Chapter 12
Medical Family Therapy in Alcohol and Drug Treatment

Kristy Soloski and Jaclyn Cravens Pickens

The prevalence rates of licit and illicit substances in the United States of America suggest that medical family therapists (MedFTs) and other behavioral health providers will undoubtedly encounter individuals or families struggling with substance use. In any given year, around half of Americans use alcohol, a quarter are binge alcohol users (i.e., five or more drinks on a single occasion), and about 6.5% are heavy alcohol users (i.e., those who binge 5 or more days in a 30-day period) (Substance Abuse and Mental Health Services Administration 2014). For illicit drugs, around 9.4% of Americans are current users, the majority of which are using marijuana (SAMHSA, 2014). A MedFT involved in an integrated behavioral healthcare (IBHC) team to treat alcohol, and drug issues will need to be aware of the complex physiological and social effects that substances can have, as well as the interplay of these factors on the disorder. In some cases, patients may see the use as benign and underreport it, and it may have unexpected effects on the patient or family system that are not immediately recognizable. Other patients may present for treatment for a different problem while at the same time having an undiagnosed or untreated substance use problem. MedFTs are crucial members of treatment teams who can attend to these intricacies.

Although alcohol and drug issues can present and be treated across a variety of different settings, treatment will require an IBHC team to achieve the best results. There is a complex interplay between substance use and physiological, social, and psychological outcomes. Alcohol and drugs act on the body's central nervous system (CNS) (Inaba & Cohen, 2014), and with repetitive use they can alter the body's homeostasis—which can potentially lead to physical or psychological dependency (American Psychiatric Association [APA], 2013). Excessive substance use can

K. Soloski (✉) · J. C. Pickens
Department of Community, Family, and Addiction Sciences, Texas Tech University, Lubbock, TX, USA
e-mail: Kristy.Soloski@ttu.edu

T. Mendenhall et al. (eds.), *Clinical Methods in Medical Family Therapy*,
Focused Issues in Family Therapy, https://doi.org/10.1007/978-3-319-68834-3_12

induce mental disorders, and disordered use can cause problems within the work, family, or other social systems (APA, 2013). The etiology of problematic substance use, sometimes referred to as addiction, has neurobiological, genetic, psychological, and social bases (Shaffer et al., 2004). Therefore, treatment for alcohol and drug problems is strengthened through the integration of multiple professionals (e.g., primary care providers [PCPs], social workers, probation officers, sponsors) while incorporating a biopsychosocial-spiritual (BPSS) (Engel, 1977, 1980; Griffiths, 2005; Wright, Watson, & Bell, 1996) and family systems approach (Gruber & Taylor, 2006). This integration is especially crucial, and even an ethical requirement, when the substance use has resulted in physical dependency or other physiological effects.

Throughout this chapter, we will discuss the collaboration of professionals in a variety of different settings. Some settings will have the IBHC team located on site; however, because of the nature of this particular disorder, in most cases at least some members of the team (e.g., probation officers) will not be located on site. It is our belief that the MedFT can, and should, successfully integrate a team approach for treatment of substance use problems in a variety of settings. To display how the practice of MedFT in alcohol and drug treatment is relevant to even patients not presenting for substance use issues, and outside of an integrated setting, we will share an example case study of Dustin and Elaina. They came to a university training clinic for couple services. In this training clinic, therapy rooms have one-way mirrors to allow for live supervision of cases. In this setting, it is standard practice for students to take mid-session breaks to receive feedback and direction from the supervisor to integrate during the remainder of the session. I (KS) was the supervisor on the case and Tom was the MedFT.

Clinical Vignette

[Note: This vignette is a compilation of cases that represent alcohol and drug treatment. All patients' names and/or identifying information have been changed to maintain confidentiality.]

Prior to the first session, my supervisee Tom came to me (KS) to consult about what areas he should be assessing in a new intake. He had been assigned a couple case, Elaina and Dustin, who called to request an appointment due to communication issues. In the intake, Elaina reported past addiction to drugs and present alcohol addiction that has affected the family, but that primarily the couple was interested in services for their relationship. I discussed areas of assessment with Tom, including identifying symptoms for a substance use disorder and assessing how much and how often the present alcohol use was and past drug use.

During the assessment, Dustin and Elaina reported that Dustin was drinking daily and having symptoms of withdrawal when he stopped use for several hours. He even required a drink when he got up in the morning. Dustin reported

that he was vomiting up blood some mornings when he started to experience the withdrawal symptoms. Upon further assessment, Tom was able to identify that the couple became physically violent with one another during arguments at times and that it only happened at times when Dustin was drinking. The couple reported that Dustin would be going in for an appointment with his PCP during the next week. With concerns around the withdrawal symptoms Dustin was experiencing, the therapist and I were glad to hear an appointment had already been scheduled (otherwise we would have recommended it).

We requested a release to communicate with Dustin's PCP and then contacted her to collaborate and share assessment information. We described to the PCP the physiological symptoms that Dustin reported, alongside our concerns that the patient was physically dependent on alcohol and had a substance-related medical issue. The PCP gathered the clinic's information and after meeting with the patient ordered additional tests that led to the diagnosis of a stomach ulcer. With the results of these tests, the PCP advised that withdrawal from alcohol was not recommended without medical supervision and that Dustin should check in to an inpatient detoxification facility.

The couple did not make it back to therapy for 3 weeks following their intake because of work schedule conflicts. When they returned, Tom processed with Elaina and Dustin the findings from the appointment with the PCP. The couple identified that although inpatient detox was recommended, they did not see it as feasible at the time. Elaina reported that she just wanted Dustin to stop using alcohol, and they both discussed how he was able to quit using methamphetamine "cold turkey" 1 year ago.

Tom took a mid-session break and came back behind the mirror for his supervision consultation. I discussed with Tom the patterns reported by the patients, emphasizing that the withdrawal experiences Dustin was experiencing. I shared concerns about the potentially life-threatening dangers of withdrawing from alcohol without medical attention. I told Tom to reiterate to the couple the PCP's indication that it was not advised to go through alcohol withdrawal without being under medical supervision.

I instructed Tom to provide the couple with referrals for detoxification centers in the city. The couple resisted, indicating that if Dustin missed any work he would lose his job. With Dustin being the primary breadwinner in the family, they could not survive without his income. With the understanding of their challenges, we then identified the need to incorporate a case worker into our treatment team.

This case was multifaceted in both the number of challenges that the couple was facing and in terms of the professionals who should be involved. Given the severity of symptoms that Dustin was experiencing, it was not just a matter of whether we should collaborate with additional care providers—it was, instead, the only ethical means by which to continue treatment. The PCP was essential in establishing the

patient's medical diagnosis. If left untreated, Dustin's level of alcohol use was potentially life-threatening. However, he also faced employment and financial challenges by seeking intensive care. Too invasive of a treatment recommendation without consideration of attending to his other challenges could have also been damaging, leading the patient to potentially drop out from treatment. A case worker was thereby necessary to coordinate treatment systems as the couple dealt with concomitant challenges related to Dustin's job and the couple's economic survival.

Amidst these issues, Dustin's partner began to pressure him to quit his alcohol use "cold turkey"—but alcohol is one of the few substances from which a patient can die during rapid withdrawal. The couple was not presenting for treatment for substance use issues and did not identify it as one of their primary concerns within their intake paperwork. Had the MedFT not directed assessment processes to inquire about substance use, Dustin's potentially life-threatening alcohol use might have gone unreported and unaddressed. Further, by attending to the relational and systemic factors affecting the case, the MedFT was able to identify and attend to challenges preventing the patient from pursuing treatment further. A MedFT in this type of tertiary care setting must be purposeful in integrating other systems of care into alcohol and drug treatment. Referral to additional professionals without such collaboration may not be adequate to properly manage substance use problems. In this chapter, we outline basic knowledge that MedFTs in these types of case settings need to have, as well as identify the interdisciplinary teams that could or should be involved in care across a range of treatment levels.

What Is Alcohol and Drug Treatment?

MedFTs can be involved in alcohol and drug treatment in a variety of settings, ranging from early intervention treatment to general outpatient treatment, intensive outpatient treatment, and residential or inpatient care. Treatment recommendations largely depend on the severity of the substance use that is occurring and its resulting consequences (see the "Fundamentals of Alcohol and Drug Treatment" section, below). Treatment approaches give focus to physiological, behavioral, and social causes or consequences of the substance use, as well as co-occurring mental health disorders. In residential and inpatient treatment centers, the MedFT will have an IBHC team that can include psychiatrists, medical directors, nurses, and other behavioral health providers on site. The MedFT working in outpatient treatment, on the other hand, will likely have an IBHC team of psychiatrists, PCPs, nutritionists, and—in some cases—probation officers or sponsors (some of whom may be located on site). The outpatient MedFT will likely have to be more purposeful with integrating different professionals into care processes.

The ability of a patient to access the most appropriate care can depend on financial resources, too, as not all medical insurance providers include coverage for alcohol and drug treatment. It is not uncommon for substance use problems to be discovered within a treatment setting that is not focused on alcohol and drug treat-

ment per se. Behavioral health providers could be the first professionals in contact with the patient; comprehensive screening and assessment is thereby crucial to detect unrecognized problems with substances. Such screening and assessment can identify two types of psychopathology: internalizing types and externalizing types. Alcohol and drug use most commonly fit into externalizing sequences and often co-occur with other diagnoses like personality disorders, mood disorders, and anxiety disorders (Hasin & Kilcoyne, 2012).

The problematic use of alcohol or drugs can lead to a diagnosis of a substance use disorder (APA, 2013). However, not all alcohol and drug use coincides with a substance use disorder diagnosis. Alcohol and drug use moves into "disordered" use when psychological, social, and/or physiological problems arise that can be linked back to it. Substance use can induce other mental illnesses per se and can be related to disruptions in one's social system (APA, 2013). As noted above, repeated consumption of substances can affect the body's homeostasis. Compensatory adaptations occur to support continued functioning and survival (National Association for Addiction Professionals [NAADAC], 2009). These changes are what cause a physical dependency to substances. The body is affected by both these changes and the direct effects of the substance(s) itself. For example, alcohol can affect nutrition absorption, negatively impact liver functioning, and can cause bleeding in the digestive system. It can even cause nervous system impairment (Mirijello et al., 2015; Myrick & Anton, 1998).

When the effects of drug and alcohol use reach into biological, psychological, or social systems, the etiology of said use similarly has biopsychosocial (Zucker & Gomberg, 1986) and family systems roots (Gruber & Taylor, 2006). Those with other severe mental illnesses tend to be diagnosed with substance use disorders at a higher rate than the general population (RachBeisel, Scott, & Dixon, 1999). Family functioning is related to different substance use behaviors, including age of initiation of use, substance(s) of choice, and/or problematic use patterns (Gruber & Taylor, 2006). The family can buffer and protect against problematic use, with parent support and control factors being especially important (Barnes & Farrell, 1992; Gruber & Taylor, 2006). The family can also introduce risk for use, particularly when a parent is using alcohol (Kerr, Capaldi, Pears, & Owen, 2012). Genetic heritability of substance use has been documented, too. For alcohol, this may create differences in how people metabolize enzymes in alcohol and/or how they cope with stressful life experiences (Enoch, 2013). Addiction may also have underlying neurobiological basis; prefrontal cortex activity has been identified in imaging studies as playing a key role due to its regulation of rewards and involvement with higher-order thinking (e.g., self-control) (Goldstein & Volkow, 2011). The multifaceted impacts and origins of alcohol and drug use necessitate the involvement of multiple systems of care in recovery, with the MedFT playing an important role in these systems.

