

Treatment Considerations in Patients With Addictions

Mark J. Albanese, MD, and Howard J. Shaffer, PhD

Focus Points

- Treatment of addictions consists of a variety of components delivered in varied settings.
- Nonspecific factors are an important component of any treatment, including treatment of addiction disorders.
- Stage-change theory provides one framework for properly matching treatment interventions to a patient's stage of recovery.

Abstract

While many elect to recover from addictive disorders on their own, others choose clinical care. Treatment can occur in a variety of settings and represents an array of clinical modalities. A combination of modalities, such as pharmacologic and psychosocial interventions, yields the most favorable treatment outcomes. Nonspecific treatment factors (eg, empathy and countertransference) also considerably influence treatment outcomes. The treatment process is enhanced when clinicians match clinical interventions with patients' motivation for change and their stage of addiction or recovery. More research is needed to elucidate the effects of different treatment interventions on long-term outcomes.

Introduction

Addictive disorders are among the most prevalent biobehavioral conditions in the United States. The National Comorbidity Survey estimates that among the US population between 18 and 54 years of age, the 1-year prevalence of alcohol use and drug use disorders is approximately 10% and 4%, respectively.¹ Similarly, the Epidemiologic Catchment Area study estimates the 1-year prevalence of these disorders to be 9% and 4%, respectively. The prevalence of these disorders is even higher among people with a psychiatric illness.^{1,5} Between 11% and 18% of community members diagnosed with a clinically significant substance abuse or dependence disorder seek treatment from nonspecialty general medical or health systems resources; another 11% seek treatment from the specialty mental health and addiction services sector.¹ The good news is that effective treatments for

addictions are available. For example, methadone maintenance treatment for opioid dependence is associated with decreased heroin and cocaine use, reduced criminal behavior, and a lower rate of human immunodeficiency virus (HIV) seroconversion.⁶⁻¹³

Although treatment for addiction is efficacious and cost effective, many clinicians do not understand the tenets of such care. This article reviews some principles and components of addiction treatment, as well as factors that often influence treatment outcomes. The natural history of addiction and how it relates to treatment efforts is examined, illustrating the importance of coordinating clinical activities with a patient's place in the recovery process. Finally, the course of addiction using a stage-change perspective that integrates a variety of theoretical views is discussed.¹⁴⁻¹⁶

About Recovery: Addiction is Reversible

Treatment is just one of several pathways to allaying addictive behaviors. Considerable evidence indicates that many addictions (eg, drinking, gambling, smoking, drug use) can resolve without formal treatment.¹⁷⁻²⁷ Similarly, assisted recovery need not always involve clinicians; self-help fellowships, such as Alcoholics Anonymous (AA), are also an option.

Unassisted or "Natural" Recovery

Conventional wisdom has assumed that there are only two ways out of any addiction—treatment or death. However, since Winick²⁴ first described "maturing out" of narcotic use, the idea of recovery from addiction without treatment has caught the attention of many clinical investigators. Research suggests that recovery from addiction without treatment is more common than previously expected.^{17,20,27} Those who experience unassisted recovery tend to have milder forms of their disorder and fewer coexisting problems that complicate the recovery process.

Assisted Recovery

Not everyone can effectively evoke natural recovery processes. Consequently, many people who might revise their behavior without treatment¹⁷⁻²⁰ seek treatment and recovery through clinical pathways; the majority of these treatment seekers access clinicians who are not addiction specialists. The following principles of treatment will assist clinicians of every specialty in helping patients with addictive disorders.

Dr. Albanese is medical director of addictions at the Cambridge Health Alliance in Cambridge, Massachusetts. He is also advanced fellow in addictions studies in the Division on Addictions and assistant clinical professor of psychiatry in the Department of Psychiatry at Harvard Medical School in Boston.

Dr. Shaffer is director of the Division on Addictions and associate professor of psychology in the Department of Psychiatry at Harvard Medical School.

Disclosure: Dr. Albanese was supported by the Arcadia Charitable Trust and has received research grants from Eli Lilly and Janssen.

Please direct all correspondence to: Mark J. Albanese, MD, Medical Director, Addictions, Cambridge Health Alliance, 26 Central St, Somerville, MA 02143; Tel: 617-591-6020; Fax: 617-591-6054; E-mail: MAlbanese@challiance.org.

