Treatment

Clinicians treating patients with stimulant use disorders may also encounter:

- Dysphoria (sad mood) that occurs upon discontinuing stimulant use (MacLean & Sofuoglu, 2018).
- Compulsive sexual behavior (especially for those who use MA), which is often reported to be at least as difficult to control as the stimulant use (Berry et al., 2020; Loza et al., 2020).
- Discouragement given previous attempts in and outside of treatment to end stimulant use, only to experience return to even more severe levels of use.
- Mental disorders that co-occur with or are induced by stimulant use disorders. (See the discussion on assessing for co-occurring mental disorders in this chapter's "Complete Assessment of Clinical Needs" section and the Chapter 6 section "Individuals With Co-Occurring Mental Disorders.")

These issues may interact in various ways and affect individuals in different ways, resulting in treatment experiences that are unique to individual patients.

Treatment Needs of People With Cocaine Use Versus Methamphetamine Use Versus Prescription Stimulant Misuse

Limited empirical evidence exists for designating any one psychosocial approach as being differentially effective for these three stimulant groups: cocaine, MA, and prescription stimulants. Therefore, the treatment recommendations made in this chapter apply to people using cocaine and MA and misusing prescription stimulants. Regardless of the type of stimulant, care must be coordinated.

Maximizing Treatment Engagement

Make Treatment Accessible and Support Continued Participation

Treatment services need to be highly accessible, because people with stimulant use disorders are seen in a broad range of settings. Research suggests that numerous factors can hinder access to SUD treatment, including provider-related factors, such as shortages of SUD treatment workers and stigmatizing attitudes they may have about SUDs; market and environmental factors, like Medicare and Medicaid reimbursement issues; and insurance factors, like the availability of in-network clinicians in a geographic location (O'Brien et al., 2019). Several factors are vital to treatment engagement:

- **Accommodating patients' schedules.** Access to care is improved when treatment is provided during hours and days that are convenient for patients (i.e., not just during traditional 9 a.m. to 5 p.m. business hours). Daytime treatment programming may be helpful for patients who do not work and find boredom and lack of daytime activities significant contributors to substance use. Patients who work during the day may need to attend evening or weekend treatment sessions. Having a flexible treatment schedule allows clinicians to emphasize employment and other household responsibilities as protective factors in recovery.

WHY COORDINATED CARE IS SO CRITICAL

Coordinated care encourages members of the treatment team to work collaboratively and in a person-centered manner. Treatment occurs along a continuum that combines medical care with psychological and social interventions. Clinicians collaborate on treatment activities, which are tailored to each patient's needs. To facilitate coordinated care, clinicians should obtain a signed release form for all of the patient's care providers during the initial assessment. The patient may exit treatment quickly, so having a signed release form allows the treatment team to coordinate with other providers to help the patient reengage in treatment.

People with SUDs typically have numerous health- and behavioral health-related issues that interact with one another (Radfar & Rawson, 2014). Clinicians cannot effectively address SUDs using a fragmented approach that ignores other problems their patients are coping with and may or may not be receiving services to address. This interaction is why coordinated care is so critical to ensuring successful SUD treatment outcomes for patients.

Coordinated care models emphasize the engagement of multidisciplinary staff to fully address patients' physical and mental health needs through open communication, shared knowledge and decision making, individualized treatment plans, and the use of evidence-based best practices. For instance, a woman in treatment for cocaine use disorder might benefit from seeing a drug and alcohol counselor to help her with recovery and abstinence, a primary care provider to help monitor for any medical complications or conditions (e.g., those that accompany stimulant withdrawal), a psychologist or licensed professional counselor to help her better manage longstanding trauma symptoms and recent depressed mood, a psychiatrist to monitor her antidepressant medication, a social worker to assist in navigating access to public assistance programs (e.g., Temporary Assistance for Needy Families), a peer recovery support specialist to share common experiences and to serve as a mentor, and a case manager to help coordinate care.

Coordinated care ensures that all members of the care team are equipped with accurate, current information about a patient's diagnosis, history, treatments, and treatment goals. They work collaboratively to achieve those goals effectively, in a timely manner, and without redundancies. Coordinated care models have been scrutinized in research and deemed effective in the treatment of SUDs, particularly in primary care practices (LaBelle et al., 2016; Lagisetty et al., 2017; Pew Charitable Trusts, 2020).

- **Addressing concrete needs.** Research has demonstrated the importance of addressing patients' concrete needs, including transportation, housing, and finances (Browne et al., 2016; Priester et al., 2016). Clinicians may need to establish protocols for rapidly addressing transportation barriers (e.g., by providing bus fare cards or cab/rideshare fare, using vans to drive patients to and from their appointments). Locating SUD care settings near public transportation and in areas viewed as safe for evening visits improves accessibility for patients. Individuals with disabilities may need special accommodations (e.g., wheelchair access ramps, electronic doors, elevators, assistive communication devices). Clinicians and organizations can seek philanthropic funds as well as federal and state grants to assist with addressing these particular needs.
- **Providing onsite services.** Some logistical barriers can be overcome by providing onsite services, through agreements with subcontractors, or by referrals. These services can include providing onsite childcare, referrals to temporary shelters, vouchers for lunches, targeted financial assistance, and help with insurance paperwork or filing for disability. "Warm handoff" referrals where treatment staff personally contact personnel from other settings facilitate a successful referral process.
- **Reaching underserved populations.** In rural areas, small satellite sites may be needed to bring treatment closer to patients (e.g., using

space in primary care clinics or social service agencies). SUD care services should also offer telehealth technology—in place of or in addition to face-to-face treatment—for people with mobility or distance barriers.

Respond Quickly and Positively to Initial Inquiries

People who use stimulants may make their first contact with the SUD treatment system by telephone, through email, or via online contact (e.g., the treatment center's website, social media). They may drop by a clinician's office, an SUD care facility, or a campus health center. Some may make initial contact with treatment when they check in with their probation/parole officer or engage with justice-involved staff. The manner in which the receptionist, intake worker, clinician, or other staff person handles the initial contact may affect whether the individual decides to enter treatment. Methods that promote successful treatment engagement include:

- Answering telephone or online inquiries immediately for as many hours per day as possible (e.g., not placing people on hold, not requiring callbacks).
- Using 24-hour hotlines to facilitate late-night and weekend inquiries.
- Monitoring websites (including chat features) and social media accounts for new messages daily.

Seeking SUD care can be a difficult and painful process. Access to care improves when there is maximum flexibility in responding to all kinds of treatment inquiries.

Schedule Initial Appointments With Minimal Delay

An individual's decision to seek help may last for only a brief period, so the initial interview should take place as soon as possible after first contact. SUD treatment providers may not always have the resources to conduct thorough intake interviews immediately, and these interviews may not always be feasible (i.e., if the patient is in crisis and needs immediate intervention services for stabilization). If possible, interim services should be provided until a more thorough intake can be completed, including any organization- or state-mandated health screenings. For example, a brief trauma-informed interview or a partial intake session within 24 hours of contact might identify acute needs that require immediate attention. SUD treatment providers can also hold orientation meetings in lieu of placing names on waiting lists. The use of telehealth can help clinicians stay connected to patients who are waiting for admission to higher levels of care. If a waiting list cannot be avoided, staff members can draw on the patient's treatment readiness by telephoning to express concern about the patient's well-being, conducting mini-assessments, providing basic recommendations (e.g., attending a mutual-help group meeting), connecting patients to peer recovery support specialists, and working with the patient to locate other available treatment options within the same level of care. These efforts serve as a temporary bridge between the initial contact and a thorough interview and assessment.

Assessment Procedures To Enhance Treatment Engagement

Use Brief Screening Tools

Initial screenings that are brief, focused, and nonrepetitive enhance engagement. Free tools are available for clinicians to screen for SUDs, including stimulant use disorder and common co-occurring disorders, like alcohol use disorder and OUD. For example, clinicians can use the National Institute on Drug Abuse (NIDA) Quick Screen V1.0 to screen patients age 18 or older for general substance misuse. The NIDA-Modified Alcohol, Smoking and Substance Involvement Screening Test (NIDA-Modified ASSIST) V2.0 provides clinicians with additional questions to ask about recent and lifetime use of specific substances. (For both tools, see https://www.drugabuse.gov/sites/default/files/pdf/nmassist.pdf.)

Identify Patients' Expectations and Provide a Service Orientation

Identifying patients' expectations—as well as their fears, concerns, and anxieties—is important.

For example, patients with previous treatment experiences may have anxieties about treatment failure or trauma associated with treatment. Clinicians should work to address patients' worries through information and education about SUD care and the treatment process. This information can help decrease or eliminate fear of the unknown and create a safe space. A thorough, clear, and realistic orientation about stimulant use disorder treatment focuses on:

- Basic treatment components and processes, including length of treatment and continuing care/recovery planning.
- Rules of the SUD treatment provider.
- The SUD treatment provider's expectations about participation, such as the amount of time that is required and what happens at each phase.
- The patient's expectations of what the SUD services can do.
- Completion criteria.
- Expectations and possible treatment or care plan revisions if the patient continues to struggle with substance use.