Whereas substance use disorders have biopsychosocial-spiritual and family systems etiology (Engel, 1977, 1980; Wright, Watson, & Bell, 1996), the underlying cause for the use is questioned. Models of addiction view the problems with substance use as a disease or as an adaptive process of coping (Alexander, 1987).

Members of the treatment team may differ in their perceptions of this disorder and may need to negotiate in finding common goals. For example, psychiatrists and psychologists may adhere to the disease model of addiction, specifically subscribing to a neurobiological basis to it (Noël, Brevers, & Bechara, 2013), whereas MedFTs may be more likely to additionally examine the relational influences on substance-seeking behaviors (Selbekk, Sagvaag, & Fauske, 2015). Moreover, different approaches to the treatment of alcohol and drug problems are debated in the field. Some recommend an abstinence-only approach as preferable; others recommend a harm-reduction approach (Marlatt & Witkiewitz, 2002).

Abstinence-only approaches (e.g., the 12-Step model) stress the importance of complete abstinence of the substances, indicating that any use could trigger cravings and a relapse into problematic use. The Center for Substance Abuse Treatment (1999) and Betty Ford Institute Consensus Panel (2007), for example, define this as essential for recovery. Harm-reduction approaches, on the other hand, focus primarily on reducing the negative impacts from substance use (i.e., not on eliminating the use altogether). This approach acknowledges differences among users and takes into account the stage of change a patient is presently in (Marlatt & Witkiewitz, 2002). By focusing on harm reduction, a broader range of patients may be engaged in treatment as it matches motivation level. This approach can also feel less stigmatizing to patients and thereby be more attractive treatment option for some. Ultimately, while a harm-reduction approach may be possible for those with a less severe alcohol or drug problem, abstinence may be a necessary goal to maintain recovery for those with more severe substance use disorders. There are some indications, too, that abstinence is a more stable recovery option than those seeking moderate drinking as a goal (Ilgen, Wilbourne, Moos, & Moos, 2008). In our view, the potential legal consequences related to continued drug use negate harm reduction as being a practical and ethical approach. The IBHC team should therefore work together to identify primary goal(s) for recovery.

Treatment Teams in Alcohol and Drug Treatment

MedFTs working with integrated treatment teams are necessary, as the safe and successful recovery of an alcohol or drug use patient may depend on the collaboration between multiple providers along with the patient and family (Marlowe, 2003; Myrick & Anton, 1998; Vanderplasschen, Rapp, Wolf, & Broekaert, 2004). The process of moving from active substance use to reduced use or abstinence is physically, emotionally, socially, and financially challenging. Reducing or eliminating substances from the body can have a variety of negative physical effects, especially when there has been physical dependency on the substance and the patient is experiencing withdrawal symptoms (Myrick & Anton, 1998). With reduced use or abstinence, a variety of other challenges present to the patient. Maintaining recovery often depends on integrating treatment for co-occurring behavioral health disorders (Drake, Mueser, Brunette, & McHugo, 2004) and can necessitate changes to other

areas of one's life (e.g., access to employment or housing; Salyers & Tsemberis, 2007). If the patient is involved in the criminal justice system, recovery may also involve ongoing interactions with probation officers or other members of the court system (Marlowe, 2003). While each of these processes is being addressed and managed with the patient, members of the family system are also experiencing changes. Family members can be a supportive resource for the patient, and their involvement in treatment can provide useful information about triggers for relapse or indications of the patient's strength. Conversely, families may resist a change from the homeostasis or a change that involves something they do not quite understand (e.g., challenges associated with withdrawal from a substance). This resistance can undermine the work of the IBHC teams if it is not addressed purposively and systemically.

The tertiary care teams required for alcohol and drug treatment potentially involve different professionals not often encountered in other MedFT approaches. The nature of the presenting problem and the related issues necessitates a broader collaboration of disciplines. Professionals within the judicial system, if the patient is required to seek services because of legal charges, often require regular status updates. The integration of criminal justice supervision into treatment (Marlowe, 2003), along with case management (Cosden, Ellens, Schnell, Yamini-Diour, & Wolfe, 2003), shows support for improved recovery outcomes. Combinations of other services have also been examined; collaboration across multiple providers and resources (e.g., case management) consistently yields strong psychological, social, and treatment effects (Vanderplasschen et al., 2004). Not only are these types of collaborative or IBHC teams beneficial to the patient, but they also positively impact the team members involved enriching their professional and personal experience in the work (Akhavain, Amaral, Murphy, & Cardon Uehlinger, 1999). The following include professionals in tertiary care settings that could, and often should, be involved in integrated behavioral healthcare with MedFTs:

Psychiatrists. Substance use disorders can either induce another behavioral health disorder, including depressive disorders or neurocognitive disorders (APA, 2013), or co-occur with mental illness (RachBeisel, Scott, & Dixon, 1999). Psychiatrists can assess for co-occurring mental disorders and provide supportive care in treatment of those disorders, prescribing medications where necessary. Psychiatrists can report new prescriptions directly to probation officers, which can then be tracked for appropriate use. MedFTs can consult with the psychiatrist and report any potential substances actively being used that would be of relevance in prescribing or any substances that could prove to be a trigger for the patient's relapse into substance use. For example, a patient with a history of methamphetamine use may be triggered by being prescribed popular attention deficit hyperactivity disorder (ADHD) medications (e.g., Ritalin)—which are formally classified as amphetamines. Psychiatrists can be involved in the treatment planning process, too, identifying means of helping patients maintain abstinence from their substance(s) of choice. Pharmacotherapy can be used to assist in detoxification and maintenance therapy or to prevent overdoses (NAADAC, 2009). There are sensitizers that cause uncomfortable symptoms if taken with the substance of choice, antagonists that

block the desired effects of the substance or that can prevent overdose, and other therapies that can decrease cravings for the substance of choice.

Primary care physicians (PCPs). Before patients make changes in their alcohol or drug use, it is important that they seek evaluation by their PCP to assess safety. The PCP can assess for a variety of health issues resulting from the substance use and anticipate any challenges that may be faced if the patient withdraws from the substance. For example, physical dependency on alcohol may be related to other conditions, including irregular heartbeat (i.e., arrhythmia), pancreatic disease (i.e., alcohol pancreatitis), or bleeding within the digestive system, to name a few (Myrick & Anton, 1998). The PCP can also assess for other health concerns that may have arisen because of the method for drug use. For example, the use of intravenous drugs is often associated with the reuse of dirty needles and a higher rate of human immunodeficiency virus (HIV) (Mathers et al., 2008). MedFTs' and PCPs' collaboration can help identify the necessary health tests to be conducted. Patients sometimes have difficulty in revealing their true level of use to the PCP and may not understand the importance of comprehensive reporting.

Nutritionists. The use of alcohol and drugs has physiological consequences, but also generally accompanies a lifestyle that neglects nutritional health (Islam, Hossain, Ahmed, & Ahsan, 2002). Those who use at clinically significant levels have used drugs over a longer period and are more likely to display nutritional deficiencies (Islam, Hossain, Ahmed, & Ahsan, 2002). Some substances serve as a replacement for food (e.g., alcohol), some undermine appetite (e.g., cocaine or methamphetamine), and others promote cravings for empty-energy foods leading to nutritional deficiencies (e.g., marijuana) (Islam et al., 2002; Lieber, 2003). Alcohol, for example, can interfere with the absorption of other nutrients (Lieber, 2003) and—during withdrawal—patients who have been using it may require nutrient supplementation to prevent life-threatening complications (Myrick & Anton, 1998). A nutritionist can assess for nutritional deficiencies in the patient and provide a dietary plan. They can work with the patient to understand the role of diet in healthy living and in their recovery. Nutritionists may also be employed as a supportive care along with outpatient alcohol withdrawal (Myrick & Anton, 1998).

Case managers. Patients who are struggling with substance use often present with a variety of other significant life problems (Vanderplasschen et al., 2004). This can include challenges with access to food, employment, housing, or transportation. Case managers assess and identify the services needed and coordinate the supportive care. This may include finding access to community resources, providing crisis intervention, or teaching specific skills. In alcohol and drug treatment, case managers can assist patients who do not have access to transportation to treatment (e.g., because an alcohol or drug charge resulted in revocation of driving privileges). Patients may have suffered a loss of employment following missed work because of treatment stays or incarceration. Patients may also be struggling financially, thereby benefitting from skills training for career advancement. Case managers can assist with each of these pieces and can collaborate with both probation officers and behavioral health providers in identifying necessary resources and tracking progress in accessing them.

Probation officers. Patients involved with the criminal justice system who are serving probation, or parole (if the patient has been incarcerated), will have supervised conditions for their release. If substances were involved in the charges, judges may require an alcohol and drug evaluation with stipulations that any clinical recommendations are followed. Probation officers generally (at a minimum) will require a monthly report from the treating psychotherapist that attests to patient participation in sessions and a brief summary about treatment progress or concerns. Probation officers can provide additional support to the therapeutic process, including drug testing in situations where patient relapse is a concern, require the patient come for a check-in, or conduct unannounced house visits. Probation officers may also monitor patient prescriptions, requiring new scripts be reported, and the medications brought in to be monitored (i.e., checked to ensure that medications are being taken as prescribed). They hold patients accountable for other actions, as well, including attending community support groups (e.g., Alcoholics Anonymous) or applying for jobs. In some situations, probation officers may even collaborate with the behavioral health provider regarding sentencing recommendations, and whether they should include specific treatment stipulations.

Fundamentals of Care in Alcohol and Drug Treatment

MedFTs who seek to have alcohol and drug use as a clinical area of interest can seek certifications or, potentially, state licensure in this specialty. The Association for Addiction Professionals (NAADAC) has a credential to acknowledge qualified addiction professionals. Some states have adopted a licensure to recognize these professionals, called licensed addiction counselor (LAC) or licensed chemical dependency counselor (LCDC). In some cases, being qualified for the Marriage and Family Therapy license (LMFT), or another master's level license (e.g., LICSW), also deems a behavioral health provider eligible to sit for the examination and licensure.

Terms in Alcohol and Drug Treatment Programs

Working as a MedFT with alcohol and drug use problems in tertiary care settings, specialized content knowledge is necessary to properly assess, treat, and collaborate with the interdisciplinary team.

Substance use disorder. The first area that the MedFT should be familiar with is the diagnostic criteria for a substance use disorder (SUD). This is fully described in the Diagnostic and Statistical Manual of Mental Disorders-5 (APA, 2013, pp. 481–589). A substance use disorder involves a pattern of behaviors surrounding

the use of the substance that is pathological or results in clinically significant impairment. The diagnostic criteria for all substance use disorders include the following groupings: impaired control, social impairment, risky use, and pharmacological criteria.

With impaired control, the substance may be taken for a longer duration of time than was intended or more may be consumed than was originally intended (APA, 2013). There is an inability to successfully cut down on one's use, or an excessive amount of time may be spent to obtain the substance. Social impairment may occur as a result of the substance use. The user may fail to fulfill their obligations at work, school, or home or may have problems with those in their social network because of the substance. The user may also give up activities they once enjoyed because of the substance use. Risky use involves a pattern of substance use in circumstances in which it is dangerous or physically hazardous or despite knowledge that their physical or psychological health is affected by the substance use. Finally, pharmacological criteria involve both symptoms of tolerance (i.e., needing more of the substance in order to achieve the same effect or a reduction in the effect of the same dosage) and withdrawal symptoms (i.e., physiological effects of the marked reduction of the use of the substance). The presence of two or three symptoms is all that is required for a diagnosis of a substance use disorder specified with mild severity. The level of severity is diagnosed based on number of diagnostic criteria the patient meets, with levels of severity including mild (2–3 criteria), moderate (4–5 criteria), and severe (6 or more criteria).