Treatment Settings

Treatment can take place in diverse settings, with various levels of containment. At one end of the spectrum is treatment within a correctional facility. At the other end is treatment that occurs in a patient's home (eg, outpatient detoxification), workplace (eg, employee assistance programs), or church basement (eg, AA meeting). In between, the range of settings includes hospital inpatient units, residential facilities (eg, group homes and therapeutic communities), hospital partial care, day treatment programs, community mental health centers, and addiction treatment centers.

Treatment Strategies:

Addiction as a Syndrome

Addictive disorders have a variety of characteristics that require treatment. Addiction is a syndrome with common and unique elements. The common attributes, such as anxiety and depression, are shared with other mental disorders. The unique elements, such as increasing the amount of drug used to get the same psychoactive effect as experienced with lesser dosages, are exclusive to substance use disorders. Like other syndromes (eg, acquired immunodeficiency syndrome), addiction has many treatment targets and it responds best to a comprehensive biopsychosocial approach.⁸ For example, clinicians can combine medications and various forms of psychotherapy and counseling to address a range of problems (eg, biologic, cognitive, behavioral). Each of these treatments is available in short-term and longer-term configurations. These various treatment elements are both additive and interactive, a circumstance necessary to deal with the multidimensional nature of addictive disorders.

For patients with psychiatric comorbidity, integrating addiction care with biopsychosocial treatment produces better outcomes. For example, McClellan and colleagues⁸ controlled the methadone dosage for opiate abusers to 60–90 mg/day and randomized them to one of three levels of psychosocial treatment for 6 months: methadone alone (ie, minimum methadone services [MMS]); methadone plus counseling (ie, standard methadone services [SMS]); and methadone plus counseling and on-site medical, psychiatric, employment, and family therapy (ie, enhanced methadone services [EMS]). Although MMS subjects

exhibited reductions in opiate use, 69% of them met criteria for protective transfer to SMS (ie, eight consecutive weekly urines positive for heroin or cocaine, or three or more medical/psychiatric emergencies). This was significantly different from the SMS subjects (41%) and EMS subjects (19%) who met these criteria. End-of-treatment outcomes revealed that the SMS group showed significantly more and greater improvements than did the MMS group, and the EMS group showed significantly better outcomes than did the SMS group. MMS subjects who had been protectively transferred to SMS showed significant reductions in opiate and cocaine use within 4 weeks.

Components of Treatment

The following sections examine some of the components of a biopsychosocial approach to addictions treatment.

Pharmacotherapy

Pharmacologic agents can be one component of a comprehensive treatment plan. Agonists are used as substitutes for substances of abuse during detoxification or maintenance treatment. For example, methadone may be used as a substitute for heroin and nicotine patches for cigarettes. Antagonists or partial agonists compete with substances of abuse, preventing psychoactive substances from interacting at the nerve cell receptors where they exert their effects. For example, naltrexone is an antagonist and buprenorphine a partial agonist of heroin at the brain's opioid receptors.

Aversive agents cause an unpleasant effect if a person ingests an addictive substance while taking medication for treatment of addiction to that substance. Disulfiram, for example, prevents the complete metabolism of alcohol, resulting in the accumulation of an unpleasant metabolite. Anticraving agents decrease craving for a substance. Naltrexone works at least partially via this mechanism to decrease alcohol ingestion. Agents for comorbid disorders are also frequently prescribed. Among these drugs are agents for medical problems (eg, HIV medications) and psychiatric disorders (eg, antidepressants). Of note, some psychopharmacologic agents can address both the addiction and the psychiatric disorder. For example, some antidepressants improve both the depression

and alcohol problem,²⁸ and some of the newer antipsychotic medications alleviate both the psychotic symptoms and the substance use.²⁹

Pharmacotherapy is probably underutilized in patients with addiction. One likely reason is patient ambivalence. For example, patients with two or more stigmatizing mental illnesses (eg, dual or multiple diagnoses) frequently will not take prescribed medication in order to convince themselves that they do not have an illness. Consider a common refrain from our substance-abusing patients: "I might be an addict, but I'm not crazy, doc." Conversely, for some patients, the grass is greener in another diagnostic category. For example, consider the patient with alcoholism who believes that the real (ie, only) problem is underlying depression, which he or she is self-medicating with alcohol, or the patient with schizophrenia who is convinced that it is cocaine use that is causing the psychotic symptoms.