Clinicians may need to repeat this information, because patients with cognitive deficits secondary to prolonged stimulant use may have difficulty with memory or trouble following long and complex instructions and explanations. Clinicians can address this issue with simple and clear introductory information and instructions. Patients with and without cognitive deficits can benefit from also receiving brief handouts with this information written at an appropriate reading level.

Offer Options

Motivation research demonstrates strongly and consistently that people are most likely to engage in an action when they perceive that they have personally chosen to do so. To perceive that one has a choice, alternatives must be available from which to choose (Köpetz et al., 2013; Miller, 1985).

A flexible, trauma-informed, recovery-oriented approach to treating individuals with SUDs includes, where appropriate, seeking patient input into the type of treatment initiated and the treatment setting (World Health Organization [WHO] & United Nations Office on Drugs and Crime [UNODC], 2020). This ethical, best practices approach to SUD treatment respects patients' autonomy (WHO & UNODC, 2020), provides them with options, and encourages their collaboration on the treatment approaches and strategies that are the most acceptable to and promising for them.

Involve Significant Others

Whenever possible, clinicians should involve family members and significant others who support the goals of the treatment process—including the initial assessment and intake processes—provided patients give written consent for their inclusion. Patients who do not have close family relationships may wish to involve close friends whom they consider family. Significant others benefit from receiving information about the development of SUDs, SUD care, assessment results, troubleshooting concerns for continued use, and the next steps for themselves and their loved one.

In the SUD care setting, clinicians can work with significant others to help them better understand their role in the SUD treatment process and their possibly complicated relationship with the person in treatment. Information on mutual-help groups for significant others, such as Nar-Anon and Al-Anon, should also be provided.

Staff Skills To Enhance Treatment Engagement

Several basic therapeutic skills can enhance treatment engagement in people with stimulant use disorders:

- **Treating patients respectfully and calmly.** Patients with stimulant use disorders may be frightened, disoriented, and cognitively impaired. Clinical and nonclinical staff members can alleviate fears about entering treatment by offering positive feedback, answering questions honestly, and letting patients know that staff members want to help them. When people with stimulant use disorders are treated calmly and respectfully, trauma responses and protective behaviors are rare.

- **Conveying empathic concern.** Clinicians who provide advice and recommendations in a friendly, engaging, empathic, straightforward, and nonjudgmental way can calm patients and increase the likelihood for positive treatment outcomes (Elliott et al., 2018).
- **Refraining from fighting resistance.** Fighting resistance to change or treatment is counterproductive and can harm the therapeutic alliance. Patient-centered, nonjudgmental, and nonconfrontational approaches are effective at improving outcomes in people with SUDs (Blonigen et al., 2015), including stimulant use disorders.

ADDRESSING PATIENT AMBIVALENCE ABOUT REDUCING SUBSTANCE MISUSE BEHAVIORS

People with SUDs may feel ambivalent about entering treatment or becoming abstinent, especially during the early stages of recovery (SAMHSA, 2019). Clinicians can use MI techniques to help patients with SUDs understand stages of change and resolve ambivalence toward behavior change by helping them directly confront and acknowledge their hesitation, while highlighting motivations or reasons to change (Lindson et al., 2019; Searight, 2018). Harm reduction techniques should be introduced to people who are not ready to enter formal treatment, to minimize risks associated with continued misuse of stimulants and other substances. (See the Chapter 4 text box "The Importance of Teaching Harm Reduction.")

Treatment

Treatment for individuals with stimulant use disorders involves procedures that address a series of clinical issues in a fairly predictable sequence. To organize treatment strategies, it can be helpful to view the treatment process as consisting of engagement, initiation, stabilization, and maintenance with a long-term support plan. These are not discrete or sequential phases of treatment; in some instances, they occur simultaneously or in a different order. For example, some patients engage in treatment and initiate abstinence at the same time; others may need to be stabilized prior to treatment initiation.

At the beginning of treatment, patients may feel overwhelmed and may struggle with motivation in the context of cravings and triggers. Treatment plans must give patients a clear framework for their treatment experience. This framework sets up specific expectations and provides patients with the benchmarks they need to plan their treatment participation and measure their progress. Treatment plans should include SMART goals: Specific, Measurable, Achievable, Relevant, and Time Bound. Setting SMART goals at the beginning of treatment can help patients achieve small gains toward recovery and keep them motivated to engage in further treatment.

Strategies for Engagement

Stimulant use withdrawal symptoms, specifically fatigue, dysphoric mood, and lack of motivation, may make initial engagement with SUD treatment clinicians difficult. Some patients continue to use stimulants initially. For this reason, the goal of patient interaction in this first phase may strictly be for the patient and clinician to initiate a therapeutic relationship that engages the patient in services.

Clinicians can reference level-of-care tools such as the American Society of Addiction Medicine (ASAM) Criteria to determine the appropriate level and duration of care for individuals with stimulant use disorders who are entering treatment. The ASAM Criteria provides guidance about multidimensional assessment and recommendations for placement in the continuum of care.

Several immediate priorities can encourage treatment engagement in the first weeks of treatment:

- Establish treatment attendance.
- Discontinue or reduce use of stimulants and secondary substances of misuse.
- Complete assessment of clinical needs.
- Resolve immediate crises.

Establish Treatment Attendance

Initiating a routine of treatment attendance involves giving patients:

- A clear expectation of when and where they should be attending treatment.
- A detailed explanation of what happens during treatment sessions.
- Reinforcement when they attend treatment on schedule.
- Reminders when they miss treatment.
- Guidance, if they need it, on how they will travel to treatment sessions.

During the initial weeks, patients may be early or late for their scheduled appointments or may show up under the influence. They may frequently be in crisis or a state of confusion. Patients may come to the treatment setting only when it is convenient. Some patients may need a higher level of care or another assessment. However, patients should rarely, if ever, be discharged from services under these circumstances.

Engagement with SUD care offers clinicians an opportunity to develop a trusting relationship with patients and to encourage appropriate behavior by reinforcing the importance of attendance. Engagement at this time is critically important because of the high dropout rates of this patient population at the start of treatment. Clinicians should highlight successes when patients attend treatment and celebrate those who reengage in treatment after taking a break from it.

Patients with stimulant use disorders need to hear that they should participate in and return to SUD care, even if they are using stimulants or other substances. Participation is enhanced with reminder cards, flyers, and schedules with the message that patients are expected to return for their appointments and that they will always be welcomed back. Agencies should have a policy regarding patients attending treatment while using substances. Clinicians need to communicate with patients about this policy.

Use incentives to reinforce treatment participation

A powerful strategy for increasing treatment involvement and establishing treatment engagement is to provide immediate positive consequences for desired behaviors to incentivize progress in treatment (Kirby et al., 2013). These incentives will differ among patient populations.

Some patients prefer gift cards for retail items or meal coupons; others appreciate clothes for themselves or their children or rebates for payments. Some SUD treatment providers hold brief graduation ceremonies or present certificates of completion. Kirby and colleagues (2013) demonstrated the effectiveness of incentives for substance-free urinalyses through the use of vouchers that could be traded for prizes (e.g., gift certificates). Research has shown that contingency management (CM) approaches demonstrate improved treatment attendance and retention (McDonell et al., 2013). Establishing what the incentives are, how they are obtained, and how the tasks associated with the incentives are verified should be discussed and provided in writing for patients to review.

See the "Contingency Management" section in Chapter 4 for more information.

Reach out to no-shows

Staff members should contact patients who fail to show up for scheduled visits to encourage their participation and inquire about possible crises that prevent them from fully engaging. Staff can send a letter, write an email, or phone or text patients to remind them that their participation is missed. This is also an opportunity to partner with peer recovery support specialists. Having peer recovery support specialists initiate contact with patients after no-shows can feel less threatening, and the patients may be more responsive. Policies and procedures for reaching out to no-shows should also be developed. Such policies and procedures need to conform to all applicable confidentiality requirements.

Create a positive environment

Research demonstrates that positive environments—ones that promote growth and well-being—improve mental health and social functioning (Corral-Verdugo & Frias-Armenta, 2016). Patients with stimulant use disorders may feel that they do not belong in treatment because they:

- Do not see themselves as having a disorder.
- Do not like the physical SUD care setting or location.
- Perceive that they do not need SUD care to address their stimulant use.
- Think they cannot relate to other patients.
- Think that prescription stimulant misuse isn't as serious or dangerous as using illicit substances.

Rather than attribute these beliefs to defense mechanisms, SUD care workers should take steps to improve patients' comfort level and experiences with the service. Administrative staff who answer the phone or greet patients at the front desk can set the tone by being welcoming.

Clinicians should work to create a trauma-informed safe environment for all patients. For example, SUD treatment providers can establish connections between new patients and peer recovery support specialists who are trained to dispel fears and concerns about SUD care and the treatment process. Peer recovery support specialists can use their lived experiences to help patients who have recently initiated treatment relate to patients who are already established in treatment.