Substance-induced mental disorders. One important factor that the MedFT should know about the repetitive use of a substance is that substance-induced mental disorders can present as a result (APA, 2013). Without taking into account present substance use, misdiagnosis can happen. This can include depressive disorders, anxiety disorders, and even schizophrenia spectrum and other psychotic disorders. Any co-occurring symptoms of another disorder that the patient presents with should be assessed for when they presented, whether before or after the onset of the substance use, and whether the symptoms sustained for more than a month of time following the withdrawal of a the substance. A co-occurring disorder diagnosis over a substance-induced mental disorder diagnosis should not be given unless the symptoms have been observed a month after cessation and withdrawal from the substance. Substance intoxication, dependence, and withdrawal can trigger other mental disorder symptomologies.

Polysubstance abuse. In assessing for what substances are being used by a patient, the MedFT should also assess for what substances are being used simultaneously. Polysubstance use occurs when more than one substance is consumed simultaneously or in succession of one another (NAADAC, 2009). Some substances, when taken together, heighten the intoxication experience (e.g., alcohol when combined with cocaine, benzodiazepines, marijuana, or heroin). Otherwise, some substances are used to manage symptoms of withdrawal from another substance (e.g., using marijuana to manage withdrawal from opioids).

Central nervous system depressants. Central nervous system (CNS) depressants are those psychoactive substances that work by depressing, or slowing, physiological functions including lung functioning, motor coordination, mental awareness, or heart rate (NAADAC, 2009). This includes alcohol, barbiturates, and benzodiazepines. When used or prescribed for medical purposes, CNS depressants are commonly taken to treat insomnia or anxiety. There is a potentiation effect for CNS depressants that are used together, meaning that the effect of each substance is magnified by the consumption of the other. Consider potentiation being depicted by the equation 2 + 2 = 8. This effect can be life threatening, as it can result in a person's heart stopping. Alcohol when combined with an antianxiety medication like Xanax or Klonopin, for example, can produce these potentiation effects.

Other inventive nonconventional ways of consuming alcohol have emerged, and often attempted by underage minors, including soaking tampons in alcohol and inserting them, the use of alcohol through insertion of the rectum (i.e., "butt chugging"), soaking candy or fruit in alcohol, or even smoking alcohol in vaporized and inhaled forms. As outlined above, withdrawal from alcohol is different from most substances insofar as its detoxification process can be potentially life endangering (Myrick & Anton, 1998). Patients with symptoms of physical dependency to alcohol should be assessed medically before changing their pattern of use. These substances can be taken orally, intravenously, or intramuscularly (NAADAC, 2009).

Central nervous system stimulants. CNS stimulants—including nicotine, caffeine, amphetamine, and cocaine—work by exciting the CNS and arousing physiological functions even creating a sense of euphoria for the user (NAADAC, 2009). Medically, these can be used to treat narcolepsy, respiratory problems, or attention deficit hyperactivity disorder (ADHD). The withdrawal from CNS stimulants can cause fatigue, vivid or unpleasant dreams, insomnia or hypersomnia, increased appetite, dysphoric mood, or psychomotor retardation or agitation. The simultaneous use of the CNS stimulant cocaine with alcohol forms a metabolite called cocaethylene, which is a more lethal substance than cocaine alone (Hearn, Rose, Wagner, Ciarleglio, & Mash, 1991; McCance, Price, Kosten, & Jatlow, 1995). CNS stimulants can be taken orally, nasally, or intravenously.

Narcotics. The term "narcotics" is often misused to refer to any illegal substance. Formally, narcotics include any substance that was derived from the poppy (opium) plant (NAADAC, 2009). Opiates are extracted from the opium poppy or are a modified extract (e.g., morphine or codeine), whereas opioids are synthetic versions (e.g., hydrocodone, methadone, heroin). Narcotics are used medically to reduce or eliminate physical pain. They also can suppress anxiety, depression, and other physiological functions like coughing or diarrhea. The suppression of physiological functions that narcotics provide makes this psychoactive substance especially dangerous when combined with CNS depressants, such as alcohol. Respiratory functions could become so suppressed a person stops breathing when these substances are combined. Any patient taking pain medications should be made aware of the potential interactions of narcotics and CNS depressants. These substances can be taken orally, nasally, intravenously, or subcutaneously.

Hallucinogens. Hallucinogens act to produce an altered state of body and mind, where perceptions of thoughts and feelings are distorted (NAADAC, 2009). They include lysergic acid diethylamide (LSD), phencyclidine (PCP), and methylenedioxymethamphetamine (MDMA). Hallucinogens have no known withdrawal symptoms or risk for physical dependence, but can be psychologically addictive. Risk in using hallucinogens primarily comes from the user's behavior while intoxicated, as he or she can be erratic and/or behave in ways that are based on a delusion or hallucination (i.e., putting one's self in a dangerous situation). These substances are generally ingested orally, but they can be injected as well.

Cannabis. Psychoactive substances derived from the *Cannabis sativa* plant are part of the cannabis classification (NAADAC, 2009). Cannabis, commonly referred to as marijuana, is the most used illicit psychoactive substance in the United States (SAMHSA, 2009). By the end of 2016, marijuana was legal for recreational use in six places (Alaska, California, Colorado, Oregon, Washington DC, and Washington State) and was legal for medical use in some form in 44 states (Marijuana and the Law, 2016). When taken, marijuana creates feelings of euphoria, relaxation, and altered perceptions of space and time; it can also impair short-term memory, judgment, and reaction time (NAADAC, 2009). In some cases, hallucinations can result. Although not commonly accepted by the general public, marijuana use does have a potential for physical and psychological dependence (APA, 2013). Cannabis can affect testosterone levels in males (leading to increased secondary sex characteristics) and disrupt the reproductive cycle in females (NAADAC, 2009). Cannabis is primarily taken orally, either through smoking or as an edible when mixed with foods (NAADAC, 2009).

Solvents and inhalants. Solvents and inhalants are often used to produce psychoactive effects as an inexpensive and easily accessible alternative to other substances (NAADAC, 2009). Common household items can be used to create an instant feeling of being high, which results in euphoria, relaxation, excitement, hallucinations, and impaired thinking. Popular items used to create these effects include anesthetics (e.g., whipped cream propellant or chloroform), volatile solvents and sprays (e.g., nail polish remover, lighter fluid, hair sprays, or paint remover), and volatile nitrates (e.g., room deodorizers). These substances are generally breathed in orally, whether through "huffing," "sniffing," or "bagging," and can lead to permanent brain damage because of their ability to easily permeate the blood-brain barrier. No withdrawal effects have been discovered. Solvents and inhalants have not been found to cause physical dependence, but can result in psychological dependence.

Anabolic steroids. Anabolic steroids are synthetic and naturally occurring psychoactive substances generally used to build muscle by imitating the effects of androgens and testosterone (NAADAC, 2009). When taken, they result in significant gains in muscles and strength and can result increased secondary sex characteristics for females. Increased aggression, also known as "roid rage," can occur from use, alongside frightening dreams or hallucinations. When detoxing from anabolic steroids, behavioral health may be affected. Patients may experience severe depressive symptoms, even suicidal ideation. Anabolic steroids can be taken orally, topically in a cream or gel form, or injected.

Levels of Care

A substance use disorder is a chronic and progressive disease (American Society of Addiction Medicine [ASAM], 2011) and, depending on the severity, requires different intensities of treatment in different treatment settings. A MedFT can be involved in the integrated treatment of alcohol and drug use in each of these treatment settings. In relation to substance use or addiction recovery, levels of care refer to the appropriate treatment setting to best meet the needs of the patient. The most widely used guidelines in the treatment of alcohol and drug use is the American Society of Addiction Medicine Patient Placement Criteria (ASAM PPC; Mee-Lee, 2013). The ASAM PPC uses six dimensions to inquire about patient's strengths, systems of support, resources, risks, and deficits, to place the patient in a treatment setting ranging from early intervention (Level 0.5) to medically managed inpatient (Level 4)—with the options including inpatient or outpatient care. The six dimensions of the ASAM Criteria are (a) acute intoxication or risk of withdrawal; (b) biomedical conditions and complications; (c) emotional, behavioral, or cognitive conditions and complications; (d) readiness to change; (e) relapse, continued use, or continued problem potential; and (f) recovery/living environment.

It is critical that the MedFT or behavioral health providers working with alcohol and drug use understand when a patient is appropriate for outpatient services (i.e., withdrawal risk is minimal, medically stable, no safety concerns, supportive recovery environment) and when inpatient would be necessary (i.e., risk of withdrawal, immediate danger to self/others, medical concerns, lives in unsupportive recovery environment). The MedFT, or other behavioral health provider, can be the professional recommending a level of care for the patient. The level of care a patient is placed in will also influence the level of involvement of different professionals in the treatment process and may have to be coordinated by multiple professionals. The MedFT could be the provider of either individual therapy, group therapy, or couple and family therapy at any level of treatment.

Level 0.5 (early intervention) would be recommended or provided by the MedFT or other behavioral health providers when a patient displays a potential risk for developing a substance use disorder, but does not meet the diagnostic criteria for a SUD (ASAM, 2011; Mee-Lee, 2013). This treatment could be recommended as a standalone treatment or in addition to other behavioral health treatments focused on another behavioral health issue. This limited outpatient treatment, which can be as brief as a single 8-hour day class, focuses on psychoeducation of SUDs and related risk factors to allow the patient to make more informed choices about their substance use. Integration between the MedFT and other behavioral health providers would be warranted to ensure accurate risk was assessed. The MedFT could also integrate a PCP into treatment to assess physical health and a probation officer if applicable.

Level 1 outpatient treatment would be recommended when the patient meets the diagnostic criteria for a mild to moderate SUD (Mee-Lee, 2013). Substance use by the patient interferes with functioning in one or more areas of life (e.g., school, work, or family relationships). Typically patients are not experiencing withdrawal; do not have any biomedical conditions or complications as a result of the substance

use; do not have any emotional, behavioral, or cognitive conditions or complications or are receiving mental health monitoring; display readiness to change or need motivation to strengthen readiness; are able to achieve abstinence or controlled use; and are able to cope with the recovery environment. Treatment is less than 9 hours per week for adults, and less than 6 hours per week for adolescents, and can be inclusive of individual therapy and group therapy. Treatment can be as few as a single hour of individual therapy per week, but the number of hours should be proportionate to symptomology. This treatment can also be provided as a step-down from a more intensive level of treatment. The IBHC team will include the MedFT, other behavioral health providers, the PCP, and possibly a psychiatrist and probation officer.

Level 2 intensive outpatient treatment (IOP) would be recommended when the patient meets the diagnostic criteria for a SUD as well as an emotional, behavioral, or cognitive condition that has the potential to interfere with treatment and should be monitored (Mee-Lee, 2013). Patients are at a minimal risk for severe withdrawal from the substance, either they have no biomedical conditions or complications or they are manageable at the outpatient level, display ambivalence or lack of engagement in treatment, have an increased risk of continued substance use or relapse without regular engagement and support in treatment, and are able to cope with the recovery environment. Treatment is at least 9 hours a week for adults and at least 6 hours a week for adolescents. Treatment will likely be inclusive of both group and individual therapy. This treatment can be provided as a step-down or step-up from a more or less intensive treatment. The integrated treatment team will likely be the same as above.