Clinicians experience ambivalence in a variety of forms. Physicians worry that treating substance-abusing patients with medications enables addiction. Consequently, treatment providers are often reluctant to prescribe psychoactive medication for people with drug use disorders. They believe they are exchanging one type of chemical dependence for another. In the authors' experience, these beliefs represent countertransference, providing the treatment provider with a rationalization for limiting the clinical relationship.

Of note, patients with addictions can be more sensitive to medication side effects. Frequently, the side effects resemble the uncomfortable feelings experienced during intoxication or withdrawal. For example, the stimulating side effect of an antidepressant could be reminiscent of the psychomotor agitation or anxiety that emerges during alcohol withdrawal. Weiss and colleagues³⁰ recently reported that side effects were the most common reason for lithium noncompliance in substance-abusing patients with bipolar disorder. Physicians should start patients on low doses, and then increase the dose very gradually to therapeutic levels; it is sometimes useful to aim for a lower-than-usual maintenance dose. Alternatively, it is sometimes necessary to use more than one medication in especially refractory

dual-diagnosis patients.³¹⁻³³ Finally, given the potential serious adverse consequences of addictions (eg, suicide and violence) and the relative safety of most medications, the safer treatment course is to err on the side of more liberal use of appropriate medication.

As discussed later, matching treatment to client is crucial. In terms of pharmacology, some studies³⁴ have suggested that different subgroups of patients with alcoholism exhibit distinct responses to selective serotonin reuptake inhibitors (eg, citalopram, fluoxetine), and other data suggest that men and women respond differently to these medications.³⁵

Psychosocial Treatment

There is a considerable range of psychosocial treatment modalities for patients with substance use disorders. These modalities include individual, couples, family, network, vocational, and group therapy. Furthermore, there are a variety of treatment approaches within these modalities. For example, treatments can be psychoeducational, cognitive, behavioral, or psychodynamic. Some observers might include self-help programs (eg, AA or Gamblers Anonymous) among psychosocial treatments. However, these programs are fellowships and should not be considered formal treatments, although they can be very therapeutic.

As noted, when pharmacologic interventions are combined with psychosocial treatments, clinical outcomes improve. In general, however, studies have not demonstrated the superiority of one psychosocial approach compared with others. For example, in the Harvard Cocaine Recovery Project, cocaine-dependent individuals received either one of two group treatments or no group modality. Both recovery training and self-help (ie, a cognitive-behavioral approach) and modified dynamic group therapy (MDGT) (ie, a psychodynamic approach) were similarly more effective than treatment without a group modality.³⁶ Similarly, Project Match found, for the most part, that people with alcohol disorders showed improvement whether they received coping skills, motivational enhancement therapy, or 12-step facilitation (TSF) therapy.³⁷ Despite the observation that participants in Project Match improved

regardless of treatment type, as with pharmacologic treatments, there is some support for matching psychosocial interventions.

In the outpatient arm of the trial there was a matching effect for one specified contrast of the psychiatric severity hypothesis. Although the original conceptualization of this hypothesis was that individuals high in psychopathology would have better drinking outcomes with cognitive-behavioral therapy (CBT) rather than TSF, results indicated that there was no reliable difference in the outcome of high psychopathology subjects. On the other hand, subjects without psychopathology had significantly more abstinence in 7 of the 12 follow-up months when treated with TSF rather than CBT. On average, the TSF advantage over CBT was approximately 4 more abstinent days per month.³⁷

Just as one theory of addiction does not necessarily preclude other theories, one psychosocial treatment approach does not preclude others. For example, the authors have developed both an inpatient state hospital dual-diagnosis treatment program and an outpatient substance abuse treatment program that include a variety of groups (eg, relapse prevention, AA and Narcotics Anonymous, and MDGT) that are available for clinicians to suggest according to patient needs identified during a comprehensive clinical evaluation.