Discontinue or Reduce Use of Stimulants and Secondary Substances of Misuse

Encourage abstinence or reductions in use immediately

After an initial assessment interview, clinicians should ask patients to agree to a trial period of abstinence or, if abstinence is not possible, reductions in substance misuse. The first interview can end with a specific plan for making these changes, such as abstaining from or reducing substance misuse until the next SUD care visit. Strategies to help patients initiate abstinence or reductions in substance misuse include preparatory group therapy that involves motivational enhancement techniques (Miller & Rollnick, 1991). These therapy sessions are brief but frequent (e.g., three to five times per week) and can include urine testing.

Individuals may be at a different stage of readiness for change (Prochaska et al., 1992) for each substance they use. For example, they may have decided to stop using stimulants but are still contemplating whether to stop drinking alcohol. Using MI strategies in individual and group therapy settings may move such patients from the contemplation phase to decision and action phases with regard to alcohol use.

Establish a daily schedule

Planning and scheduling are important ways to deter individuals with stimulant use disorder from spending a lot of time alone or having big blocks of time without planned activities. Typically, the daily routine of individuals with stimulant use disorders revolves around seeking, using, and recovering from the effects of stimulants. To break this pattern, patients are taught to use daily schedules to structure their lives and to help them monitor their actions. Using schedules is particularly critical during treatment initiation and stabilization. Clinicians can work with their patients to create simple daily and weekly schedules. Schedules should include time for:

- SUD care visits.
- Mutual-help meetings (e.g., 12-Step meetings, Self-Management and Recovery Training [SMART Recovery] meetings).
- Healthy meals.
- Healthy social activities.
- Exercise, recreation, and leisure.
- Medical and mental health appointments.

Initiate a urinalysis schedule

Establishing a regular urine drug screening protocol with patients at the onset of treatment helps alleviate fears about surveillance. There is a difference between supportive and surveillance urine toxicology screenings: Supportive urine toxicology screening can be a useful tool to assess the treatment plan and determine whether treatment is working. When discussing urine

toxicology results, the clinician should emphasize that the results reflect the effectiveness of treatment and are not meant to identify patient failures. The clinician should use nonjudgmental language, such as "The results indicate a return to use," and avoid value-laden terms like "clean" and "dirty."

Typically, urine toxicology testing tapers as treatment progresses, patients stabilize, and the clinical relevance of the tests become less important. Tests are spaced to ensure that results from the previous test are available before the next test is conducted and to avoid exceeding the sensitivity limits of standard laboratory testing methods, which generally means spacing tests no more frequently than every 3 days. More frequent testing generally provides little information of clinical relevance. However, if the patient appears intoxicated or has admitted to misusing substances, testing may need to be repeated to establish a baseline. SUD treatment providers also conduct random testing, although it is advisable to test on days that closely follow periods of high risk, such as holidays, paydays, and weekends.

Urine collection should be conducted in a trauma-informed way. Strategies for this process include the following:

- Provide patients with information about the urine collection process so they know what to expect (Scoglio et al., 2020).
- Allow patients to voice concerns about the urine collection process, and respond in an empathic manner (Scoglio et al., 2020).
- Acknowledge that the urine collection process can trigger uncomfortable feelings for patients who have experienced trauma.
- Allow patients to make choices about the urine collection process, when possible. For example:
  - Give patients several different options for what time of day the collection will take place.
  - Allow patients to choose which trained staff member will collect the specimen.
- Offer the patient assistance from a peer recovery support specialist throughout the urine collection process.
- Refrain from direct observation of specimen collection. Rather, collection should be supervised by a staff member. This entails requiring patients to leave their belongings outside the bathroom and to collect their sample without flushing the toilet.

To learn more about trauma-informed urine collection strategies, see Trauma Informed Oregon's tip sheet, *Trauma Informed Urine Drug Screenings* (https://traumainformedoregon.org/wp-content/uploads/2019/05/Urine-Drug-Screen-tip-sheet.pdf).

After the specimen has been collected, laboratory assistants or clinicians collecting urine samples use temperature strips or other methods if specimen tampering is a concern. Urine samples that staff suspect have been tampered with are not sent to the lab for testing. Instead, clinicians or other staff should repeat the urine collection, using the same trauma-informed process.

Encourage participation in mutual-help groups

Involvement in mutual-help groups should be encouraged throughout the continuum of care. Patients can be given a schedule of in-person meetings that are easily accessible to them, as well as information about online meetings. Although mutual-help participation has been shown to be associated with positive treatment outcomes (Carroll et al., 2012) and to be helpful for many, it is not a necessary condition for all patients to succeed.

Complete Assessment of Clinical Needs

Assess for co-occurring mental disorders

People with stimulant use disorders, especially people who use MA, may enter treatment exhibiting symptoms of mental disorders. However, not all these patients have a co-occurring mental disorder. Although these symptoms generally subside over several days (for cocaine use) or several weeks (for MA use), some individuals do have a co-occurring disorder.

Psychiatric comorbidity in patients using stimulants is dynamic and should be reassessed throughout the continuum of care. Clinicians need to initiate appropriate treatment, including medication, when patients are experiencing psychiatric symptoms, including psychotic features.

Expressions of suicidal ideation must be taken very seriously. The patient should be monitored for thoughts of self-harm and, when appropriate, provided with immediate intervention to ensure the patient's safety. After the crisis has passed, the clinician and the patient work together to develop a patient-centered safety plan that includes steps the patient can take if suicidal thoughts recur, methods for limiting access to lethal means, coping strategies the patient can use to reduce distress, and contact information for individuals who can help in a crisis (e.g., the patient's clinician, a family member, a close friend, hotlines). (Chapter 6 provides more information on treating co-occurring mental disorders.)

Assess for stimulant-associated compulsive behaviors

Research demonstrates an association between stimulant use disorders and a variety of compulsive sexual behaviors (Berry et al., 2020; Loza et al., 2020). These behaviors may include unprotected anal or vaginal intercourse, transactional sex, compulsive self-stimulation, compulsive seeking and viewing of pornographic material, and more diverse sexual activities and partners than the patient may have engaged in/with previously. Clinicians should screen for the presence of compulsive sexual behaviors in patients with stimulant use disorders.

Patients with stimulant use disorders can have tremendous concerns and anxieties about the compulsive sexual behaviors they engage in while using stimulants. Chemsex is a sexual encounter that is coupled with the use of mind-altering substances during intercourse (Giorgetti et al., 2017). Hypersexuality, sexual assault, and diverse sexual behaviors and partners in the context of stimulant use may result in concerns about sexual identity (Lyons et al., 2010; Ritchwood et al., 2016). When present, these feelings may be barriers to treatment engagement and retention.

Discussions on sexuality with this population must be conducted in a nonjudgmental and caring tone. Clinicians can discuss sexual risk reduction strategies, including initiation of nonoccupational postexposure prophylaxis (nPEP) or pre-exposure prophylaxis (PrEP) for HIV, condom use, serosorting (Centers for Disease Control and Prevention [CDC], 2020a) or seropositioning with partners of an unknown HIV serostatus or serodiscordant partners, and the need for regular sexually transmitted infection testing of both genital and extragenital (e.g., throat, rectum) sites.

Exhibit 5.1 includes key terms discussed in this chapter.

EXHIBIT 5.1. Key Terms

Serodiscordant: Having a different HIV infection status from that of one's partner.

Seropositioning: The act of choosing a sexual position based on HIV status, such that the partner without HIV is insertive during anal intercourse.

Serosorting: The act of choosing partners with the same HIV status.

Serostatus: An individual's HIV infection status (positive or negative).

Sources: CDC (2020a); Philip et al. (2010).

Studies suggest a link between gambling behaviors and stimulant use, particularly cocaine use, in adults and adolescents (Dufour et al., 2016; Ethier et al., 2020; Geisner et al., 2016). Among a sample of more than 6,000 high school students (Richard et al., 2019), 16.9 percent who reported past-year stimulant use or prescription stimulant misuse were identified as having at-risk/problem gambling. In addition, students who had used any stimulant drug in the past year were 2.7 times as likely to engage in at-risk/problem gambling as those who had not used stimulants. Students with crack cocaine use were 7.2 times as likely, and students with MA use were 8.3 times as likely, to engage in at-risk/problem gambling as those who had not used stimulants in the past year.

Some researchers have suggested that overlap exists between neuroanatomic pathways altered with cocaine use and with gambling behaviors, such as pathways linked to motivation, inhibition, reward processing, decision making, craving, and habit formation (Lorenzetti, 2018).

Resolve Immediate Crises

Patients may enter treatment in physical or emotional crisis. During early treatment sessions, clinicians should reassure patients that SUD services can provide or secure immediate attention to critical

medical and mental health issues. Providing patients with lists of community and mutual-help resources is helpful. These materials should include the names, addresses, telephone numbers, websites, and descriptions of mutual-help groups and resources, medical clinics, social service agencies, food assistance programs, trauma-informed services or services for victims of violence or abuse, temporary housing and shelters, women's shelters, and children's resources. A peer recovery support specialist or case manager can help gather such information and work with patients to follow through.

FOCUSING ON TREATMENT RETENTION

Treatment engagement is critical to getting people into SUD care, but treatment **retention** is equally critical. Simply put, people are less likely to die when in treatment than when not in treatment. Clinicians should not turn away individuals—even those considered likely to drop out from treatment—except in very rare cases. Any amount of time people with stimulant use disorders remain in treatment is an opportunity for them to stay alive and improve their health.