Level 3 medically monitored inpatient treatment would be recommended when a patient meets the diagnostic criteria for a moderate to severe SUD and when the elimination of the substance use requires a controlled environment and monitoring (Mee-Lee, 2013). The substance use results in significant interference with functioning in life. Patients are at minimal risk of withdrawal, or if it is present, it is not life threatening; may have biomedical conditions that require monitoring; may have emotional, behavioral, or cognitive deficits; may be in opposition to treatment; may need skill development to prevent relapse and continued use; and cannot cope with their recovery environment. Treatment will include at least 5 hours of clinical service, including therapy, a week. The length of treatment is determined on an individual basis and depending on the severity of the SUD. The IBHC team can include the MedFT or other behavioral health providers, psychiatrists, and nurses, with staff available and awake 24 hours a day, 7 days a week.

Level 4 medically managed inpatient treatment would be recommended when a patient meets the diagnostic criteria for a severe SUD, when the elimination of the substance use requires a controlled environment and monitoring, and when the patient has instability in symptoms in dimension 1, 2, or 3 of the ASAM criteria (Mee-Lee, 2013). Patients may be at risk of severe withdrawal; may have biomedical conditions that require monitoring; may have severe emotional, behavioral, or cognitive deficits that require monitoring (e.g., suicidal ideation); may be in opposition to treatment; may need skill development to prevent relapse and continued use; and cannot cope with their recovery environment. Therapy is available for patients

in this setting. The IBHC team can include the MedFT or other behavioral health providers, psychiatrists, PCPs, and nurses, with staff available and awake 24 hours a day, 7 days a week.

Sensitivity to Diversity

MedFTs should be cognizant of and sensitive to issues of diversity that affect alcohol and drug treatment. Not only are there differences in the physiological influence of substances across different groups, but there are systemic factors affecting access to care across different communities. The use of alcohol and other substances is generally less among females as compared to males (SAMHSA, 2009; Nolen-Hoeksema & Hilt, 2006). Gender is an important factor to consider in treatment. Alcohol affects males and females differently. For example, females are more strongly affected by the same level of alcohol use as males, due to muscle mass, body fat, and activity of the enzyme gastric alcohol dehydrogenase (Nolen-Hoeksema & Hilt, 2006). Females generally experience more negative physiological and social consequences from drinking, which may deter heavier use as compared to males. Although females may use substances less, they are more likely to face barriers to seeking treatment for their alcohol or substance use, especially mothers (Finkelstein, 1994). Physiological effects of alcohol can also be more severe for those who have a specific genetic variant affecting metabolism of the substance, which disproportionately affects those of Asian descent (Li, Zhao, & Gelernter, 2011). Access to healthcare is less for racial and ethnic minorities; specifically African Americans and Hispanics have less access than White non-Hispanic with similar need for treatment (Wells, Klap, Koike, & Sherbourne, 2001). Cultural variables related to interpersonal relations (e.g., individualism-collectivism dynamics, respeto, or familism) and personal traits (e.g., acculturation, ethnic pride, or spirituality) are important to consider in treatment as they can potentially be protective or mediating factors against substance use (see Castro & Alarcón, 2002).

Alcohol and Drug Treatment Across the MedFT Healthcare Continuum

A MedFT's efforts in relation to—or within—an IBHC team working to treat patients with a substance use disorder will vary in accord his or her competency and care context. The MedFT Healthcare Continuum (Hodgson, Lamson, Mendenhall, & Tyndall, 2014) describes knowledge and skills across five different levels of practice application and complexity. Tables 12.1 and 12.2 highlight specific characterizations of MedFTs' work and involvement in alcohol/drug treatment across this continuum.

The first two levels of the MedFT Healthcare Continuum include a working knowledge of and ability to apply the BPSS model and an understanding of how the

Table 12.1 MedFTs in Alcohol and Drug Treatment: Basic Knowledge and Skills

MedFT Healthcare Continuum Level	Level 1	Level 2	Level 3
Knowledge	Basic understanding of clinical and lay person definitions of substance use disorder and its impact. Understands BPSS approaches to substance use care. Familiar with addiction recovery as a mental health field; limited understanding of evidence-based practice, treatment facilities, or team structure.	Understands the systemic impact of substance use disorders. Familiar with the role couple and family relationships play on sustained recovery. Basic knowledge about different substances of abuse; can identify some health complications associated to substances of abuse (e.g., cirrhosis, psychosis, cardiovascular disease). Can differentiate problematic substance use from clinically significant substance use; familiar with drug types.	Working knowledge of specific team members (e.g., case worker, psychiatrist, nutritionist) and terminology (e.g., detoxification, withdrawal, tolerance). Basic knowledge of the physiological impact of different substances of abuse. Understands theories of addiction, including the disease model of addiction.
Skills	Can explain the BPSS and how it applies to addiction recovery. Practices independent of treatment team. Adequate knowledge of referral sources when patient needs higher level of care.	Can conceptualize and treat substance use issues systemically; understands the circular role of families and substance use; routinely treats cases concerning substance use. Collaborates with professionals who specialize in addiction recovery and refers out appropriately; treatment of substance use issues is primarily separate from integrated behavioral healthcare.	Proficient in conceptualizing cases from multiple theories of addiction and the role different substances of abuse play in developing treatment plan. Practices primarily in a tertiary care setting, consistently integrating treatment team members in the treatment planning process; actively participates in treatment team meetings. Can implement a systemic assessment of a patient and family with competencies in assessing BPSS for addiction recovery and engage other professionals as indicated.

Table 12.2 MedFTs in Alcohol and Drug Treatment: Advanced Knowledge and Skills

MedFT Healthcare Continuum Level	Level 4	Level 5
Knowledge	Proficient understanding of drugs of abuse, their physical/mental/emotional effects, physiological responses (e.g., tolerance, withdrawal, tissue dependence), and drug-specific treatment. Expert knowledge of addiction recovery field including terminology, assessment/diagnosis, measures, and treatment options.	Understands ASAM levels of care and the six dimensions of assessment (e.g., strengths, resources, risks) and can make appropriate treatment recommendations. Proficient knowledge of evidence-based treatments regarding addiction recovery and how to integrate family in treatment; experience in providing psychoeducation to patients and their systems of support about multiple areas of addiction recovery. Able to fulfill the role of clinician, researcher, policymaker, and administrator concerning addiction recovery. Skilled in providing community outreach concerning education on addiction recovery, including prevention, relapse, recovery skills, and family support.
Skills	Routinely collaborates with and conducts joint treatment sessions with other addiction recovery treatment team member providers (e.g., case worker, probation officer, nutritionist). Able to deliver seminars and workshops about the BPSS complexities of a variety of substance use disorders (e.g., alcohol, methamphetamine, prescription opioids) to a myriad of professionals (e.g., mental health, judicial system). Proficient in the application of evidence-based practice, and attends to systemic issues related to substance use disorders (e.g., intimate partner violence).	Ability to apply knowledge of substance use treatment related to complex issues such as drug interactions, pharmacotherapy, and role of detoxification. Engages in cutting-edge research (e.g., neuroimaging techniques, biomarkers) using novel approaches to improve the understanding of addiction from a systemic lens. Provides community outreach, such as development of prevention programs, and work may extend to policymaking. Established a standard of care that includes consistent interaction and communication with treatment team.

BPSS model relates to both relational and healthcare models. MedFTs working in alcohol and drug treatment at *Levels 1* and *2* should have basic knowledge concerning substance use disorder and drug and alcohol recovery, including both a clinical and lay person definition of SUD, how to assess for a substance use disorder, the difference between problematic and clinically significant substance use, and the role of family systems in addiction. MedFTs practicing at these first two levels of the continuum are unlikely to frequently treat patients for alcohol or drug use issues; however, they may rarely do so or will consult with other professionals on relational issues related to alcohol or drug use.

The *Level 1* and *2* MedFT may have experience conducting research concerning substance use, considering the role of systemic factors, but this research would not consider interdisciplinary healthcare teams. A MedFT working with our case example patients, Elaina and Dustin, would have the ability to assess for Dustin's history of drug use and assess for his current level of alcohol use. The MedFT's questions would be systemically focused, asking about how the use has impacted their relationship and how they are working together as a couple on the recovery process. Finally, the MedFT would evaluate whether outpatient therapy was the most appropriate level of care, working with Dustin's PCP to ensure medical risks are being properly addressed.

Moving to *Level 3*, this behavioral health provider will be able to utilize both family therapy and assess using a BPSS framework. We would expect MedFTs practicing at this level to be able to collaborate with appropriate medical and behavioral healthcare providers and be able to function in a tertiary care setting. The skills that would be demonstrated would be the ability to work with other treatment team members to create treatment plans and cocreate goals, as well as motivate both the patient and their family to be engaged in the treatment process. *Level 3* skills also encompass the ability to create strong working relationships with each of the treatment providers (e.g., PCP, nurse, case worker, probation officer, nutritionist, and psychiatrist). Considering our case example, Tom, the MedFT, was able to stress the importance of working with other providers for adequate care. Dustin expressed concerns around being able to take time off of work for treatment, prompting Tom to recommend Dustin work with a case worker around employment challenges. In collaboration with the PCP, the MedFT would suggest the use of a detoxification center and work with the patient to motivate him to engage treatment. A *Level 3* MedFT may speak directly to the PCP about the alcohol assessment and potential medical risks associated with Dustin's use. If the PCP was not able to work with Dustin on his withdrawal symptoms, the MedFT could then help explore the option of detoxification further, by working with Dustin and Elaina to discuss their fears, to validate their concerns, and to normalize that many patients worry about the financial burden associated with intensive care. This process is most commonly achieved by utilizing motivational interviewing techniques.

Dustin's readiness to change would be evaluated based on the stages of change model and the *Level 3* MedFT would be proficient at applying motivational interviewing (MI) techniques to help the patient prepare to make changes. The MedFT must work to be supportive but continue to stress the safety risk associated with

quitting use without medical supervision. Finally, Tom would need to be prepared for questions relating to confidentiality with medical insurance and working with a PCP on alcohol and drug treatment issues, which is a common fear of patients who have insurance through their employers. Beyond clinical skills, the *Level 3* MedFT would be involved in research considering how integrated behavioral healthcare with the interdisciplinary healthcare team, as well as incorporating the patient's systems of support (e.g., family, friends), aids in reducing substance use and helping the patient move in to recovery. Policy work may also be addressed that urges for an understanding of addictive disorders as a medical condition, calling for insurance companies to provide better access to affordable care for the treatment of substance use disorders.