Factors That Influence Treatment Outcomes

Nonspecific Factors

Nonspecific or common factors account for a considerable amount of treatment outcome.^{38,39} Hubble and colleagues³⁸ suggest that nonspecific treatment factors include the extratherapeutic attributes that patients bring with them to treatment (eg, education, family support); the relationship factors expressed by the treatment provider (eg, empathy, caring, warmth); and the hope, expectancies, and placebo effects that are often associated with the start of treatment. Therapist training and experience, as well as opportunities for relapse prevention, can also influence treatment outcomes. Thus, the unique effects of particular treatment programs might be easily mistaken for nonspecific effects that accompany all programs.

A full discussion of the nonspecific factors that influence treatment outcome is beyond the scope of this article. However, there are many useful resources for readers interested in the factors common to successful treatment.³⁸⁻⁴⁹ Recognizing nonspecific treatment effects holds the potential to maximize specific treatment benefits. Nonspecific treatment factors also can contribute to poorer outcomes, such as when the relationship between clinician and patient is less than optimal. Arguably the most important adverse relationship factor expressed by the treatment provider is countertransference hate.^{42,45}

Countertransference and Countertransference Hate

People have a tendency to feel congratulatory when someone reveals good news, for example, that he or she is getting married, entering a detoxification facility, or abstaining from gambling. In contrast, a revelation of bad news, such as impending divorce, often stimulates sympathetic feelings. Such responses in a clinician represent countertransference. Weiner stated the following⁵⁰:

When a therapist feels or acts toward a patient in ways that are neither part of the real relationship, rationally justified by the circumstances, nor part of the working alliance, appropriate to the terms of the treatment contract, he is manifesting countertransference.

Rather than expressing either congratulations or sympathy, a more effective clinical posture would be to ask, "When did you decide?" "How did you decide?" or "What is that going to be like for you?" Congratulations might leave relapsing patients in a difficult position: if they share their difficulties with their therapist in the future, there is a risk that they might disappoint the treatment provider. This type of situation can limit what patients are willing to disclose to their therapist.⁴⁵

Countertransference can influence not only patient behavior, but also therapist behavior. When patients experience ambivalence about changing their addictive behavior patterns, treatment providers often get frustrated, angry, and perhaps even malevolent.⁴⁵ Maltzberger and Buie⁴² suggest that clinical hate and rage comprise three primary elements: malice, aversion, and a

mixture of these two emotions. Malicious impulses stimulate a disgust that can make patients seem loathsome (eg, disgust about patients who are self-indulgent). Under these circumstances, patients can become the object of punishment. However, Maltsberger and Buie⁴² are quick to note that malicious impulses are less dangerous than aversive tendencies because malice allows clinicians to maintain a clinical relationship with a patient whether he or she is abominated or loathed. Aversive impulses, by contrast, tempt the therapist to abandon the patient. Finally, unbearable malicious impulses often stimulate aversive actions. Malicious impulses are more painful to clinicians than the tendency to avoid.⁴² Therefore, when patients stimulate malevolent impulses, clinicians tend to avoid having to confront or continue working with these individuals. Clinicians need to be aware of these tendencies in order not to drive patients from treatment.

The Course of Addiction

Stage-change concepts have emerged as an important force in the treatment of addictive behaviors.^{14,16,45,47,51-55} Stage-change theory suggests that an evaluation of a person's readiness to change and determination of that person's stage of change are important steps to formulating appropriately matching treatment strategies.⁴⁷ Motivational enhancement techniques^{16,47,56-58} can facilitate this process and guide intervention strategies.

Initiation and Positive Consequences

Initiation marks a patient's first involvement with an object or activity. When this early experience is positive, the relationship with the object of interest is reinforced and tends to continue. For some, this relationship becomes excessive and leads to adverse consequences.

Emergence of Adverse Consequences

Before patients seek treatment, they often experience various problems and have little awareness that their excessive behavior pattern is the primary cause of these difficulties. At this stage, patients are not considering a behavioral change. Their drinking, drugging, or gambling is still viewed as a positive experience. When people experience both positive and negative feelings about an object

or activity, they are ambivalent. This ambivalence can become painful and lead to denial. Consequently, the first major clinical challenge is to enhance awareness of consequences and overcome resistance to change. In many cases, inviting or engaging someone struggling with addiction into treatment is the focus of clinical efforts because family members, not the person with the addiction, typically initiate contact with treatment providers.