The dropout rate of people in treatment for stimulant use disorders is high (Kampman, 2019). For instance, pharmacotherapy studies of people with amphetamine use disorder report a 40- to 50-percent dropout rate (Lee et al., 2018). People with other SUDs, such as OUD, who also misuse stimulants may be at higher risk for treatment dropout than people with SUDs who do not also misuse stimulants (Tsui et al., 2020).

Using CM may retain people in treatment better than using other psychosocial therapies because it offers them an incentive to stay, such as money or vouchers (Ronsley et al., 2020). But many trials of medication and nonmedication treatments have failed to show a difference in treatment retention between the medication or therapy in question and a placebo or other comparator (Ronsley et al., 2020).

Strategies for Treatment Initiation

During the first several weeks of treatment, individuals may stop or at least reduce their use of stimulants. They may also maintain their use at the same level during this period. However, these first few weeks can be considered successful if patients have engaged in treatment and taken initial steps to reduce stimulant misuse. Achieving abstinence becomes the focus of treatment engagement after the first 1 or 2 weeks. Although no clear delineation exists between those patients **initiating** abstinence and those **maintaining** abstinence, the initiating period begins 2 weeks into treatment and lasts through 6 weeks of treatment, roughly speaking.

During treatment initiation, the goals are to:

- Identify and break the cycle of compulsive, repetitive stimulant use.
- Initiate a period of abstinence from all substance use.
- Encourage the establishment of behaviors that support abstinence and an abstinent social support network.
- Initiate changes in attitude, behavior, and lifestyle that help maintain abstinence.

The immediate priorities for facilitating treatment initiation are to:

- Alleviate stimulant withdrawal symptoms.
- Establish structure and support.
- Address secondary substance use.
- Establish contingencies.
- Address compulsive behaviors associated with stimulant use.

Alleviate Stimulant Withdrawal Symptoms

The initial period of stimulant abstinence is characterized by symptoms of depression, concentration difficulties, poor memory, irritability, fatigue, craving for the substance, and paranoia (especially for people with MA use disorder). Among patients who use MA, craving can be present for many weeks or months after achieving abstinence, putting them at high risk for recurrent use in the first few weeks of treatment (Courtney & Ray, 2014).

The severity of these symptoms vary with the severity of use and the route of administration. During the first several weeks of treatment, patients learn that they need proper sleep and nutrition to allow the brain to recover. Giving patients "permission" to

sleep, eat, and gradually begin a program of exercise helps establish behaviors that have long-term utility. Engaging in these behaviors helps patients begin to think more clearly and feel some benefit from their initial efforts in treatment.

Clinicians should continue to encourage abstinence from all illicit psychoactive substances.

ALLEVIATING WITHDRAWAL: CHALLENGING BUT POSSIBLE

Alleviating stimulant withdrawal symptoms is difficult, and withdrawing from stimulants carries a risk of harm to self or others. Fatigue, increased appetite, anxiety, paranoia, and insomnia commonly occur. Medication may provide some symptom relief (particularly for anxiety and sleep disturbance), highlighting the importance of including a psychiatrist or other prescribing professional in the patient's treatment. Rest, relaxation, exercise, and a healthy diet are also "prescribed" to aid in preventing or reducing symptoms.

Other steps clinicians can take to help patients overcome difficulties with withdrawal include (Grigg et al., 2018):

- Alerting patients of symptoms to expect and designing a plan to effectively manage these symptoms.
- Speaking with patients about how to stay motivated throughout the process.
- Monitoring and assessing on an ongoing basis for new or worsening symptoms, including physical symptoms requiring medical attention.
- Treating co-occurring medical and mental health issues as well as polysubstance use; these issues can complicate the withdrawal process.
- Offering supportive care during and after the withdrawal process so that patients receive emotional support and help with maintaining motivation.
- Optimizing sleep hygiene practices.

See the section "Management of Stimulant Withdrawal" in Chapter 3 for additional information.

Establish Structure and Support

Initiating abstinence from stimulant use is not a mental exercise. It requires a specific plan to encourage changes in behavior. The plan provides a basic structure and daily routine to replace the lifestyle dominated by seeking and using drugs and then recuperating from them. Structure, stability, and predictability come from a simple daily plan that patients follow and that is built on the patients' participation in SUD care. This plan includes:

- **Setting short-term goals.** Reasonably achievable, short-term goals are established immediately. One such goal is complete abstinence from all substances for 1 week. To address binge use, a comparable goal is to achieve a period of abstinence approximately twice as long as the usual period between binges. Brief, frequent counseling sessions can reinforce the short-term goal of immediate abstinence and establish a therapeutic alliance between the patient and the clinician. During each session, events of the past 24 hours are reviewed, and the clinician works with the patient to identify goals and provide recommendations for navigating the next 24 hours. Having the patient set up a social support system and undergo urine toxicology screening also contributes to establishing structure, support, and accountability.
- **Maintaining a daily schedule.** Daily scheduling remains an extremely important organizing strategy during treatment initiation. Proactively planning time is a direct counterpoint to the impulsivity people with stimulant use disorder previously experienced. With the clinician, patients review their successes and struggles with the schedule they prepared in the previous session and develop a schedule for the next week. Some patients find this task difficult and resist this "regimentation" of their time. Clinicians may counteract this reticence by creating a strengths-based schedule that celebrates patients' accomplishments for completing daily tasks.

- **Participating in urine testing.** Urine testing is not presented or used as an investigative tool or as a method to test patients' honesty. Rather, it is presented and used as a way to support initiating and maintaining abstinence. SUD treatment providers conduct urine testing for the primary stimulant and for secondary substances during clinic visits. During treatment initiation, urine testing takes place no less than once a week.

Address Secondary Substance Use

People with stimulant use disorders commonly use other substances, such as alcohol or cannabis. They often do not perceive their use of a secondary substance as problematic. Indeed, for many patients, their secondary substance use may not have been associated with adverse consequences or compulsive use. As a result, patients need help connecting any use of other substances to their stimulant use disorder. Patients learn that:

- Using another substance (e.g., alcohol; Staiger et al., 2013) increases the likelihood of recurrent use of the primary substance and treatment nonparticipation (Wang et al., 2017).
- Combining secondary substances of choice, such as opioids or benzodiazepines, with injection drugs (including stimulants) can lead to accidental overdose (Riley et al., 2016).
- Using alcohol with cocaine may increase an individual's perception of euphoria. Some research appears to show that the combination of alcohol and cocaine may be more reinforcing than either substance alone. This combination produces a toxic metabolite—cocaethylene—that can harm the liver and heart (A. W. Jones, 2019; Liu et al., 2018). (For more information about cocaethylene, see Chapter 3.)
- Using low doses and infrequently using secondary substances can have disinhibiting effects, serve as cues for stimulant use, and evoke potent conditioned responses that negatively affect treatment outcomes and retention (Wang et al., 2017).
- Helping patients understand why they use secondary substances can promote behavior change. For example, some patients may use benzodiazepines, alcohol, or opioids as "landing gear" after a particularly intense stimulant binge. The depressant nature of the secondary substance allows the patient to relax and sleep after several days of prolonged use (Walley, 2013).

Patients are sometimes ready for treatment for their primary substance of choice but are not ready to address their secondary substance use. Thus, secondary substance use is common during treatment initiation. Although clinicians should promote abstinence from all psychoactive drugs, patients who use a secondary substance are not discontinued from treatment solely because of this use. Rather, they receive treatment strategies to decrease the likelihood of using in the future. Patients struggling with more than one SUD need more help, not less.

Establish Contingencies

As described in Chapter 4, CM reinforces desired behavior by providing immediate incentives. It can be used to improve treatment outcomes, including abstinence. It sets concrete goals and emphasizes positive behavior changes.

CM targets a specific behavior, such as providing stimulant-free urine samples. The behavior should be easily and objectively measured. Each time patients accomplish this target behavior they receive a specific and desirable contingency or incentive. The link between the target behavior and the incentive is specified. A written contract documents the agreement and the duration, the mechanism for verifying task completion, and any changes over time in contingencies. Controlled research studies show that CM interventions for stimulant use behaviors are effective in helping people who use cocaine achieve and sustain abstinence through the end of treatment at least (De Crescenzo et al., 2018; Ronsley et al., 2020).

Address Compulsive Behaviors Associated With Stimulant Use

As noted above in the section on assessing for stimulant-associated compulsive behaviors, some patients with stimulant use disorders

develop significant compulsive behaviors, such as compulsive sexual behaviors (Berry et al., 2020; Loza et al., 2020) and gambling (Szerman et al., 2020). For these patients, interventions such as cognitive–behavioral therapy (CBT) or mindfulness meditation can be conducted that will decrease the likelihood of both the compulsive behaviors and recurrent stimulant use. Clinicians should provide a safe environment for such patients to talk about these behaviors, either in group sessions or in individual counseling.