The MedFT who possesses the knowledge and skills outlined at *Level 4* will strongly identify as a MedFT and work primarily in a healthcare setting focused on alcohol and drug treatment. Common treatment settings that would have a diverse treatment team on site include both residential and inpatient treatment settings, as well as many outpatient treatment centers. This individual has an understanding of each of the treatment providers training, scope of practice, and role in accomplishing treatment goals. Further, the MedFT at *Level 4* will utilize treatment team members effectively, such as conducting joint treatment sessions with another provider and the patient, and would be active in attending. Their skills will also be enhanced by their knowledge of core content related to alcohol and drug treatment. Additionally, the *Level 4* MedFT will be engaged in conducting research related to the treatment of addiction in healthcare setting. This research would be informed by the biopsychosocial-spiritual model and would consider utilization of treatment teams for integrated behavioral healthcare. In our case example, Dustin shows signs of resisting Tom's recommendation to attend a detoxification center to monitor withdrawal symptoms. A MedFT functioning at *Level 4* would be able to help explain to Dustin the differences between what he experienced quitting methamphetamines last year and the serious medical risks associated with quitting alcohol when there are signs of physical dependence. Tom would be able to inform Dustin of what to expect at a detoxification center, the time investment required for this level of work, and how to better handle issues related to work absenteeism. Tom would coordinate with a case worker around employment options or community resources to make a stay from work more manageable. Additionally, Tom would also encourage Dustin to consider working with a psychiatrist if he was concerned about struggles with quitting alcohol, as the psychiatrist could prescribe medication that helps patients with alcohol use disorders. Finally, the MedFT at *Level 4* would also attend thoroughly to systemic issues related to substance abuse. Specifically, Tom would work with Elaina and Dustin to discuss how and when it will be appropriate for Elaina to ask about his abstinence from alcohol use and how they can support one another with the recovery process and most importantly address intimate partner violence and safety issues. The *Level 4* MedFT would recognize the benefit of incorporating behavioral couples therapy (BCT) for substance use, as it helps couples promote abstinence behaviors as well as improve positive relationship skills.

The fifth and final level of the continuum identifies a medical family therapist who has extensive practice in the treatment of alcohol and drug use and knows how to collaborate with treatment teams in different healthcare contexts (e.g., inpatient/residential, day treatment, outpatient). At *Level 5*, the MedFT would also have served in multiple roles, such as administration or supervision. Proficiency would be demonstrated in family therapy and BPSS approaches, and they would have comprehensive knowledge about substance use and recovery that extends beyond the basics of treatment—such as the effects of different classifications of substances of abuse, drug interactions, pharmacotherapy, and detoxification. These competencies would be seen in the MedFTs' ability to collaborate with all relevant professionals in the treatment of alcohol or drug use. This individual would also be widely engaged in the field of alcohol and drug use, engaging in mentoring activities related to supervision, connecting with their community to potentially facilitate prevention programs, and would be engaged in advancing the knowledge of this field through research. Their work may also extend to policymaking. The *Level 5* MedFT would be engaged in cutting-edge research, which would include using novel approaches (e.g., neuroimaging techniques, biomarkers) to improve understanding of the impact of addiction not only on the individual but their family system. The MedFT at this level would also be actively involved in policies that make funding available for research on addiction recovery.

Over the course of treatment, Tom could continue to work with Elaina and Dustin by providing additional recommendations for referral sources. For example, Tom may refer Dustin to a nutritionist to assess for nutritional deficiencies, which is common for patients who suffer from alcohol use disorder. The nutritionist would conduct an assessment, potentially prescribe nutrient supplements to correct issues related to issues of absorption, and then help create a meal plan that increases Dustin's likelihood of success with recovery. The supervisor on the case (KS) could use this case in the practicum setting to mentor students on how to effectively integrate the BPSS model in the treatment of alcohol and substance use and inform students of all the appropriate treatment team members that should be engaged in this process. This case could be utilized to inform future studies conducted by the supervisor or could be used to enhance educational opportunities at the supervisor's training program. The MedFT, Tom, as well as the supervisor (KS) could also be conducting research on the efficacy of substance use treatment. The MedFT and the supervisor could then use their findings to educate and work with local policymakers in establishing funding for both treatment and research in the area.

Research-Informed Practices

The establishment of MedFT and IBHC teams with alcohol and drug use treatment is a relatively new area of practice. Several different therapeutic approaches for behavioral health providers at both the individual (e.g., Barrowclough et al., 2009; Miller & Rollnick, 2002) and the systemic (e.g., Rowe, 2012) levels have been empirically

validated, and IBHC team approaches incorporating various members have been identified as efficacious (e.g., Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2003; de Shazer & Isebaert, 2003; Marlowe, 2003). Best practices for a MedFT working with an IBHC team, however, need further examination and validation.

Individual Approaches

Several evidence-based approaches exist to help individuals with recovery from drug or alcohol use. Motivational interviewing (MI) is a well-known approach associated with substance use treatment. MI is a goal-oriented, person-centered approach that focuses on the individual's perspectives and concerns (Miller & Rollnick, 2002). Behavioral health providers who practice MI describe this approach as a "way of being" with the patient that is directive but empathic with the patients' concerns for engaging in treatment and is most often used with another form of treatment (Hettema, Miller, & Steele, 2004). The use of motivational interviewing has been shown to increase participation in treatment, reduce consumption of drugs and alcohol, facilitate higher rates of abstinence, and aid in better social adjustment (Landry, 1996; Miller, Westerberg, & Waldron, 1995).

A MedFT may use MI in his or her early interactions with patients to explore patients' readiness to change and help them to identify the potential benefits of engaging in treatment. Further, the MedFT should work with the treatment team to ensure that all members of the treatment are working with the patient based on their readiness to change. Meeting the patients where they are in their readiness to change will validate their concerns and will prevent from pushing the patient beyond their view of their problem. The MedFT will then be able to better prepare the patients for the different types of treatment and treatment providers that they will engage and interact with. The MedFT may also find MI beneficial due to its ability to create change in brief sessions, as studies have found MI to be both statistically and clinically significant in 30 and 60 minute sessions (Callon et al., 2006; Kidorf, King, Gandotra, Kolodmer, & Brooner, 2012).

Another frequently used individual approach for the treatment of alcohol and drug use is cognitive-behavioral therapy (CBT; Beck, 1979; Magill & Ray, 2009). CBT has consistently been demonstrated as an effective model for reducing substance use (Barrowclough et al., 2009; Drummond et al., 2005; Glasner-Edwards et al., 2007; Maude-Griffin et al., 1998; Morgenstern, Blanchard, Morgan, Labouvie, & Hayaki, 2001). MedFT applications of CBT would include helping patients to identify negative thoughts that potentially trigger use, evaluating the positive and negative consequences related to their substance use, and developing new coping techniques to replace substance use behaviors (National Institute on Drug Abuse, 2012). For example, substance use can be a reinforcing behavior if it is effective at eliminating the patient's feelings of anxiety, and treatment can identify other means of achieving that outcome that are healthier for the patient. The exploration of triggering events may include assessing home environment stressors or other

interpersonal relationships that trigger thoughts relating to the need to use the substance of abuse as well as emotional responses to these thoughts. The MedFT would work with the individual to identify faulty thinking or other core beliefs that influence substance use and then work to change substance use behavior by challenging automatic cognitions and changing the reinforcement schedule for the substance use (Center for Substance Abuse Treatment, 1999). With knowledge about faulty cognitions or behavioral triggers for the alcohol or drug use, the MedFT would work with the treatment team to be sure all providers are mindful of not contributing to any of the patient's cognitive distortions and are not triggering the substance use behavioral response.

Couple and Family Approaches

Couple- and family-based approaches have been extensively reviewed over the past 20 years (Liddle & Dakof, 1995; Rowe, 2012; Rowe & Liddle, 2003) with the general conclusion being that such models for the treatment of alcohol and drug use are among the most effective approaches for both adolescents and adults (Rowe, 2012). This should come as no surprise due to the extensive empirical support for the link between family function and substance use (Fals-Stewart, Lam, & Kelley, 2009). The overarching goal of couple- and family-based treatment models is to use the support and power of family members to reduce substance use and make lifestyle changes, as well as to improve family functioning and interactions to create an environment more conducive to long-term recovery promotion (Fals-Sterwart, Lam, & Kelley, 2009). Rowe (2012) identified three main categories of couple- and family-based treatment for alcohol and drug use: (a) behavioral (e.g., behavioral couples therapy (BCT); O'Farell & Fals-Stewart, 2006), (b) family systems (Brief Strategic Family Therapy; Szapoczink & Kurtines, 1989), and (c) multiple systems approaches (e.g., multidimensional family therapy (MDFT; Liddle, 2002). Fischer, Baucom, and Cohen (2016) more recently advanced specific attention to the utility of cognitive-behavioral couple therapies (CBCT) while still recognizing power of extending this to broader family inclusion.

All of these approaches have been designed to target alcohol and drug use at different stages of life, specifically adolescence and adulthood. Because drug and alcohol use typically becomes problematic in adolescence, a large amount of research exists on effective treatment approaches for teens. Multiple comprehensive reviews of adolescent substance abuse treatment have concluded that MDFT is identified as not only efficacious (Vaughn & Howard, 2004), but viewed as one of the highest-quality models for working with teens and substance use (Becker & Curry, 2008). MDFT is an integrative, outpatient treatment approach that is categorized as a multiple systems-ecological approach. Change in substance use is targeted by working with the teen, their subsystems (teen-sibling, teen-parent), family system, and extra-familial systems (peers, school, juvenile justice system) to develop multiple alliances. MDFT has demonstrated an ability to have high retention rates in treatment

(Liddle, Dakof, Henderson, & Rowe, 2011) and to reduce teen drug use (Austin, MacGowan, & Wagner, 2005; Becker & Curry, 2008). For MedFT, MDFT presents a strong example of the power of collaborating with multiple providers and working as a treatment team, as evidenced by the integration of not only the teen and their parents, but by working with the school system, the community, and potentially the juvenile justice system. This could additionally include working with the teen's primary care physician or a psychiatrist for any co-occurring mental or medical health illness. The success of MDFT is based on its ability to address the teen's substance use at multiple levels in a collaborative model. A final model focused on addressing teen substance use that is noteworthy is functional family therapy (FFT; Alexander & Parsons, 1982). Integrating both behavioral therapy and systems-oriented approaches, FFT works to change maladaptive family interactions that are conceptualized as maintaining the teen's substance use. Behavioral interventions are used to create contingencies for promoting abstinence. Research has found that FFT can lead to improved family functioning and reduced recidivism among delinquent teens (Barton, Alexander, Waldron, Turner, & Warburton, 1985) and helps with reduction in substance use (Slesnick & Prestopnik, 2004).

Couple- and family-based models for the treatment of adult alcohol and drug users also have supporting evidence for their ability to reduce substance use (Stanton & Shadish, 1997). Researchers and behavioral health providers alike have recognized the power of these approaches for substance abuse due to the ability to create motivation to enter treatment, the recognition that all members of the family can be impacted due to substance use by one member, and that familial stress can create a barrier to recovery (Carlson, Smith, Matto, & Eversman, 2008; Dakof et al., 2010; Rowe, 2012). A well-researched model of adult treatment for addiction is behavioral couples therapy (BCT; O'Farell & Fals-Stewart, 2006; McCrady et al., 2016). BCT is an abstinence-based intervention for married or cohabitating substance abusers and their partners, which seeks to engage both partners in treatment, enhance relational dynamics, and support recovery efforts. BCT trials have found efficacy in comparison to individualized therapy models for outcomes related to relationship improvement, drug use, drug-related arrests, intimate partner violence, and hospitalizations (Fals-Stewart, Lam, & Kelley, 2009; McCrady et al., 2016).