Psychoeducation can help to start the change process. For example, clinicians can engage family members, providing them with information about addictive disorders and describing the continuum of associated problems. This activity might not include the patient, because he or she might not be very interested in treatment. Family members should be instructed to review the educational materials and take care of themselves. They should not share their treatment discussions with the patient, rather they should simply invite the patient to participate in the next session. This circumstance encourages patients to examine their own behavior patterns, risky situations, and impact on others without alienating or coercing them to participate in treatment. Too often, coercion by the family or treater leads to maliciousness, aversion, and ultimately abandonment. Each of these experiences holds significant risk for the already vulnerable person who is struggling with an addictive disorder.

Once patients' curiosity and ambivalent feelings emerge, clinicians should request that they self-monitor the behavior in question (eg, drinking, drugging, gambling) and document any urges toward the object of their interest. This evidence can provide the foundation for future efforts at evaluation and treatment planning. Patients then have the opportunity to compare their perception of their experience and how it changes over time. In addition, they can compare their view with that of others. They also have the opportunity to assess the impact of their behavior on their life objectives. During this part of treatment, patients should also be questioned about what their addiction does *for* them, not just what it is doing *to* them. By exploring patients' perception of the benefits

and advantages of addiction for them, clinicians are in a better position to develop realistic treatment plans that consider alternative behavior patterns that can fulfill as many of the same addiction objectives as possible without having to engage in the addictive behavior. Taken together, these early treatment activities exercise the ambivalence associated with behavior change and gently diminish denial and resistance.⁵⁸

Awareness of Adverse Consequences

As patients begin to recognize addictive behavior as the primary cause of their problems, they begin to consider the possibility of addressing these issues. The major clinical challenge is to address patients' ambivalence about whether they wish to alter their addictive behavior pattern and deal with the associated problems. The primary approach to stimulating the desire to change is to acknowledge that addiction provides positive benefits as well as negative consequences. The clinician must acknowledge that modifying the pattern of behavior that caused problems will require relinquishing some current activities. A decision balance exercise that explores the pluses and minuses of maintaining the behavior and the gains and losses of changing is the major vehicle for resolving the ambivalence about the value of curbing addictive behaviors. A seminal event such as ending a relationship, losing a job, or experiencing a health crisis, referred to as a turning point, often marks the patient's decision to change.

Turning Points and an Orientation to Change

Once patients accept the notion that changes are necessary and worthwhile, the major challenge is to help them see the array of recovery alternatives. Making choices is central, and the key treatment activity is planning. Therapists' efforts focus on goal setting and planning for treatment and life changes. Together, the patient and clinicians explore therapeutic options and appropriate action steps, such as the type of treatment setting, program philosophy, level of care, kind and variety of therapeutic modalities, group or individual format, professional profile, and cost. Treatment matching is an important principle. Treatment success is

often linked to honoring the person's preferences and validating the acceptability of the person's choices.

Active Quitting:

Taking Action for Change

When ready to change, the major theme is active learning. The clinical strategy focuses on encouraging patients to initiate a range of new alternative behaviors based on the acquisition of new knowledge, insight, attitudes, and skills. This is the beginning of psychologic detoxification and restoration. Identifying and substituting a different leisure activity for the time spent gambling is an important component of a healthy recovery. The introduction of support fellowships (eg, AA or Gamblers Anonymous) and more involvement in spiritually enriching experiences also can be highly beneficial. However, though clinicians can suggest these support systems, almost any that a recovering person chooses holds potential to be helpful.

Relapse Prevention and Change Maintenance

To achieve enduring treatment goals, the clinical focus must gradually shift to practice the new competencies that will sustain a balanced, healthy lifestyle. Adult learning theory recognizes that developing and mastering new behaviors requires training and repetition. Relapses can and often do occur; because this is a common part of recovery from addictive behavior patterns, clinicians need to pay particular attention to situational risk and negative effect as critical relapse triggers.⁵⁹⁻⁶²

In sum, clinicians have relatively specific tasks at different phases of treatment. For example, during the early stages of treatment, clinicians should raise doubt about the effectiveness of addiction to achieve personal goals. Once patients consider changing, clinicians must exercise ambivalence and stimulate motivation to change by identifying reasons to change and risks of the status quo. Once ready to change, patients will need help choosing the best plan. Once there is an agreed-upon plan, clinicians need to teach the patient skills that support change and prevent relapse. Finally, once a patient has made changes, clinicians must help him or her practice these new behaviors and reframe relapse as an ongoing learning

process.⁶³ Observers often incorrectly think that changes occur in a linear and progressive fashion. In reality, changing addiction is a recursive process with many opportunities to revisit earlier struggles; these turns provide the opportunity to practice the tasks of recovery necessary to grow as a person and rebuild one's life.^{16,47,55}