Compulsive sexual behavior

Clinicians help patients address compulsive sexual behavior by:

- Helping patients recognize that sexual feelings, thoughts, and fantasies are very high-risk triggers that will be acted upon if they are not talked out. For people who have this problem, even normal, routine sexual thoughts and contacts can quickly become major triggers.
- Discussing safer and unsafe sexual behavior in the context of preventing recurrent behaviors.
- Providing specific and clear recommendations on strategies to identify partners who are low risk for recurrent compulsive behavior (e.g., looking for a partner with no history of substance use, avoiding anonymous sexual encounters).
- Addressing fears (e.g., sex without drugs will be boring or impossible). Many avoidance strategies used with psychoactive substances can be employed for patients in relation to sexual cues as well. For patients engaging in regular or binge patterns of chemsex, the sexual behavior (i.e., seeking a partner, engaging in intercourse, and recuperating) may be as reinforcing as, or more reinforcing than, the stimulant.
- Reminding patients to stay away from people, places, and things related to compulsive sexual behavior. Patients may also need to be reminded to avoid visiting certain neighborhoods where sex workers are located and using the Internet or dating apps to connect with others for sex.
- Providing education about reciprocal behaviors, in which one compulsive behavior is inextricably involved with another, and therefore engaging in the behavior associated with one condition can cause one to act out the behavior associated with the other condition.
- Collaborating with patients to reach the consensus that patients will abstain from sex with other people for 2 to 4 weeks.

Compulsive gambling

Patients with compulsive gambling are likely to respond best to CBT, with some research indicating support for cognitive therapies and MI as well (Potenza et al., 2019). Participating in Gamblers Anonymous provides patients with ongoing support from sponsors and other individuals with similar compulsions.

Harm reduction strategies may be useful for people who are not ready to enter treatment and abstain from gambling. These strategies teach how to engage in gambling with potentially fewer destructive consequences (e.g., limiting time spent in casinos, setting betting limits; Potenza et al., 2019). No FDA-approved medications exist for compulsive gambling.

Strategies for Stabilization

People with stimulant use disorders may be able to discontinue the use of cocaine or MA for periods without treatment. Abstaining from stimulants is the warm-up act; sustaining abstinence is the main event.

Categorizing strategies as being either for achieving abstinence or for maintaining abstinence is somewhat artificial and arbitrary, because many of the same principles apply and many of the same techniques are used over the course of treatment. Several important issues affect stabilization.

After achieving initial cessation of stimulant use, patients need support and strategies to stabilize their lives without the substance. Strategies for this include the following:

- Educate patients about managing subacute and protracted withdrawal symptoms.
- Educate patients about avoidance strategies.

- Provide patient education on factors that contribute to stimulant use.
- Teach basic conditioning.
- Identify cues and triggers.
- Develop action plans for cues and triggers.
- Enlist family participation.
- Help patients establish social support systems.
- Predict scenarios for return to use.
- Establish new activities.
- Respond to early slips.

Educate Patients About Managing Subacute and Protracted Withdrawal Symptoms

Once a patient discontinues stimulant use and develops healthier sleeping and eating habits, most symptoms collectively described as the "crash" typically lessen. (Chapter 3 provides more information about the crash concept in relation to withdrawal.) But the resolution of crash symptoms does not signal that the brain has returned to normal. Clinical observations show that significant biologic and psychological symptoms continue to hamper functioning 90 to 120 days after discontinuation of stimulant use, a phenomenon sometimes referred to as "the wall." Symptoms described include mild dysphoria, difficulty concentrating, anhedonia, lack of energy, short-term memory disturbance, and irritability.

The duration of these subacute (between acute and chronic) and protracted (long-lasting) withdrawal symptoms has been a subject of debate. Positron emission tomography scans have provided observable evidence of significant changes in brain functioning, such as decreased glucose metabolism, during protracted abstinence (Parvaz et al., 2011). Although caution about specifying the precise cause or time course of this syndrome is still warranted, neurophysiologic evidence appears to support this phenomenon. Clinicians should educate patients about the subacute and protracted withdrawal symptoms they may experience and when these symptoms may occur. Clinicians can encourage patients to continue using good coping skills to manage these symptoms, including stress management techniques, good sleep hygiene, and healthy eating habits.

Educate Patients About Avoidance Strategies

The process of identifying cues and triggers is dynamic and ongoing and changes over time. For example, as patients learn more about the associations between specific emotional states and stimulant cues, they may become increasingly able to identify, avoid, and defuse potential triggers. Several strategies can be introduced early in the treatment process to help patients avoid certain external or environmental cues that can be potent triggers for stimulant cravings and urges (Kampman, 2019):

- **Discarding drugs, drug paraphernalia, and materials related to substance use.** Patients find and remove all substances (including alcohol) and drug-related paraphernalia. Clinical oversight is imperative to determine the healthiest time to introduce this strategy (i.e., not in the middle of the worst withdrawal symptoms). Patients are encouraged to accomplish this task with the help of a treatment and recovery advocate such as a family member who does not misuse substances, an abstinent friend, a 12-Step sponsor, or a peer recovery support specialist. In addition, they discard materials associated with drug use, such as contact information of people who deal drugs and engage in sex work, pornographic materials, containers used to hold drug supplies, mirrors or special tables used to cut stimulants, spoons, straws or straw-type objects such as pens, razor blades, small or extra-small metal screens, ligatures, syringes not used for medical purposes, and weighing scales. Clinicians should discuss with patients how technology may remind them of past drug use behaviors, and why removing drug-specific content from their computers, mobile devices, and social media can therefore be a good idea. This effort may require an honest discussion with the individual assisting the patient, especially if this individual is not aware of the culture of use the patient was involved in or the patient's unique patterns and norms (e.g., drug hiding spots, pattern of use at home).

- **Breaking off contact with people who deal and use drugs.** Patients develop plans to stop contact with dealers and other people who use stimulants, including removing contact information and deleting call histories from mobile devices. They also develop plans to assertively encourage family members and close friends who use stimulants to seek help. It may be difficult to break off contact with people dealing and using drugs, because they could be family members or friends. Because of substance use, patients' healthy supports may no longer be in their life and the only supports they have may be people who use and deal drugs.
- **Avoiding high-risk places.** Patients identify places they strongly associate with stimulant use and come up with strategies for avoiding them. Strategies include taking different routes home from work, avoiding certain locations at certain times, and using a buddy system when going to a high-risk area. These high-risk places are sometimes living environments, neighborhoods, or work situations patients cannot avoid.
- **Developing basic refusal skills.** Patients learn to handle encounters with acquaintances and friends who still use stimulants by immediately leaving the situation after an encounter. They also prepare specific drug-refusal statements that they can make during encounters. Patients practice these statements in individual therapy sessions and with fellow group members.

Provide Patient Education on Factors That Contribute to Stimulant Use

Many factors, including cognitive changes, traumatic experiences, and weight gain, may affect patients' memory or perception of their stimulant misuse. Patients may require education to understand the conditioning factors associated with stimulant use. Similarly, they need information about the impact of stimulants and other substances on the brain and behavior, such as cognitive impairment and forgetfulness. Information about stimulant-induced behavior helps explain episodes of mood lability, altered perceptions of reality, protective behaviors, sexual compulsivity, and impulsivity.

Clinicians provide patients, especially those with MA use disorder, with education about acute withdrawal symptoms. Patients should also:

- Learn how other substances they may use have an important role in recurrent stimulant use.
- Receive education about the biopsychosocial processes of SUDs, treatment, and recovery.
- Discuss with their clinicians the stages of treatment and recovery, as well as specific tasks, goals, and pitfalls of each stage.
- Receive education about co-occurring mental disorders and their impact on SUDs, treatment, and recovery.

Teach Basic Conditioning

Although patients with stimulant use disorders may present with poor retention of information and other cognitive deficits early in treatment (Gould, 2010), they should be able to understand basic information about cues and triggers. Patients can be taught that:

- Conditioning factors elicit drug cravings and urges.
- These cravings and urges are a natural part of early recovery and are due to the neurologic changes that occurred from substance misuse.
- Methods are available to deal with these cravings and urges.

Clinicians should provide basic education about this conditioning process and how it applies to stimulant use disorders.

Identify Cues and Triggers

Stimulant (and other substance) use may become strongly associated with certain people, places, objects, activities, behaviors, and feelings (Rawson et al., 2021). Because patients with stimulant use disorders may have engaged in stimulant use hundreds or thousands of times, their daily life contains numerous reminders or cues—any stimuli (e.g., friends who use substances, intimate relationships, locations associated with substance use, drug paraphernalia, seasonal changes, holidays, moods, smells related to the trigger, sex-related websites, stress from increased educational demands) repeatedly paired with substance use

over the course of patients' SUDs. These cues can trigger stimulant cravings and stimulant use. Although patients often have some of the same cues and reminders (e.g., seeing the drug or the dealer), the specific type, strength, and number of cues differ widely from patient to patient. Clinicians should help patients identify and acknowledge the cluster of cues unique to their lives.

The primary tasks are to teach patients how cues are developed, how they trigger drug craving and use, and how cues and triggers can be identified. Cues can be unique to each patient. Patients need to be vigilant about identifying and managing their specific cues.

