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ORIGINAL CONTRIBUTION

Treatment Implications of Chemical Dependency Models: An Integrative Approach

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Abstract — *Five basic models of chemical dependency and their treatment implications are described. The moral model, although disdained by most treatment professionals, actually finds expression in over half the steps of Alcoholics Anonymous. The learning model, albeit the center of the controlled drinking controversy, is also utilized by most abstinence-oriented programs. The disease model, which enjoys current popularity, sometimes ignores the presence of coexisting disorders. The self-medication model, which tends to regard chemical dependency as a symptom, can draw needed attention to coexisting disorders. The social model emphasizes the importance of environmental and interpersonal influences in treatment, although the substance abuser may endorse it as a justification to adopt a victim's role. A sixth model, the dual diagnosis model, is presented as an example of how two of the basic models can be integrated both to expand the treatment focus and to increase treatment leverage. Whereas the five basic models are characterized by a singular, organizing treatment focus, the dual diagnosis model is viewed as an example of a* multifocused, integrative *model. It is concluded that effective therapy requires (a) flexibility in combining elements of different models in order to individualize treatment plans for substance abusers, and (b) careful assessment of both the therapist's and the substance abuser's beliefs about treatment models in order to insure a treatment match based on a healthy alliance.*

Keywords — Substance abuse, alcoholism, treatment models, treatment matching, dual diagnosis.

INTRODUCTION

THE PURPOSE OF THIS PAPER is to describe and examine various models of chemical dependency and their implications for treatment. A model provides a means to conceptualize chemical dependency for the purposes of enhancing our understanding of the problem and of suggesting solutions to the problem. A model is a representation of reality. The validity of a treatment model, the extent to which it accurately represents reality, can best be judged in terms of its usefulness in clinical work.

Models of chemical dependency can be divided, for the purpose of classification, into *basic* and *integrative* models (Table 1). The five basic models are the moral model, the learning model, the disease model, the self-medication model, and the social model. Each of these basic models will be described in terms of the assumptions they make about the etiology of chemical depen-

TABLE 1
Classification of Chemical Dependency Treatment Models

Basic Models (Single Focus)	Integrative Models (Multifocus)
Moral	Alcoholics Anonymous
Learning	Dual diagnosis
Disease	Biopsychosocial
Self-medication	Multivariant
Social	

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dency and the goals and strategies they suggest for treatment. The advantages and disadvantages of each model for treatment are also examined (Table 2).

Integrative models combine or integrate elements from the basic models. Alcoholics Anonymous, the dual diagnosis model, and the biopsychosocial model are all examples of integrative models. In contrast to the basic models, which concentrate primarily on a single treatment focus, integrative models are *multifocused*. For example, whereas the disease model focuses primarily on substance abuse and the self-medication model focuses primarily on underlying psychopathology, the dual diagnosis model focuses on both substance abuse and coexisting psychopathology.

Other classifications of chemical dependency models have been described (Brickman, Rabinowitz, Karuza, Coates, Cohn, & Kidder, 1982; Kissin, 1977; Ludwig, 1988; Marlatt, 1985a). In this paper, however, the purpose is not to advocate for one particular model (Brickman et al., 1982; Marlatt, 1985a), nor to describe only models of alcoholism (Donovan, 1986; Kissin, 1977; Ludwig, 1988, chap. 1). Rather, our descriptions are designed to help practitioners take advantage of the best elements of each model, while avoiding the disadvantages of each, in order to optimize treatment of substance abuse in general.

The major thesis of this paper is that clinical work is enhanced by being flexible enough to integrate or combine the most relevant elements of each model in order to individualize treatment for substance abuse. Conversely stated, clinical work may be compromised by rigid adherence to any one model at all times for all patients, because each of the models has distinct disadvantages as well as advantages when applied to treatment. Different patients may benefit by emphasizing one model over another (Kissin, 1977). Likewise, the same patient may benefit by emphasizing different models during different phases of treatment. Thus, the critical question for both treatment providers and researchers is how to match substance abusers during their treatment course to the various models in order to maximize treatment outcome (Glaser, 1980; Marlatt, 1988). The matching process will be seen to require an assessment of both the substance abuser's and the therapist's beliefs about treatment models. Moreover, proper assessment requires the clinician to view the substance abuser from the various perspectives offered by the various models (Shaffer, 1986a).