Considering Treatment Efficacy and Outcomes

Currently, there is limited information about long-term effectiveness with all treatment approaches. Clinicians should evaluate addiction treatment outcomes as they do cancer treatments, using 5-year follow-up rates. Similarly, while recovery is best understood as "one day at a time" by patients, the scientific evaluation of recovery should determine how patients have progressed over a 5-year follow-up period. Anything less than this time frame can be misleading, as treatments can provide short-term gains that do not last. Similarly, short-term gains should not lead to the false belief that all risk of relapse is over. As we have noted, because syndromes are multidimensional, these disorders typically do not respond favorably to a single treatment modality—either during the active change phase of treatment or during the relapse prevention phase.

Conclusion

Treatments for addictions are composed of both common and specific factors. These treatments, which have evolved from a variety of theoretical approaches, can be provided in many different settings. Frequently, outcomes are improved when clinicians combine interventions within a comprehensive treatment plan. The stage-change concept, which helps us to appreciate the natural history of addiction, underscores the importance of matching appropriate interventions with patients based on where they are in the process of addiction and recovery. Future research will clarify issues such as how to best match specific treatments with individual patients in order to enhance long-term outcomes. *PP*

References

1. Narrow WE, Rae DS, Robins LN, Regier DA. Revised prevalence estimates of mental disorders in the United States. *Arch Gen Psychiatry*. 2002;59:115-123.

2. Regier DA, Farmer ME, Rae DS, et al. Comorbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) Study. *JAMA*. 1990;264:2511-2518.
3. Regier DA, Robins LN, eds. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study*. New York, NY: The Free Press; 1991.
4. Kessler RC, Crum RM, Warner LA, Nelson CB, Schulenberg J, Anthony JC. Lifetime co-occurrence of DSM-III-R alcohol abuse and dependence with other psychiatric disorders in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1997;54:313-321.
5. Kessler RC, Nelson CB, McGonagle KA, Edlund MJ, Frank RG, Leaf PJ. The epidemiology of co-occurring addictive and mental disorders: implications for prevention and service utilization. *Am J Orthopsychiatry*. 1996;66:17-31.
6. Rosenblum A, Magura S, Foote J, et al. Treatment intensity and reduction in drug use for cocaine-dependent methadone patients: a dose-response relationship. *J Psychoactive Drugs*. 1995;27:151-159.
7. Maddux JF, Desmond DP. Ten-year follow-up after admission to methadone maintenance. *Am J Drug Alcohol Abuse*. 1992;18:289-303.
8. McClellan AT, Arndt IO, Metzger DS, Woody GE, O'Brien CP. The effects of psychosocial services in substance abuse treatment. *JAMA*. 1993;269:1953-1959.
9. Shaffer HJ, LaSalvia T. Patterns of substance use among methadone maintenance patients: indicators of outcome. *J Subst Abuse Treat*. 1992;9:143-147.
10. National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction. Effective medical treatment of opiate addiction. *JAMA*. 1998;280:1936-1943.
11. Gibson DR, Flynn NM, McCarthy JJ. Effectiveness of methadone treatment in reducing HIV risk behavior and HIV seroconversion among injecting drug users. *AIDS*. 1999;13:1807-1818.
12. Serpelloni G, Carrieri MP, Rezza G, Morganti S, Gomma M, Binkin N. Methadone treatment as a determinant of HIV risk reduction among injecting drug users: a nested case-control study. *AIDS Care*. 1994;6:215-220.
13. Siddiqui NS, Brown LS Jr, Meyer TJ, Gonzalez V. Decline in HIV-1 seroprevalence and low seroconversion rate among injecting drug users at a methadone maintenance program in New York City. *J Psychoactive Drugs*. 1993;25:245-250.
14. Prochaska JO, DiClemente CC, Norcross JC. In search of how people change: applications to addictive behaviors. *Am Psychol*. 1992;47:1102-1114.
15. Prochaska JO. A stage paradigm for integrating clinical and public health approaches to smoking cessation. *Addict Behav*. 1996;21:721-732.
16. Shaffer HJ. The psychology of stage change. In: Lowinson JH, Ruiz P, Millman RB, Langrod JG, eds. *Substance Abuse: A Comprehensive Textbook*. 3rd ed. Baltimore, MD: Williams & Wilkins; 1997:100-106.
17. Cunningham JA, Sobell LC, Sobell MB, Kapur G. Resolution from alcohol problems with and without treatment: reasons for change. *J Subst Abuse*. 1995;7:365-372.
18. Schachter S. Recidivism and self-cure of smoking and obesity. *Am Psychol*. 1982;37:436-444.
19. Shaffer HJ, Jones SB. *Quitting Cocaine: The Struggle Against Impulse*. Lexington, MA: Lexington Books; 1989.
20. Sobell LC, Cunningham JA, Sobell MB. Recovery from alcohol problems with and without treatment: prevalence in two population surveys. *Am J Public Health*. 1996;86:966-972.
21. Sobell LC, Ellingstad TP, Sobell MB. Natural recovery from alcohol and drug problems: methodological review of the research with suggestions for future directions. *Addiction*. 2000;95:749-764.
22. Waldorf D, Biernacki P. Natural recovery from opiate addiction: a review of the incidence literature. *J Drug Issues*. 1979;9:282-289.