Develop Action Plans for Cues and Triggers

External and internal cues can be present in every aspect of life for people with stimulant use disorders. To combat these cues, patients can develop action plans with specific behavioral and cognitive steps to prevent cues from becoming triggers. Patients learn to avoid, wherever possible, external cues that are strong reminders of stimulant use and to leave situations that make them think about stimulants or experience cravings. They include these steps in their action plans and call on specific techniques to stop drug thoughts from becoming intense drug cravings.

Strategies that can immediately mitigate stimulant cravings that lead to drug use are vital to sustaining abstinence during stabilization. These strategies include:

- Leaving situations or events that are reminders of stimulant use.
- Using visualization techniques that help "turn off" thoughts about stimulant use.
- Calling a sponsor, recovery ally, or abstinent friend.
- Engaging in activities that promote healthy behaviors (e.g., taking a walk, exercising, using relaxation techniques).
- Using imagery to assist with developing responses to high-risk situations.
- Recognizing and managing sensory experiences that serve as cues and trigger cravings.
- Maintaining a gratitude list of what has been restored and gained from recovery.

Enlist Family Participation

Clinicians should encourage families and significant others to participate in treatment when appropriate and after receiving patient consent. As part of this participation, families should receive education about SUD care and their possible role in treatment and recovery processes. Family members also need information about the effects of stimulants on the brain and behavior to understand stimulant-induced actions. By receiving a primer on the conditioning aspects of stimulant use disorders, they can come to understand craving as a conditioned response.

Family members may benefit more from clear and simple information than from concepts. The ideal format is a group psychoeducational session consisting of a brief instruction session and a group discussion. This process elicits discussions and examples of family members' experiences. Family participation is an opportunity for staff members to informally review available SUD care in case other family members need additional services or referrals. Family members may benefit from Community Reinforcement and Family Training (CRAFT), which is an approach that teaches family members and concerned significant others strategies for encouraging the family member who is misusing substances to change his or her substance use behaviors through positive reinforcement and enter SUD treatment (SAMHSA, 2020k). For more information about CRAFT, see SAMHSA's TIP 39, *Substance Use Disorder Treatment and Family Therapy* (https://store.samhsa.gov/product/treatment-improvement-protocol-tip-39-substance-use-disorder-treatment-and-family-therapy/PEP20-02-02-012).

For patients who are actively working on building their recovery and who have a stable marriage or relationship with someone who is not using stimulants, involving the spouse or partner in family and couples therapy can be valuable.

This strategy can improve communication skills and the relationship. Research shows that marital and relationship counseling has positive effects on treatment outcomes for individuals with alcohol use disorder (O'Farrell & Clements, 2012). However, few studies have focused on stimulant use. Clinicians should screen for intimate partner violence (IPV) before initiating relationship counseling. Behavioral couples therapy is generally appropriate when (SAMHSA, 2020k):

- The partner does not have active problems with substance use (except for nicotine).
- There is no indication of active or acute risk for IPV. The clinician should use clinical judgment and consult state laws on mandatory reporting requirements when evaluating IPV and considering whether to recommend behavioral couples therapy.
- Neither partner has a significant co-occurring mental disorder.
- The partners are married or living together.

(See also the "Family and Couples Therapy" section in Chapter 4.)

Help Patients Establish Social Support Systems

Patients with stimulant use disorders typically have low frustration tolerance and are sometimes restless in the therapeutic process, especially during initiation and stabilization. Nevertheless, these patients should be introduced to a structured and therapeutic group process as soon as possible (generally within a few days). These groups provide a preexisting support network and a forum for openly talking about problems associated with early recovery.

At the same time, participating in mutual-help meetings, such as Cocaine Anonymous, Celebrate Recovery, Crystal Meth Anonymous, Narcotics Anonymous, SMART Recovery, and Wellbriety, should be strongly encouraged. Some patients benefit from short-term goals associated with attending 12-Step meetings, such as participating in 90 meetings in 90 days. Participating in these meetings reinforces the importance of implementing daily structure, immersing in treatment, and creating healthy habits.

Also, patients should be encouraged to reestablish relationships with friends and family who are not using substances and, perhaps, to seek out recovery allies who can be mentors/sponsors. These allies could be 12-Step sponsors whom patients can call during crises to discuss shared experiences in recovery. An abstinent social support network can be a useful tool for patients who need additional support throughout recovery.

Predict Scenarios for Return to Use

Research literature describes several predictors for recurrent stimulant use by patients who are trying to maintain abstinence (Brecht & Herbeck, 2014; Sánchez-Hervás & Llorente del Pozo, 2012):

- **Continued or other drug use leading to recurrent stimulant use and treatment nonparticipation.** Several studies have reported a relationship between alcohol use and recurrent cocaine use, and other studies support this same pattern with alcohol and cannabis for MA treatment nonparticipation (Staiger et al., 2013; Wang et al., 2017).
- **Return to networks of people actively using substances.** The clinical experiences of TIP consensus panel members suggest that returning to networks of people who use substances is a primary reason for an individual's recurrent use.
- **Sexual behavior associated with stimulant use.** Particularly for men, chemsex experiences and sexual behaviors associated with stimulant use (e.g., having sex with sex workers, viewing pornography or sexualized videos of people using substances) are an important contributor to recurrent stimulant use (Berry et al., 2020; Loza et al., 2020).
- **Craving triggered by external and internal stimuli.** People who use stimulants report that conditioned cues have a powerful influence on the production of craving and contribute to a return to stimulant use (Tolliver et al., 2010).
- **Negative affective states.** Emotional states can be important antecedents to recurrent substance use (Kober, 2014). People who use stimulants typically find anger, depression, loneliness, frustration, and boredom difficult to manage. These feelings can initiate a behavioral

sequence that ends in stimulant use. However, celebratory and positive emotions associated with using can also be consequential if they are not identified.

- **Academic demands.** Studies have shown a relationship between prescription stimulant misuse and academic demands among college students (Weyandt et al., 2016), particularly when they have experienced academic impediments or grade strain during the previous academic year (Norman & Ford, 2018). Students who return to school at the beginning of a new academic year and continue to experience academic difficulties may return to misusing prescription stimulants.

Establish New Activities

People with stimulant use disorders typically have spent a considerable amount of time leading up to treatment entry on getting stimulants, using them, and recuperating. During the initial 6 to 12 months of abstinence, patients may not know what to do with the time that they once devoted to substance use. They likely have few social and recreational outlets. Finding and participating in new, positively reinforcing activities and interests are important parts of stabilization and imperative to sustaining recovery. The community reinforcement approach presented in Chapter 4 is an intervention that helps patients reorganize their social lives and engage in new activities.

Respond to Early Slips

Patients may return to stimulant use sporadically throughout stabilization. Patients should be told that substance use could occur during this time, despite their hard efforts to abstain, and that even small treatment accomplishments and successes should be celebrated. Substance use is a part of the disorder and could be a sign that the treatment plan needs to be changed or that the treatment approach is not working and other treatment options should be explored.

During stabilization, substance use is not a sign of poor motivation but instead reflects multiple factors, including cues and triggers and neurochemical imbalance. Slips can be thought of as a behavioral indicator of conflict and ambivalence about stopping. When explaining this to patients, clinicians need to clearly communicate that they are not giving patients permission to use, but rather, trying to keep patients engaged in treatment by immediately addressing the slip. Continued engagement in treatment throughout stabilization, even if a slip occurs, is the best way for patients to progress and succeed.

Early slips are opportunities for adjusting the treatment plan and trying other strategies. In the process, patients gain an appreciation of the strength of cravings and triggers, learn new methods to manage and reduce them, and examine whether the treatment plan is adequate and appropriate or needs adjusting (e.g., increasing the frequency of contact with their treatment team, attending more mutual-help meetings, spending more time with their sponsor, volunteering).

Early slips should be considered part of the learning process and not be thought of as failures. When slips occur, clinicians make a verbal or behavioral contract with patients regarding short-term achievable goals. These goals include simple tasks such as not using psychoactive substances for the next 24 hours, attending a specific number of clinic sessions over the next couple of days, and bringing a significant other or family member to the next treatment appointment. During this process, patients identify areas to address or improve. This focus on cues and triggers helps determine whether the treatment plan should be adjusted. Reviewing the past day, week, and possibly month of patients' activities, behaviors, and emotions is a good therapeutic tool to identify signs that they were at high risk of substance use.

Strategies for Maintenance

The strategies for maintaining recovery draw primarily from the behavioral and cognitive–behavioral models described in Chapter 4. An overall theme of these models is that people require support even after stabilization to maintain success in treatment.

There are several immediate and long-term priorities for patients who are stable and want to maintain abstinence from stimulants:

- Teach functional analysis of stimulant use.
- Maintain positive reinforcement.
- Teach relapse prevention techniques.
- Provide psychoeducation about preventing a return to use.
- Teach drug refusal skills.

Teach Functional Analysis of Stimulant Use

A functional analysis teaches patients how to understand their stimulant use so that they can engage in solving problems in a way that reduces the probability of future stimulant use. The core components of a functional analysis are:

1. Teaching patients to examine the types of circumstances, situations, thoughts, and feelings that increase the likelihood that they will use stimulants.
2. Counseling patients to examine the positive immediate, but short-term, consequences of their stimulant use.
3. Encouraging patients to review the negative, and often delayed, consequences of their stimulant use.