We will first discuss the five basic models. We will then present the dual diagnosis model, both as an example of an integrative model and as an example of treatment matching on the basis of beliefs. Finally, we

TABLE 2
Basic Models of Chemical Dependency

	Model				
	Moral	Learning	Disease	Self-Medication	Social
Etiology	Moral weakness; lack of willpower; bad or evil character	Learned, maladaptive habits	Idiopathic; biological factors important	Symptom of another primary mental disorder	Environmental influences
Treatment goal	Increased willpower against evil temptations	Self-control via new learning	Complete abstinence to arrest disease progression	Improved mental functioning	Improved social functioning
Treatment strategy	Religious counseling or conversion; punishment	Teaching of new coping skills and cognitive restructuring	Focus on chemical dependency as primary problem; reinforce identity as recovering alcoholic/addict	Psychotherapy and/or pharmacotherapy of causative mental disorder	Altering of environment or coping responses to it
Advantages	Moral inventory and amends beneficial; holds users responsible for consequences; gauges countertransference	Neither blaming nor punitive; emphasizes new learning; holds users responsible for new learning	Neither blaming nor punitive; disease implies treatment-seeking as appropriate response; does not focus on hypothetical etiologies	Neither blaming nor punitive; emphasizes importance of diagnosing and treating coexisting mental disorders	Emphasizes need for social supports and skills; easily integrated into other models
Disadvantages	Blaming and punitive; willpower ineffective	Undue emphasis on control	Underestimates coexisting mental disorders; cannot explain return to asymptomatic drinking	Implies that treatment of mental disorder is sufficient	Facilitates projection of blame; implies treatment of social problems is sufficient

will describe other integrative models of chemical dependency.

MORAL MODEL

We start with the moral model of chemical dependency because, historically, it is the oldest. A recent Supreme Court decision in which alcoholism was interpreted as resulting from "willful misconduct," however, demonstrates that the moral model is still current and operative (Seessel, 1988). The characteristics of the moral model are presented in Table 2. In this model, chemical dependency results from a moral weakness or lack of willpower. The substance abuser is viewed as someone with a weak, bad or evil character. Accordingly, the goal of rehabilitation is to increase one's willpower in order to resist the evil temptation of substances. The user is expected to change from evil to good and from weak to strong. The strategies for change include both a "positive" reliance on God through religious counseling or conversion and a "negative" avoidance of punishment through criminal sanctions or damnation.

The major treatment disadvantage of the moral model is that it places the helping professional in an antagonist relationship with the substance abuser by adopting a judgemental stance that is blaming and punitive. The substance abuser is at fault in this model. If he or she does not change, then punishment is deserved. These attitudes are generally countertherapeutic. The other major disadvantage for treatment is that willpower for many, if not most substance abusers seen in treatment settings, is ineffective against chemical dependency. Although we are all aware of histories in which alcoholic persons made a decision to quit and did so on their own, most individuals seen in treatment centers have already tried willpower with little success. A treatment strategy that depends solely on willpower, therefore, sets the stage for failure and decreases a substance abuser's sense of self-esteem.

The moral model is often embraced by patients themselves who enter treatment feeling that they are bad and weak-willed. As a result, some patients ask for our help to make them strong enough to resist substances. Once they feel strong enough, however, they can easily reason that they are strong enough to use substances again. A treatment goal of strength, therefore, can paradoxically lead to relapse. This is why Alcoholics Anonymous (A.A.) and other twelve step programs stress the concept of powerlessness. Nevertheless, it is important to determine which model the patient believes in, a point to which we will return during our discussion of treatment matching.

Despite the disadvantages of the moral model, it correctly focuses attention on the importance of moral concerns during the process of recovery for some substance abusers. A.A., for example, has long recognized that making a moral inventory of wrongdoing, coupled with making amends when possible, can be beneficial for recovery (Alcoholics Anonymous, 1976). In fact, steps 4 through 10, constituting over half of A.A.'s twelve steps, are devoted to moral concerns, even though A.A. ostensibly subscribes to the disease model of alcoholism. Three important points can be made here. First, A.A. is an example of an *integrative approach*, by combining elements of both the moral and disease models. Second, A.A. does not emphasize the moral elements of its program until step 4, exemplifying the principle of emphasizing different models during different phases of recovery. Third, A.A. and other twelve step programs actually refer to themselves as spiritual, rather than moral, programs.