Some insight gained from BCT research indicates that patients with comorbid disorders found greater improvement with BCT than individual treatment alone, those with a greater severity of drinking may reap the most benefits of treatment, and pretreatment relationship satisfaction may enhance the effects (McCrady et al., 2016). Particular active ingredients to the treatment have been examined, including partner skills training and relationship enhancement interventions, as have proposed mechanisms of behavior change (e.g., motivation, coping skills, couple interactions, and significant other supports; McCrady et al., 2016). It is worth noting that BCT has been examined more thoroughly in treating couples wherein the male partner is the identified patient (IP) and less so with female IPs (McCrady et al., 2016). Adaptations to account for different risk factors, societal influences, and consequences may be necessary in the treatment of women (McCrady et al., 2016). BCTs have been found to be efficacious with a wide variety of patient backgrounds and

circumstances. Our case example therapist, Tom, could have considered the integration of BCT to help Dustin and Elaina negotiate daily check-ins for sobriety by creating a daily sobriety contract and safely addressed their reported intimate partner violence.

Solution-focused therapy (SFBT), another systemic approach to treatment, has been applied to the treatment of substance use (Berg & Miller, 1992; de Shazer & Isebaert, 2003). This particular approach can be used with individuals or families. Although this approach can be used with an individual, the intent of the approach is to have a relational and systemic clinical impact. The MedFT would work with a patient in a collaborative manner to identify goals they have for treatment. The MedFT employing SFBT would not force a patient to choose abstinence or harm reduction as goals for the substance use. The focus of treatment is on the times when the patient was more successful with meeting his or her goals (i.e., exceptions) and also identifying the patient's existing resources or skills that can be employed to achieve his or her goals (i.e., means) (de Shazer & Isebaert, 2003). For example, a patient may identify a goal of reducing alcohol use, and so the MedFT would focus on the times the patient was able to reduce or eliminate substance use and to identify what solutions the patient was applying. Treatment would focus primarily on the patient's success and the solutions, and if one solution did not work, the MedFT would help the patient find a new solution. The MedFT could also employ scaling questions and the miracle question, which are part of the SFBT approach (see de Shazer & Isebaert, 2003). This approach can also be applied to different intensities of substance abuse. SFBT has been employed as both an inpatient and outpatient treatment approach and has been used in conjunction with family therapy and an IBHC team composed of psychiatrists and nurses (de Shazer & Isebaert, 2003). The MedFT can work with the integrated treatment team to focus care at all levels on the successes of the patient and to focus on the solutions that have been established as effective. The MedFT can work with the IBHC team to work with the patient in a way that collaboratively identifies the treatment goals, potentially training the other professionals on how to use solution-focused language.

Community Approaches

Community-based/self-help programs have a strong history in the treatment of substance use disorders (Alcoholics Anonymous [AA], 2014). Differing from group therapy, self-help groups are peer-facilitated forums that do not include the presence of a licensed professional. These groups are community-based (i.e., not sponsored by a hospital, clinic, or other care sites). They are utilized to facilitate social support through group participation. The most recognized self-help group associated with substance use is *Alcoholics Anonymous* (AA, 2017). AA identifies as a spiritual, abstinence-based group that is based on members helping members. It is most readily known for the application of the 12 steps, but also has 12 traditions, including anonymity for all and self-sufficiency.

AA is recognized under SAMHSA's National Registry of Evidence-based Programs and Practices (2017). A randomized clinical trial supported AA's role in maintaining abstinence through recovery when combined with a structured treatment (Walitzer, Dermen, & Barrick, 2009). AA's 12-Step program aligns well with core tenets of the BPSS model, insofar as both stress the consideration of spirituality in treatment (in the case of AA, it is about seeking a higher power to find one's path to recovery). Other self-help groups have been modeled after AA, including Narcotics Anonymous (2017), Overeaters Anonymous (2017), Al-Anon Family Groups (2011–2017) for friends and families of problem drinkers, and Families Anonymous (2017).

Although AA and 12-Step groups are the most well-known self-help programs for substance abuse, other self-help options exist. For instance, Rational Recovery (RR, 2017) is a self-help group based on rational emotive therapy and does not require commitment to long-term abstinence to achieve recovery. The Secular Organization for Sobriety (SOS, 2016) was designed for individuals who have struggled with the spiritual integration found in AA practices, stressing personal responsibility to achieve sobriety and recovery. In recognition that women did not always benefit from the conflictual tactics used in substance abuse treatment, the Women for Sobriety (WFS, 2016) was developed as the first national self-help program for women alcoholics. Finally, SMART or self-management and recovery training (SMART Recovery, 1994–2017) was developed as a secular, science-based alternative to 12-Step groups, and it incorporates cognitive-behavioral and rational emotive behavioral therapy to build motivation, cope with cravings, problem solve, and create new balance in life.

Recommending self-help programs within patients' local communities will require the MedFT to be well versed in both the assumptions and traditions of each organization, alongside understanding the potential advantages and disadvantages of each organization. Programs should be recommended based on the consideration of the needs of each individual patient, as a one-size-fits-all model is ineffective. Our MedFT Tom could have recommended AA as a resource for Dustin, alongside Al-Anon or Families Anonymous for Elaina. Working the step process with a sponsor could be helpful to these patients, and any challenges experienced in AA or Al-Anon could be further incorporated into treatment with the MedFT.

Conclusion

The MedFT's role in alcohol and drug treatment can be varied depending on location of practice and intensity of the patient's use, among other factors. Alcohol and drug treatment is unique in the type of professionals who may be involved in a treatment team, including psychiatrists, nurses, case workers, probation officers, primary care physicians, nutritionists, sponsors, and other behavioral health professionals. In an IBHC treatment system, the MedFT will play a crucial role in assessment, treatment, and team coordination. Regardless of whether the MedFT is

working in an already established IBHC team, this type of integrated behavioral healthcare can still be achieved, is encouraged, and is even an ethical matter. MedFTs may be the first point of contact for a patient with a need for alcohol and drug treatment. Substance use tends to go underreported by patients for various reasons, and it is sometimes seen as a separate issue from the presenting problem. Understanding the biopsychosocial-spiritual and family systems influences that affect and are affected by substance use will help the MedFT be a more effective treatment provider and treatment team member.

Reflection Questions

1. While working as a MedFT in alcohol and drug treatment contexts, under what conditions, if any, do you think that "moderate use" (rather than abstinence) is an appropriate patient goal?
2. When working with a patient who has both a physical dependency and financial challenges, what professionals would you integrate into a treatment team? How would you ethically balance the patient's financial concerns (e.g., limited health insurance) with his or her treatment needs for substance use/abuse?
3. What assumptions do you have about what it means to be a substance user, or an "addict"? How could these assumptions about the cause of use affect the direction you choose in your clinical work?

Glossary of Important Terms in Alcohol and Drug Treatment

Chemical dependency The physical and/or psychological dependence on one or more psychoactive drug.

Pharmacotherapy The practice of using drug action in the body to address/treat behavioral health issues; or, the field of medicine that addresses the use of medications to help treat or correct mental health illness and drug addiction.

Physical dependence The repeated use of licit or illicit substances can lead to a physiological reliance on the substance, which may include tolerance and withdrawal symptoms.

Polydrug abuse The use of several drugs either in succession or at the same time to achieve a certain effect.

Psychoactive substance Any substance that directly alters normal functioning of the central nervous system (CNS) when it is taken by means of injection, ingestion, inhalation, snorting, or absorbed by blood.

Psychological dependence A state of consciousness caused by substance use that will reinforce the dependence on substance use.

Psychotropic drugs Drugs used to treat behavioral health illnesses, including, but not limited to, antidepressants, antipsychotics, and anxiolytics.

Substance abuse The harmful or dangerous use of psychoactive substances, including alcohol and other licit or illicit chemical substances (e.g., prescription medication, marijuana, cocaine), that creates significant distress in the individual's life.

Tolerance The need for an increased amount of alcohol or drugs of abuse to experience an effect from use (this occurs after repeated use)—or the body's ability to consume greater amounts of a substance with the same physiological or psychological impact.

Withdrawal The abnormal physical or psychological response to the discontinuation of use of a licit or illicit substance that has the capability to produce physical dependence. Common withdrawal symptoms may include sweating, fever, vomiting, anxiety, insomnia, and muscle pain—or the body's attempt to reach homeostasis after a history of psychoactive drug use/abuse. Symptoms experienced by the individual will depend on several factors related to substance of abuse, frequency, and severity of use.

Additional Resources

Literature

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

Inaba, D. S., & Cohen, W. E. (2014). *Uppers, downers, all arounders: Physical and mental effects of psychoactive drugs* (8th ed.). Medford, OR: CNS Publications.

Juhnke, G. A., & Hagedorn, W. B. (2013). *Counseling addicted families: An integrated assessment and treatment model*. New York, NY: Routledge.

Lieber, C. S. (2012). *Medical and nutritional complications of alcoholism: Mechanisms and management.* New York, NY: Springer Science & Business Media.

Mee-Lee, D. (Ed.) (2013). *The ASAM criteria: Treatment criteria for addictive, substance-related and co-occurring conditions* (3rd ed.). North Bethesda, MD: American Society of Addiction Medicine.

Measures/Instruments

Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide. http://www.integration.samhsa.gov/Alcohol_Screening_and_Brief_Intervention_for_Youth_Guide_and_Medscape_Promotion.pdf

Alcohol Use Disorders Identification Test (AUDIT). http://www.integration.samhsa.gov/AUDIT_screener_for_alcohol.pdf

AUDIT-C. http://www.integration.samhsa.gov/images/res/tool_auditc.pdf

CAGE-AID. http://www.integration.samhsa.gov/images/res/CAGEAID.pdf

Computer-based Tools for Diagnosis and Treatment of Alcohol Problems. http://pubs.niaaa.nih.gov/publications/arh291/36-40.htm

Drug Abuse Screening Test (DAST-10). http://www.emcdda.europa.eu/attachements.cfm/att_61480_EN_DAST%202008.pdf

Level 2, Substance Use, Adult (Adapted from the NIDA-Modified ASSIST). https://www.psychiatry.org/psychiatrists/practice/dsm/dsm-5/online-assessment-measures

Level 2, Substance Use, Child Age 11 to 17 (Adapted from the NIDA-Modified ASSIST). https://www.psychiatry.org/psychiatrists/practice/dsm/dsm-5/online-assessment-measures

Level 2, Substance Use, Parent/Guardian of Child Age 6–17 (Adapted from the NIDA-Modified ASSIST). https://www.psychiatry.org/psychiatrists/practice/dsm/dsm-5/online-assessment-measures

Measuring Codependency: Composite Codependency Scale. (Marks, Blore, Hine, & Dear, 2012)

Measuring Codependency: Spann-Fischer Codependency Scale. (Fischer, Spann, & Crawford, 1991)

NIDAMED: Medical & Health Professionals Evidence-Based Screening Tools and Resource Materials. https://www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/chart-evidence-based-screening-tools-adults

Parent Motivation to Participate in Treatment: Parent Motivation Inventory. (Nock & Photos, 2006)

Readiness to Change Questionnaire. (Heather, Luce, Peck, Dunbar, & James, 1999)

Substance Use Screening & Assessment Instruments Database. http://lib.adai.washington.edu/instruments/

Organizations/Associations

Alcoholics Anonymous. http://www.aa.org/pages/en_US

Association for Addiction Professionals. http://www.naadac.org/

National Institute on Alcohol Abuse and Alcoholism. http://www.niaaa.nih.gov/

National Institute on Drug Abuse. https://www.drugabuse.gov/

Substance Abuse and Mental Health Services Administration. http://www.samhsa.gov/

U.S. Department of Health and Human Services. http://www.niaaa.nih.gov/

References[1]

Akhavain, P., Amaral, D., Murphy, M., & Cardon Uehlinger, K. (1999). Collaborative practice: A nursing perspective of the psychiatric interdisciplinary treatment team. *Holistic Nursing Practice, 13*, 1–11. https://www.ncbi.nlm.nih.gov/pubmed/10196897

Al-Anon Family Groups. (2011–2017). *Al-Anon family groups: Strength and hope for friends and families of problem drinkers*. Retrieved from http://www.al-anon.alateen.org/

[1] Note: References that are prefaced with an asterisk are recommended readings.