Maintain Positive Reinforcement

Employing CM agreements can help sustain initial treatment gains. These agreements are detailed in a written behavioral contract and include specific objective criteria such as urinalysis results and attendance at group therapy sessions. Systematic and consistent implementation of agreements is crucial. Reinforcement is delivered promptly when the contract is satisfied and withheld when it is not. Frequent, positive reinforcement of success is critical. Clinicians should always incentivize positive behaviors while trying to avoid punishing negative behaviors because positive reinforcement is a more effective way of shaping behavior than punishment (i.e., punishment can be counterproductive and can lead to avoidance). The goal of positive reinforcement is to encourage patients to continue growing their strengths in recovery rather than to emphasize their struggles.

Teach Relapse Prevention Techniques

Relapse prevention techniques help patients recognize high-risk situations for substance use, implement coping strategies when confronted with high-risk events, and apply strategies to prevent recurring use should an episode of substance use occur (Glasner-Edwards et al., 2017; S. Grant et al., 2017; Marlatt & Gordon, 1985). The techniques involve several cognitive–behavioral interventions that focus on skills training, cognitive reframing, and lifestyle modification.

Relapse prevention techniques fall into several categories:

- Acquiring, through psychoeducation, knowledge about the process of returning to substance use and how to interrupt it
- Identifying high-risk situations and warning signs for a return to use
- Enhancing self-efficacy in dealing with high-risk situations
- Counteracting euphoric recall (i.e., pleasant memories of drug use) and the desire to test control over use
- Developing a balanced lifestyle that includes healthy leisure and recreational activities
- Responding safely to slips to avoid escalation into a full-blown return to use
- Developing coping and stress management skills
- Learning executive function skills
- Learning educational enhancement skills, including time management, study skills, and test-taking strategies

As reviewed in Chapter 4, a substantial body of literature exists on the use of prevention techniques for stimulant use. SAMHSA's Matrix Manual (Center for Substance Abuse Treatment, 2006) has a section on conducting prevention training in a group setting, along with handouts and instructions for their use. The following treatment themes are critical to the relapse prevention-based treatment strategies.

Provide Psychoeducation About Preventing a Return to Use

SUD treatment providers often deliver prevention-related information in psychoeducation groups.

These groups consist of education, peer support, and recovery-oriented therapy. The group leader provides a brief discussion or shows a short video on a topic relevant to the group, then encourages group members to discuss the topic as it relates to them. The group leader also encourages group members to discuss their current problems, challenges, and successes.

Topics typically discussed in a psychoeducation group for patients with stimulant use disorders include:

- Understanding cravings and conditioning.
- Managing protracted withdrawal.
- Understanding stimulants' effects on the brain.
- Identifying and addressing high-risk situations.
- Developing coping and stress-management skills.
- Enhancing self-efficacy in dealing with high-risk situations.
- Counteracting euphoric recall and the desire to test control over use.
- Developing a balanced lifestyle.
- Responding safely to slips to avoid escalation of substance use.
- Establishing behavioral accountability.

Some of these topics are explained below.

Enhancing self-efficacy in dealing with high-risk situations

When patients are establishing abstinence, they work to acquire skills for negotiating high-risk situations for return to use. In particular, patients learn how to identify cues and triggers, develop action plans for cues and triggers, and manage withdrawal symptoms.

Once patients learn to identify, manage, and avoid high-risk situations for return to use, clinicians and patients determine whether patients can confidently use those skills in real-world situations. With clinician guidance, patients evaluate their level of confidence in using avoidance and refusal skills and determine whether they need to work on their skills or develop additional skills to manage specific situations. Self-efficacy should be therapeutically developed from the start of treatment.

Counteracting euphoric recall and the desire to test control over use

Two important risk factors for return to stimulant use are euphoric recall and the desire to test control over stimulant use. "Euphoric recall" refers to remembering only the pleasures associated with stimulant use and not the adverse consequences. Euphoric recall is a potent risk factor for recurrent substance use because it minimizes patients' perceptions of stimulants' danger, promoting an ambivalence about quitting. "War stories" that include euphoric recall and selective memory act as powerful triggers. Clinicians should strongly discourage patients from retelling them in treatment and recovery groups, unless done in a therapeutic manner directed by the clinician.

After beginning to feel healthier, more in control of their lives, and free of some of their stimulant-related problems, some patients feel ready to try a new approach to stimulant use. For example, some may believe that, if they are careful, they can use stimulants without losing control over their use. Others may think that this is a good time to try using stimulants "one last time" to find out whether they can do it without escalating into compulsive use and loss of control. Even the realization that they do not have money or are in debt may create a desire for "easy money," and patients may think they can sell drugs without using them. Clinicians must explain to patients that urges to test their control over stimulant use are a powerful warning sign for return to use. Patients should reach out to their 12-Step or other mutual-help group sponsor for support if they experience this warning sign.

Developing a balanced lifestyle

Treatment, recovery, and relapse prevention efforts should address biologic, psychological, social, and spiritual areas of life. Patients are taught the value of recreational and leisure activities and how to incorporate them into their recovery. Many recreational activities offer opportunities for patients to learn or practice social skills, such as cooperation, teamwork, healthy competition, and leadership. Patients may be experiencing anhedonia and depressed mood, which could make activities less enjoyable. Clinicians can provide psychoeducation that encourages patients

to take small steps by gently pushing through the anhedonia and depressed mood as long as they are not associated with an untreated or undertreated co-occurring disorder. Clinicians should reinforce that, although it may be difficult to initiate a recreational or healthy leisure activity, patients tend to feel better during and after active participation in the activity.

Vigorous physical exercise helps patients feel good about themselves, decreases anxiety and depression, increases appetite, increases healthy cholesterol, stabilizes blood pressure, increases heart health, and helps patients sleep better. Clinicians inform patients about the value of regular exercise and how to incorporate it into their daily or weekly schedule. Studies on patients receiving MA treatment link structured aerobic exercise and resistance training to better mood outcomes (Morris et al., 2018; Rawson, Chudzynski, Gonzales, et al., 2015) and better overall outcomes (Rawson, Chudzynski, Mooney, et al., 2015).

Patients in treatment for stimulant use disorders may have problems related to nutrition and diet (Wiss, 2019). Stimulants decrease appetite, leading to decreases in the intake of calories and nutrients. Patients with stimulant use disorders may eat impulsively and consume foods with negligible nutritional value. A professional nutritionist can conduct a formal nutritional assessment and provide patients with guidance on eating a healthy and balanced diet, eliminating infrequent and impulsive eating, and planning and preparing nutritious meals. Clinicians should screen patients for eating disorders when clinically necessary, as patients may use stimulants intentionally to facilitate disordered eating behaviors (e.g., suppressing appetite).

Responding safely to slips to avoid escalation of substance use

Slips and episodes of recurrent use are not failures, but they do indicate a need to adjust the treatment plan. After patients experience a slip, clinicians schedule a return-to-use-specific session as soon as possible to reassure patients that they can get back on track. Clinicians and patients review the events leading up to the slip and identify warning signs. Patients consider the events of the previous weeks, such as changes at work, at school, in social networks, or in family situations. Similarly, they closely examine events and issues that occurred in treatment, such as transitioning to different clinicians, moving from one phase of treatment to another, or learning about or observing events happening to another patient.

Clinicians provide psychoeducation to patients and family members about each stage of change and how their specific characteristics can affect treatment, relapse, and recovery. Clinicians help patients identify specific steps to avoid future substance misuse if a similar set of circumstances recurs. Slips prompt revisions in the treatment plan. Revisions may include increasing attendance at mutual-help meetings, participating in individual counseling for a brief period, recruiting a 12-Step sponsor, developing additional positive coping mechanisms, or participating in more leisure activities. Patients should get recommendations and guidance to handle the negative thoughts and feelings caused by slips.

Teach Drug Refusal Skills

People in recovery from stimulant use may be surrounded by individuals who continue to use substances. The ability to refuse stimulants when offered requires a special type of assertiveness. Drug refusal training reminds patients that anyone offering them stimulants does not have their best interests in mind. Patients learn strategies to discourage others from offering them substances and to refuse offers of stimulants (Meyers et al., 2011). They also learn to reinforce their commitments to abstain from use and to feel good about themselves for not using.

Patients should incorporate the following elements into their encounters with individuals offering them stimulants or inviting them into high-risk situations:

- Say "No" immediately.
- Tell the individual making the offer not to make such offers now or in the future.
- Make eye contact; adopt an expression and tone that indicates the seriousness of the request.
- Change the conversation to a different topic.

- Suggest healthy alternative activities (e.g., go for a bike ride or out for a meal), if the individual is someone the patient wants to be with.
- Set boundaries with friends and family members before meeting with them by establishing that the patient is in recovery and will not use substances.

The clinician conducts role-playing exercises with patients (Meyers et al., 2011) and guides them through scenarios involving specific individuals, specific times of the day, and specific situations. Patients practice behaviors that they can use in real-life situations. Away from the treatment setting, patients should engage in additional role-playing exercises with family members and significant others to become more comfortable with these new behaviors.