23. Waldorf D, Biernacki P. The natural recovery from opiate addiction: some preliminary findings. *J Drug Issues*. 1981;9:61-76.
24. Winick C. Maturing out of narcotic addiction. *United Nations Bull Narc*. 1962;14:1-7.
25. Waldorf D, Reinerman C, Murphy S. *Cocaine Changes: The Experience of Using and Quitting*. Philadelphia, Penn: Temple University Press; 1991.
26. Waldorf D. Natural recovery from opiate addiction: some social-psychological processes of untreated recovery. *J Drug Issues*. 1983;13:237-280.
27. Hodgins DC, Wynne H, Makarchuk K. Pathways to recovery from gambling problems: follow-up from a general population survey. *J Gamb Stud*. 1999;15:93-104.
28. Albanese MJ. Assessing and treating comorbid mood and substance use disorders. *Psychiatr Times*. 2001;18:55-58.
29. Albanese MJ, Khantzian EJ, Murphy SL, Green A. Decreased substance use in chronically psychotic patients treated with clozapine [letter]. *Am J Psychiatry*. 1994;151:780-781.
30. Weiss RD, Greenfield SF, Najavits LM, et al. Medication compliance among patients with bipolar disorder and substance use disorder. *J Clin Psychiatry*. 1998;59:172-174.
31. Albanese MJ, Graham-Brown A, Vanelli MR, Welch RJ. Risperidone augmentation of clozapine. Paper presented at: The 6th Annual Research Day of the Consolidated Department of Psychiatry at Harvard Medical School; April 22, 1998; Boston, MA.
32. Albanese MJ. Safety and efficacy of risperidone in substance abusers with psychosis. *Am J Addict*. 2001;10:190-191.
33. Albanese MJ, Clodfelter RC, Khantzian EJ. Divalproex sodium in substance abusers with mood disorder. *J Clin Psychiatry*. 2000;61:916-921.
34. Pettinati HM. The use of selective serotonin reuptake inhibitors in treating alcoholic subtypes. *J Clin Psychiatry*. 2001;62(suppl 20):26-31.
35. Naranjo CA, Knoke DM, Bremner KE. Variations in response to citalopram in men and women with alcohol dependence. *J Psychiatry Neurosci*. 2000;25:269-275.
36. Khantzian EJ, Halliday KS, McAuliffe WE. *Addiction and the Vulnerable Self: Modified Dynamic Group Therapy for Substance Abusers*. New York, NY: Guilford; 1990.
37. Project Match Research Group. Matching alcoholism treatment to client heterogeneity: project MATCH posttreatment drinking outcomes. *J Studies Alcohol*. 1997;58:7-29:12.
38. Hubble ML, Duncan BL, Miller SD. *The Heart & Soul of Change: What Works in Therapy*. Washington, DC: American Psychological Association; 1999.
39. Frank JD. *Persuasion & Healing*. Baltimore, MD: The Johns Hopkins University Press; 1961.
40. Havens L. *A Safe Place: Laying the Groundwork of Psychotherapy*. Cambridge, MA: Harvard University Press; 1989.
41. Imhof J, Hirsch R, Terenzi RE. Countertransference and attitudinal considerations in the treatment of drug abuse and addiction. *J Subst Abuse Treat*. 1984;1:21-30.
42. Maltzberger JT, Buie D. Countertransference hate in the treatment of suicidal patients. *Arch Gen Psychiatry*. 1974;30:625-633.
43. Polanyi M. *The Tacit Dimension*. New York, NY: Doubleday; 1967.