Alcoholics Anonymous. (2017). *What is A.A.?* New York, NY: Alcoholics Anonymous World Services. Retrieved from http://www.aa.org/pages/en_US/what-is-aa

Alcoholics Anonymous. (2014). *A brief history of the Big Book*. New York, NY: Alcoholics Anonymous World Services.

*Alexander, B. K. (1987). The disease and adaptive models of addiction: A framework evaluation. *Journal of Drug Issues, 17*, 47–66. https://doi.org/10.1177/002204268701700104.

Alexander, J., & Parsons, B. V. (1982). *Functional family therapy*. Monterey, CA: Brooks/Cole.

*American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

American Society of Addiction Medicine. (2011). *The definition of addiction*. Retrieved from http://www.asam.org/docs/default-source/public-policy-statements/1definition_of_addiction_long_4-11.pdf?sfvrsn=4

Austin, A. M., MacGowan, M. J., & Wagner, E. F. (2005). Effective family-based interventions for adolescents with substance use problems: A systemic review. *Research on Social Work Practice*, *15*, 67–83. https://doi.org/10.1177/1049731504271606

Barrowclough, C., Haddock, G., Beardmore, R., Conrod, P., Craig, T., Davies, L., … Wykes, T. (2009). Evaluating integrated MI and CBT for people with psychosis and substance misuse: Recruitment, retention and sample characteristics of the MIDAS trial. *Addictive Behaviors*, *34*, 859–866. https://doi.org/10.1016/j.addbeh.2009.03.007

Barton, C., Alexander, J., Waldron, H., Turner, C., & Warburton, J. (1985). Generalizing treatment effects of Functional Family Therapy: Three replications. *American Journal of Family Therapy*, *13*, 16–26. https://doi.org/10.1080/01926188508251260

Barnes, G., & Farrell, M. (1992). Parental support and control as predictors of adolescent drinking, delinquency, and related problem behaviors. *Journal of Marriage and Family, 54*, 763–776. http://www.jstor.org/stable/353159

Beck, A. (1979). *Cognitive therapy and emotional disorders*. Madison, CT: Penguin Group.

Becker, S., & Curry, J. (2008). Outpatient interventions for adolescent substance abuse: A quality of evidence review. *Journal of Consulting and Clinical Psychology*, *76*, 531–543. https://doi.org/10.1037/0022-006X.76.4.531

Berg, I. K., & Miller, S. D. (1992). *Working with the problem drinker: A solution-focused approach*. New York, NY: W. W. Norton.

Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment, 33*, 221–228. https://doi.org/10.1016/j.jsat.2007.06.001

Callon, C., Wood, E., Marsh, D., Li, K., Montaner, J., & Kerr, T. (2006). Barriers and facilitators to methadone maintenance therapy use among illicit opiate injection drug users in Vancouver. *Journal of Opioid Management*, *2*, 35–41. Retrieved from https://www.researchgate.net/profile/David_Marsh3/publication/6487367_Barriers_and_facilitators_to_methadone_maintenance_therapy_use_among_illicit_opiate_injection_drug_users_in_Vancouver/links/56786f9008aebcdda0ebd8bf.pdf

Carlson, B. E., Smith, C., Matto, H., & Eversman, M. (2008). Reunification with children in the context of maternal recovery from drug abuse. *Families in Society*, *89*, 253–263. https://doi.org/10.1606/1044-3894.3741

Castro, F., & Alarcón, E. (2002). Integrating cultural variables into drug abuse prevention and treatment with racial/ethnic minorities. *Journal of Drug Issues, 32*, 783–810. https://doi.org/10.1177/002204260203200304

Center for Substance Abuse Treatment. (1999). Brief cognitive-behavioral therapy. In *Brief interventions and brief therapies for substance abuse* (pp. 51–77). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Cosden, M., Ellens, J. E., Schnell, J. L., Yamini-Diouf, Y., & Wolfe, M. M. (2003). Evaluation of a mental health treatment court with assertive community treatment. *Behavioral Sciences and the Law*, *21*, 415–427. https://doi.org/10.1002/bsl.542

Dakof, G., Cohern, J., Henderson, C., Duarte, E., Boustani, M., Blackburn, A., Venzer, E., & Hawes, S. (2010). A randomized pilot study of the Engaging Moms Program for family drug court. *Journal of Substance Abuse Treatment, 38*, 263–274. https://doi.org/10.1016/j.jsat.2010.01.002

de Shazer, S., & Isebaert, L. (2003). The Bruges model: A solution-focused approach to problem drinking. *Journal of Family Psychotherapy*, *14*, 43–52. https://doi.org/10.1300/J085v14n04_04

Drake, R., Mueserk K., Brunette, M., McHugo, G., (2004). A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatric Rehabilitation Journal, 27*, 360–374. http://dx.doi.org/10.2975/27.2004.360.374

Drummond, C., Kouimtsidis, C., Reynolds, M., Russell, I., Godfrey, C., McCusker, M., … Porter, S. (2005). The effectiveness and cost effectiveness of cognitive behaviour therapy for opiate misusers in methadone maintenance treatment: A multicentre, randomised, controlled trial. *Drugs: Education, Prevention & Policy*, *12*, 69–76. Retrieved from https://kar.kent.ac.uk/id/eprint/16974

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, *196*, 129–136. https://doi.org/10.1126/science.847460

Engel, G. L. (1980). The clinical application of the biopsychosocial model. *American Journal of Psychiatry*, *137*, 535–544. https://doi.org/10.1176/ajp.137.5.535

Enoch, M. (2013). Genetic influences on the development of alcoholism. *Current Psychiatry Reports, 15*, 412–421. https://doi.org/10.1007/s11920-013-0412-1

Fals-Stewart, W., Lam, W., & Kelley, M. (2009). Learning sobriety together: Behavioral couples therapy for alcoholism and drug abuse. *Journal of Family Therapy*, *31*, 115–125. https://doi.org/10.1111/j.1467.2009.00458.x

Families Anonymous. (2017). *Families Anonymous recovery fellowship*. Des Plaines, IL: Families Anonymous. Retrieved from http://www.familiesanonymous.org/

Finkelstein, N. (1994). Treatment issues for alcohol- and drug- dependent pregnant and parenting women. *Health & Social Work, 19*, 7–15. https://doi.org/10.1093/hsw/19.1.7

*Fischer, M. S., Baucom, D. H., & Cohen, M. J. (2016). Cognitive-behavioral couple therapies: Review of the evidence for the treatment of relationship distress, psychopathology, and chronic health conditions. *Family Process, 55*, 423–442. https://doi.org/10.1111/famp.12227.

Fischner, J. L., Spann, L., & Crawford, D. (1991). Measuring codependency. *Alcoholism Treatment Quarterly*, *8*, 87–100. https://doi.org/10.1300/J020V08N01_06

Glasner-Edwards, S., Tate, S. R., McQuaid, J. R., Cummins, K., Granholm, E., & Brown, S. A. (2007). Mechanisms of action in integrated cognitive-behavioral treatment versus twelve-step facilitation for substance-dependent adults with comorbid major depression. *Journal of Studies on Alcohol and Drugs*, *68*, 663–672. 10.15288/jsad.2007.68.663

Goldstein, R., & Volkow, N. (2011). Dysfunction of the prefrontal cortex in addiction: Neuroimaging findings and clinical implications. *Nature Reviews Neuroscience, 12*, 652–669. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462342/

Griffiths, M. (2005). A 'components' model of addiction within a biopsychosocial framework. *Journal of Substance Use*, *10*, 191–197. https://doi.org/10.1080/14659890500114359

Gruber, K. J., & Taylor, M. F. (2006). A family perspective for substance abuse: Implications from the literature. *Journal of Social Work Practice in the Addictions*, *6*, 1–29. https://doi.org/10.1300/J160v06n01_01

Hasin, D., & Kilcoyne, B. (2012). Comorbidity of psychiatric and substance use disorders in the United States: Current issues and findings from the NESARC. *Current Opinion in Psychiatry*, *25*, 165–171. https://doi.org/10.1097/YCO.0b013e3283523dcc

Hearn, W. L., Rose, S., Ciarleglio, A., & Mash, D. C. (1991). Cocaethylene is more potent than cocaine in mediating lethality. *Pharmacology Biochemistry and Behavior*, *39*, 532–533. https://doi.org/10.1016/0091-3057(91)90222-N

Heather, N., Luce, A., Peck, D., Dunbar, B., & James, I. (1999). Development of a treatment version of the Readiness to Change Questionnaire. *Addiction Research*, *7*, 63–83. https://doi.org/10.3109/16066359909004375

Hettema, J., Miller, W., & Steele, J. (2004). A meta-analysis of motivational interviewing techniques in the treatment of alcohol use disorders. *Alcoholism-Clinical and Experimental Research, 28*, 74A–74A (supplement).

Hodgson, J., Lamson, A., Mendenhall, T., & Tyndall, L. (2014). Introduction to medical family therapy: Advanced applications. In J. Hodgson, A. Lamson, T. Mendenhall, and D. Crane (Eds.), *Medical family therapy: Advanced applications* (pp. 1–9). New York, NY: Springer.

Ilgen, M., Wilbourne, P., Moos, B., & Moos, R. (2008). Problem-free drinking over 16 years among individuals with alcohol use disorders. *Drug and Alcohol Dependence, 92*, 116–122. https://doi.org/10.1016/j.drugalcdep.2007.07.006

*Inaba, D. S., & Cohen, W. E. (2014). *Uppers, downers, all arounders: Physical and mental effects of psychoactive drugs* (8th ed.). Medford, OR: CNS Publications.

Islam, S. K. N., Hossain, K. J., Ahmed, A., & Ahsan, M. (2002). Nutritional status of drug addicts undergoing detoxification: Prevalence of malnutrition and influence of illicit drugs and lifestyle. *British Journal of Nutrition*, *88*, 507–513. https://doi.org/10.1079/BJN2002702

*Juhnke, G. A., & Hagedorn, W. B. (2013). *Counseling addicted families: An integrated assessment and treatment model*. New York, NY: Routledge.

Kerr, D., Capaldi, D., Pears, K., & Owen, L. (2012). Intergenerational influences on early alcohol use: Independence from the problem behavior pathway. *Development and Psychopathology, 24*, 889–906. https://doi.org/10.1017/S0954579412000430

Kidorf, M., King, V. L., Gandotra, N., Kolodner, K., & Brooner, R. K. (2012). Improving treatment enrollment and re-enrollment rates of syringe exchangers: 12-month outcomes. *Drug Alcohol Dependence*, *124*, 162–166. https://doi.org/10.1016/j.drugalcdep.2011.12.008

Landry, M. J. (1996). *Overview of addiction treatment effectiveness. HHSPub. No. (SMA) 96–3081*. Rockville, MD: Diane Publishing.