Other Strategies Useful in Maintaining Abstinence

Provide Relationship Counseling

The overall goals of relationship counseling (i.e., couples counseling) are for couples to develop effective communication skills to help achieve and maintain abstinence, change their lifestyle, increase enjoyment in their relationship, and learn better ways to solve problems. Information about relationship counseling in the context of SUD treatment can be found in SAMHSA's updated TIP 39, *Substance Use Disorder Treatment and Family Therapy* (https://store.samhsa.gov/product/treatment-improvement-protocol-tip-39-substance-use-disorder-treatment-and-family-therapy/PEP20-02-02-012).

Provide Social and Recreational Counseling

This counseling focuses on helping a patient develop new interests and participate in recreational and social activities that do not involve using stimulants or other substances. The clinician and the patient evaluate possible activities based on whether they involve others, how much time and expense they require, whether the patient is likely to enjoy them, and how much physical exertion they require. Potential coparticipants are identified. Next, the steps required to engage in the activities are identified (e.g., finding out how to join a community basketball league). These steps should be incorporated into the treatment plan.

Provide Social Skills Training

Social skills training helps patients learn and practice skills that facilitate choosing nonsubstance alternatives for socializing, engaging in recreation, and coping with stressful interpersonal situations. The goal is to help patients experience more positive reinforcing effects and fewer negative, aversive effects from social interactions. The training is especially helpful for patients who have problems meeting nonsubstance-using peers or interacting with coworkers, or who feel uncomfortable in social settings. Clinicians can use role-playing to help patients learn social skills for use in various scenarios.

Provide Vocational Counseling

Vocational counseling and vocational rehabilitation services focus on helping unemployed patients locate jobs and on improving the employment situations of patients with unsatisfactory jobs or jobs that carry a high risk for recurrent use. Individuals with SUDs may have difficulty finding gainful employment, which can negatively affect treatment-seeking and treatment outcomes (Miguel et al., 2019). In 2017, 31 percent of individuals in the United States admitted to treatment for any SUD were unemployed, compared with 3 percent of the general population (Center for Behavioral Health Statistics and Quality [CBHSQ], 2019). Among individuals who use stimulants, rates of unemployment ranged from 37 to 43.5 percent (CBHSQ, 2019). Research has shown that acquiring employment during SUD treatment is associated with better treatment outcomes throughout the continuum of care (Miguel et al., 2019).

Clinicians should connect patients to vocational rehabilitation services and supports, which can include assistance with job searching, job placement, on-the-job training and supports, costs of living, and other services required for obtaining and maintaining employment (e.g., occupational licenses, tools, equipment; Lusk & Veale, 2018). Ideally, vocational counseling or vocational rehabilitation services should begin as soon as

possible in treatment. However, people in recovery from stimulant use disorders may experience psychotic symptoms and an inability to concentrate that could interfere with initiating vocational services. Vocational services can be initiated after patients' psychotic symptoms have improved and their ability to focus has returned.

For more information about vocational services, see SAMHSA's TIP 38, *Integrating Substance Abuse Treatment and Vocational Services* (https://store.samhsa.gov/product/TIP-38-Integrating-Substance-Abuse-Treatment-Vocational-Services/SMA12-4216), and Integrating Vocational Services Into Substance Use Disorder Treatment *Advisory* (https://store.samhsa.gov/product/integrating-vocational-services-substance-use-disorder-treatment/pep20-02-01-019).

Provide Treatment and Services To Help Patients Manage Co-Occurring Disorders

Having co-occurring substance use and psychiatric disorders can make achieving and sustaining recovery from stimulant use disorders more difficult. Pharmacologic and psychosocial interventions are available to help patients with common co-occurring psychiatric illness, like depression and anxiety. Clinicians should encourage patients to receive behavioral health services as needed and provide referrals, resources, and support to enhance treatment engagement and retention. Additional treatment considerations for co-occurring disorders are presented in Chapter 6.

Monitor Medications for Treatment of Co-Occurring Alcohol Use or Opioid Use Disorders

When clinically indicated, clinicians use evidence-based medications to treat patients with co-occurring secondary SUDs. Clinicians consult with an experienced SUD treatment provider to determine the best course of pharmacologic treatment for patients based on current use, medical comorbidities, and patient preference.

For patients with co-occurring alcohol use disorder, the FDA-approved pharmacologic therapies are naltrexone, acamprosate, and disulfiram. For patients with co-occurring OUD, the FDA-approved pharmacologic therapies are methadone, buprenorphine, and naltrexone. For additional treatment considerations specific to OUD, see Chapter 6.

Recommend Mutual-Help Strategies

Mutual-help strategies can be valuable components throughout treatment. These strategies, especially those that focus on substance use, are especially valuable as ancillary activities that support the treatment goals of maintaining abstinence. In general, mutual-help programs assist patients in developing appropriate social skills, creating healthy social networks, establishing healthy intimate relationships, and engaging in substance-free healthy activities. They also provide opportunities for patients to learn socially appropriate mores and norms, improve their ability to receive and give advice, and learn how to mentor others.

The most frequently used and available mutual-help strategy is the 12-Step approach. Most cities have many Alcoholics Anonymous group meetings every day, and most larger cities have numerous Cocaine Anonymous and Narcotics Anonymous meetings. Online meetings are also available. Clinicians or peer recovery support specialists provide patients with information on the 12-Step process, such as meeting format, the spiritual component, the basic content and meaning of the 12 Steps, the role of the 12-Step sponsor, and the role of anonymity.

Although SAMHSA's TIP consensus panel recommends participation in a 12-Step group, clinicians should not require patients' participation. Rather, clinicians encourage 12-Step participation, especially because 12-Step programs describe themselves as voluntary mutual-help programs of recovery. Similarly, patients' family members should be encouraged to participate in mutual-help programs for family members, such as Al-Anon. Scheduling onsite meetings is a good way to encourage participation. Both patients and family members receive lists with the addresses and times of meetings, and programs provide transportation when necessary and possible.

Other mutual-help strategies that do not follow the 12-Step approach are available. These programs include Save Our Selves, SMART Recovery, Wellbriety, and Women for Sobriety. Groups without a substance use focus, such as faith-based groups, cancer survivor groups, and domestic violence survivor groups, can also support patients' progress in treatment.

Next Steps

Treatment maintenance ends only when patients achieve the treatment goals documented in their treatment plans and agree with their clinicians to stop ongoing treatment.

The end of treatment maintenance is a good opportunity for patients to review their treatment experiences. Clinicians engage in activities and exercises that help patients examine their treatment successes, the areas where they experienced problems, and the ways in which they addressed these problems. Similarly, clinicians help patients evaluate the strength of their current recovery process and identify areas where they need strengthening. Through this process, the clinician and the patient develop a continuing care treatment plan that identifies remaining treatment needs and strategies that will be used to meet those needs.

Treatment maintenance ends with a transition to a lower level of care, not a termination. Abrupt termination is avoided. SUD treatment facilities should have strategies that encourage patients to remain connected with care (i.e., using a recovery-oriented system of care), because SUDs are chronic lifelong conditions that can have many pathways to recovery. Furthermore, clinicians should educate patients about the continuity of care available to them and encourage patients to engage with this care when they need it. SUD treatment facilities can help patients remain in contact by offering:

- Continuing care group meetings that patients can attend weekly or more often as needed.
- Individual counseling or psychotherapy that patients can participate in on an as-needed basis.
- Family therapy that is available to patients and their families or to family members.
- Alternative activities that focus on recreation, leisure, education, and social activities (e.g., dances, field trips, barbecues and picnics, holiday events, lectures on topics not necessarily related to treatment or recovery).
- SUD treatment alumni meetings that all graduates can attend.
- SUD treatment alumni clubs that sponsor regional meetings and events (e.g., speakers on motivational and educational issues).
- Peer mentoring programs in which SUD treatment alumni help new patients by sharing experiences, advice, and service expectations.
- Surveys and newsletters that are sent to SUD treatment alumni as a way to collect posttreatment data, encourage participation in alumni activities, and motivate contact with SUD care staff, especially during times of need.

For more information about recovery-oriented systems of care, see SAMHSA's *Recovery-Oriented Systems of Care (ROSC) Resource Guide* (https://www.samhsa.gov/sites/default/files/rosc_resource_guide_book.pdf).

Summary

Clinicians have multiple strategies that they can implement across the continuum of care to maximize patient engagement in treatment for stimulant use disorders. These strategies include discussing treatment expectations, offering multiple treatment options, using a person-centered and respectful approach, conveying empathy and concern, and collaborating with patients to develop a clear, flexible treatment plan and framework. As patients transition to long-term recovery, clinicians can help them maintain treatment gains by teaching functional analysis of stimulant use, reinforcing positive behaviors with incentives (i.e., using CM), offering relapse prevention tools, teaching ways to avoid high-risk situations, providing social skills training, encouraging participation in mutual-help activities, and linking these patients to vocational counseling. Given that patients with SUDs typically have numerous health- and behavioral health-related issues, coordinated care models that include a wide range of multidisciplinary staff can enhance treatment implementation.

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