44. Schon DA. *The Reflective Practitioner*. New York, NY: Basic Books; 1983.
45. Shaffer HJ. Denial, ambivalence and countertransference hate. In: Levin JD, Weiss R, eds. *Alcoholism: Dynamics and Treatment*. Northdale, NJ: Jason Aronson; 1994:421-437.
46. Shaffer HJ, Robbins M. Manufacturing multiple meanings of addiction: time-limited realities. *Contemp Fam Ther*. 1991;13:387-404.
47. Shaffer HJ, Robbins M. Psychotherapy for addictive behavior: a stage-change approach to meaning making. In: Washton AM, ed. *Psychotherapy and Substance Abuse: A Practitioner's Handbook*. New York, NY: Guilford; 1995:103-123.
48. Miller WR, Brown JM, Simpson TL, et al. What works? A methodological analysis of the alcohol treatment outcome literature. In: Hester RK, Miller WR, eds. *Handbook of Alcoholism Treatment Approaches: Effective Alternatives*. 2nd ed. Boston, MA: Allyn & Bacon; 1995:12-44.
49. Miller WR. Rediscovering fire: small interventions, large effects. *Psychol Addict Behav*. 2000;14:6-18.
50. Weiner IB. *Principles of Psychotherapy*. New York, NY: John Wiley & Sons; 1975:244.
51. Crowley JW, ed. *The Drunkard's Progress: Narratives of Addiction, Despair, and Recovery*. Baltimore, MD: The John Hopkins University Press; 1999.
52. Prochaska JO, Norcross JC, DiClemente CC. *Changing for Good: A Revolutionary Six-Stage Program for Overcoming Bad Habits and Moving Your Life Positively Forward*. New York, NY: Avon; 1994.
53. Quinn JP. *Fools of Fortune*. Chicago, IL: The Anti-Gambling Association; 1891.
54. Rollnick S, Morgan M. Motivational interviewing: increasing readiness for change. In: Washton AM, ed. *Psychotherapy and Substance Abuse: A Practitioner's Handbook*. New York, NY: Guilford; 1995:179-191.
55. Shaffer HJ. The psychology of stage change: the transition from addiction to recovery. In: Lowinson JH, Ruiz P, Millman RB, Langrod JG, eds. *Substance Abuse: A Comprehensive Textbook*. 2nd ed. Baltimore, MD: Williams & Wilkins; 1992:100-105.
56. Miller WR, Rollnick S, eds. *Motivational Interviewing: Preparing People to Change Addictive Behavior*. New York, NY: Guilford; 1991.
57. Miller WR. Motivational interviewing: research, practice, and puzzles. *Addict Behav*. 1996;21:835-842.
58. Shaffer HJ, Simoneau G. Reducing resistance and denial by exercising ambivalence during the treatment of addiction. *J Subst Abuse Treat*. 2001;20:99-105.
59. Marlatt GA, Gordon J, eds. *Relapse Prevention*. New York, NY: Guilford; 1985.
60. McAuliffe WE, Ch'ien JMN. Recovery training and self help: a relapse-prevention program for treated opiate addicts. *J Subst Abuse Treat*. 1986;3:9-20.
61. Vaillant GE. What can long-term follow-up teach us about relapse and prevention of relapse in addiction. *Br J Addict*. 1988;83:1147-1157.
62. Svanum S, Mcadoo WG. Predicting rapid relapse following treatment for chemical dependence: a matched-subjects design. *J Consult Clin Psychol*. 1989;57:222-226.
63. Brosky G. Update on methods for patient behavior change. *Can J CME*. 2001;3:135-145.