Li, D., Zhao, H., & Gelernter, J. (2011). Strong association of the alcohol dehydrogenase 1B gene (ADH1B) with alcohol dependence and alcohol-induced medical diseases. *Biological Psychiatry, 70*, 504–512. https://doi.org/10.1016/j.biopsych.2011.02.024

Liddle, H. A. (2002). *Multidimensional family therapy for adolescent cannabis users, cannabis youth treatment (CYT) series (Vol. 5)*. Rockville, MD: Center for Substance Abuse Treatment (CSAT). Retrieved from http://files.eric.ed.gov/fulltext/ED478685.pdfhttp://files.eric.ed.gov/fulltext/ED478685.pdf

Liddle, H., & Dakof, G. (1995). Efficacy of family therapy for drug abuse: Promising but not definitive. *Journal of Marital and Family Therapy*, *21*, 511–544. https://doi.org/10.1111/j.1752-0606.1995.tb00177.x

Liddle, H., Dakof, G. A., Henderson, C. E., & Rowe, C. L. (2011). Implementation outcomes of mutli-dimensional family therapy-detention to community (DTC): A reintegration program for drug-using juvenile detainees. *International Journal of Offender Therapy and Comparative Criminology*, *55*, 587–604. https://doi.org/10.1177/0306624X10366960

*Lieber, C. S. (2012). *Medical and nutritional complications of alcoholism: Mechanisms and management*. New York, NY: Springer.

Lieber, C. S. (2003). Relationships between nutrition, alcohol use, and liver disease. *Alcohol Research & Health*, *27*(3), 220–231. Retrieved from https://pubs.niaaa.nih.gov/publications/arh27-3/220-231.htm?ref=vidupdatez.com/image

Magill, M., & Ray, L. A. (2009). Cognitive-behavioral treatment with adult alcohol and illicit drug users: A meta-analysis of randomized controlled trials. *Journal of Studies on Alcohol and Drugs*, *70*, 516–527. 10.15288/jsad.2009.70.516

Marijuana and the Law. (2016). *Marijuana and the law*. Retrieved from http://www.marijuanaandthelaw.com/

Marlatt, G. A., & Witkiewitz, K. (2002). Harm reduction approaches to alcohol use: Health promotion, prevention, and treatment. *Addictive Behaviors*, *27*, 867–886. https://doi.org/10.1016/S0306-4603(02)00294-0

Marlowe, D. (2003). Integrating substance abuse treatment and criminal justice supervision. *Addiction Science & Clinical Practice, 2*, 4–14. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2851043/?report=reader

Mathers, B. M., Degenhardt, L., Phillips, B., Wiessing, L., Hickman, M., Strathdee, S. A., … Mattick, R. P. (2008). Global epidemiology of injecting drug use and HIV among people who inject drugs: A systematic review. *The Lancet*, *372*, 1733–1745. https://doi.org/10.1016/S0140-6736(08)61311-2

Maude-Griffin, P. M., Hohenstein, J. M., Humfleet, G. L., Reilly, P. M., Tusel, D. J., & Hall, S. M. (1998). Superior efficacy of cognitive behavioral therapy for urban crack cocaine abusers: Main and matching effects. *Journal of Consulting and Clinical Psychology*, *66*, 832–837. https://doi.org/10.1037/0022-006X.66.5.832

McCance, E. F., Price, L. H., Kosten, T. R., & Jatlow, P. I. (1995). Cocaethylene: Pharmacology, physiology and behavioral effects in humans. *Journal of Pharmacology and Experimental Therapeutics*, *274*, 215–223. Retrieved from http://jpet.aspetjournals.org/content/jpet/274/1/215.full.pdf

McCrady, B. S., Wilson, A. D., Muñoz, R. E., Fink, B. C., Fokas, K., & Borders, A. (2016). Alcohol-focused behavioral couple therapy. *Family Process*, *55*, 443–459. https://doi.org/10.1111/famp.12231

*Mee-Lee, D. (Ed.) (2013). *The ASAM criteria: Treatment criteria for addictive, substance-related and co-occurring conditions* (3rd ed.). North Bethesda, MD: American Society of Addiction Medicine.

Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change, vol. 2*. New York, NY: Guilford.

*Miller, W. R. & Clunies, S. (Eds.) (2000). *Enhancing motivation for change in substance abuse treatment.* Rockville, MD: Diane Publishing.

Miller, W. R., Westerberg, V. S., & Waldron, H. B. (1995). Evaluating alcohol problems in adults and adolescents. In R. Hester and R. Miller (Eds.), *Handbook of alcoholism treatment approaches: Effective alternatives* (2nd ed., pp. 61–88). Boston, MA: Allyn & Bacon.

Mirijello, A., D'Angelo, C., Ferrulli, A., Vassallo, G., Antonelli, M., Caputo, F., … Addolorato, G. (2015). Identification and management of alcohol withdrawal syndrome. *Drugs*, *75*, 353–365. https://doi.org/10.1007/s40265-015-0358-1

Morgenstern, J., Blanchard, K. A., Morgan, T. J., Labouvie, E., & Hayaki, J. (2001). Testing the effectiveness of cognitive-behavioral treatment for substance abuse in a community setting: Within treatment and posttreatment findings. *Journal of Consulting and Clinical Psychology*, *69*, 1007–1017. https://doi.org/10.1037/0022-006X.69.6.1007

Myrick, H., & Anton, R. F. (1998). Treatment of alcohol withdrawal. *Alcohol Research and Health*, *22*, 38–43. Retrieved from http://login.ezproxy.lib.umn.edu/login?url=http://search.proquest.com/docview/222384220?accountid=14586

Narcotics Anonymous. (2017). *Narcotics Anonymous world services*. Van Nuys, CA: NA World Services. Retrieved from https://na.org/

*National Association for Addiction Professionals. (2009). *The basics of addiction counseling: Desk reference and study guide. Module 1: The pharmacology of psychoactive substance use, abuse and dependence* (10th ed.). Alexandria, VA: NAADAC.

*National Institute on Drug Abuse. (2012). *Principles of drug addiction treatment: A research based guide*. Retrieved from http://www.drugabuse.gov/publications/principles-drug-addiction-treatment

Nock, M. K., & Photos, V. (2006). Parent motivation to participate in treatment: Assessment and prediction of subsequent participation. *Journal of Child and Family Studies*, *15*, 333–346. https://doi.org/10.1007/s10826-006-9022-4

Noël, X., Brevers, D., & Bechara, A. (2013). A neurocognitive approach to understanding the neurobiology of addiction. *Current Opinion in Neurobiology*, *23*, 632–638. https://doi.org/10.1016/j.conb.2013.01.018

Nolen-Hoeksema, S., & Hilt, L. (2006). Possible contributors to the gender differences in alcohol use and problems. *Journal of General Psychology, 133*, 357–374. https://doi.org/10.3200/GENP.133.4.357-374

*O'Farell, T. J., & Fals-Stewart, W. (2006). *Behavioral couples therapy for alcoholism and drug abuse.* New York, NY: Gilford Press.

Overeaters Anonymous. (2017). *Overeaters anonymous: You are not alone anymore!* Rio Rancho, NM: Overeaters Anonymous. Retrieved from https://oa.org/

RachBeisel, J., Scott, J., & Dixon, L. (1999). Co-occurring severe mental illness and substance use disorders: A review of recent research. *Psychiatric Services*, *50*, 1427–1434. https://doi.org/10.1176/ps.50.11.1427

Rational Recovery (2017). *Rational recovery: How to quit your addiction right now—for life.* Rational Recovery Systems, Inc. Retrieved from https://rational.org/index.php?id=94

*Rowe, C. L. (2012). Family therapy for drug abuse: Review and updates 2003–2010. *Journal of Marital and Family Therapy, 38*, 59–81. https://doi.org/10.1111/j.1752-0606.2011.00280.x.

Rowe, C. L., & Liddle, H. A. (2003). Substance abuse. *Journal of Marital and Family Therapy*, *29*, 97–120. https://doi.org/10.1111/j.1752-0606.2002.tb00386.x

Salyers, M. P., & Tsemberis, S. (2007). ACT and recovery: Integrating evidence-based practice and recovery orientation on assertive community treatment teams. *Community Mental Health Journal*, *43*, 619–641. https://doi.org/10.1007/s10597-007-9088-5

SAMHSA's National Registry of Evidence-based Programs and Practices. (2017). *Intervention summary: Twelve step facilitation therapy*. Retrieved from http://legacy.nreppadmin.net/ViewIntervention.aspx?id=358

Secular Organizations for Sobriety. (2016). *SOS: Together we can recover.* Los Angeles, CA. Retrieved from http://www.sossobriety.org/what-we-do

Selbekk, A. S., Sagvaag, H., & Fauske, H. (2015). Addiction, families and treatment: A critical realist search for theories that can improve practice. *Addiction Research & Theory*, *23*, 196–204. https://doi.org/10.3109/16066359.2014.954555

Shaffer, H. J., LaPlante, D. A., LaBrie, R. A., Kidman, R. C., Donato, A. N., & Stanton, M. V. (2004). Toward a syndrome model of addiction: Multiple expressions, common etiology. *Harvard Review of Psychiatry*, *12*, 367–374. https://doi.org/10.1080/10673220909057O5

Slesnick, N., & Prestopnik, J. L. (2004). Office versus home-based family therapy for runaway, alcohol abusing adolescents: Examination of factors associated with treatment attendance. *Alcoholism Treatment Quarterly*, *22*, 3–19. https://doi.org/10.1300/J020v22n02_02

SMART Recovery. (1994–2017). *SMART Recovery: Self-management and recovery training*. Retrieved from http://www.smartrecovery.org/intro/

Stanton, M. D., & Shadish, W. R. (1997). Outcome, attrition, and family-couples treatment for drug abuse: A meta-analysis and review of the controlled, comparative studies. *Psychological Bulletin*, *122*, 170–191. https://doi.org/10.1037/0033-2909.122.2.170

Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 National Survey on Drug Use and Health: Summary of national findings, NSDUH Series H-48, HHS Publication No. (SMA) 14–4863*. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf

Szapocznik, J., & Kurtines, W. M. (1989). *Breakthroughs in family therapy with drug-abusing and problem youth*. New York, NY: Springer.

Vanderplasschen, W., Rapp, R. C., Wolf, J. R., & Broekaert, E. (2004). The development and implementation of case management for substance use disorders in North America and Europe. *Psychiatric Services*, *55*, 913–922. https://doi.org/10.1176/appi.ps.55.8.913

Vaughn, M. G., & Howard, M. O. (2004). Adolescent substance abuse treatment: A synthesis of controlled evaluations. *Research on Social Work Practice*, *14*, 325–335. https://doi.org/10.1177/1049731504265834

Walitzer, K. S., Dermen, K. H., & Barrick, C. (2009). Facilitating involvement in Alcoholics Anonymous during out-patient treatment: A randomized clinical trial. *Addiction*, *104*, 391–401. https://doi.org/10.1111/j.1360-0443.2008.02467.x

Wells, K., Klap, R., Koike, A., & Sherbourne, C. (2001). Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. *American Journal of Psychiatry, 158*, 2027–2032. https://doi.org/10.1176/appi.ajp.158.12.2027

Women for Sobriety. (2016). *Women for sobriety*. Quakertown, PA: Women For Sobriety. Retrieved from http://womenforsobriety.org/beta2/

Wright, L., Watson, W., & Bell, J. (1996). *Beliefs: The heart of healing in families and illness*. New York, NY: Basic Books.

Zucker, R. A., & Gomberg, E. S. (1986). Etiology of alcoholism reconsidered: The case for a biopsychosocial process. *American Psychologist, 41*, 783–793. http://dx.doi.org/10.1037/0003-066X.41.7.783