However, the spiritual model can be considered a variant of the moral model. It attributes chemical dependency to the substance abuser's misalliance with God and the universe. The substance abuser is viewed as someone who is alienated from God, stubbornly self-willed, and who attempts to dominate and control the outside world. Accordingly, the goal of treatment is to help substance abusers develop their spirituality by discovering and following God's will and by seeking a more "complementary" relationship with the universe (Brown, 1985).

Another treatment advantage of the moral model is that it holds people responsible for the consequences of their substance use. Although blaming people for having chemical dependency is seen as a disadvantage, holding people responsible for consequences is useful in overcoming denial and increasing motivation for change. Protecting substance abusers from the consequences of their use often "enables" them to continue using.

Finally, the moral model can be used to advantage by clinicians in order to gauge the status of their treatment relationships with substance abusers and even to screen for psychopathology. We have all had the experience of finding ourselves in an antagonistic relationship with a substance abuser, feeling angry, blaming him or her for lack of motivation, and pushing for an administrative discharge from the treatment program. This experience should serve as a signal that we are operating under the moral model, regardless of our consciously espoused treatment model. The wise clinician will then ask why he or she has shifted to the moral model. One reason may be diagnosis. Substance abusers with an antisocial personality disorder, for example, really do have "bad characters" in addition to chemical dependency. We naturally respond to our perceptions of badness with moral indignation. Thus, our countertransference to the antisocial character may manifest by unconsciously shifting to the moral model in terms of our treatment responses. By monitoring our treatment responses for their congruence with the various models of chemical dependency, we can gain important diagnostic information and be vig-

ilant to our countertransference. Once aware of our countertransference, a psychiatric consultation for the substance abuser can be obtained and treatment more specific for the antisocial personality, if present, can be recommended (Woody, McLellan, Luborsky, & O'Brien, 1985).

LEARNING MODEL

According to the learning model, chemical dependency and other addictive behaviors result from the learning of maladaptive habits (Marlatt, 1985a). The substance abuser is viewed as someone who learned "bad" habits through no particular fault of his or her own. Accordingly, the general goal of therapy is to teach new behaviors and cognitions that allow old habits to be *controlled* by new learning (see Table 2). Whether the specific goal of therapy is "controlled drinking" (to use alcohol as the example) or complete abstinence, the emphasis is on *self-control*. In this model, a "relapse" can be thought of as a loss of self-control resulting in harmful use of substances. The user is expected to change from a miseducated creature of maladaptive habits to a reeducated individual capable of self-control. The major strategy for change is education, including the teaching of new coping skills and cognitive restructuring (Marlatt, 1985a).

The salient advantages of the learning model are that it is neither punitive nor blaming for the development of maladaptive habits and that it stresses new learning and education as a treatment strategy. We should state our belief, however, that all legitimate treatment approaches value new learning, whether in the form of lectures, skills training, conditioning techniques, or psychotherapy. Another advantage of the learning model, like the moral model, is that it holds people responsible for obtaining and implementing the new learning (Marlatt, 1985a).

Its prominent disadvantage is its emphasis on *control*. This disadvantage, from our point of view, is not related to the controversy surrounding controlled drinking (Miller, 1983), because the learning model allows flexibility in choosing a treatment goal of either complete abstinence or controlled substance use. However, the model's emphasis on control ignores (a) the complex and hidden meanings this word can have for the substance abuser and (b) the therapeutic value for many substance abusers in admitting their loss of control. When a substance abuser and therapist agree that the goal of treatment will be self-control, even for the purpose of abstinence, the substance abuser may harbor a hidden goal based on the fantasy that one day the use of chemicals will be possible again once self-control is established. In this way, a treatment agreement for self-control may foster *collusion* with the substance abuser's denial of the need for abstinence. Alternatively, some substance abusers recover very well by internalizing the beliefs that they cannot control their chemical use and, therefore, that they cannot use chemicals. (The belief in loss of control is also stated in step 1 of A.A. as "We admitted we were powerless over alcohol and that our lives had become unmanageable.") Therapists need to be aware that for some substance abusers, the concept of control is paradoxical; that is, in order to gain control, they must admit their loss of control (Brown, 1985). Therapists who can appreciate this paradox of control are in the best position to integrate, as needed, the models that emphasize loss of control with models that emphasize self-control. Indeed, the practical techniques of relapse prevention, which are based on a learning model of self-control (Marlatt, 1985a), are paradoxically utilized by many disease model programs that are based on the concepts of powerlessness and loss of control. We will now discuss the disease model in more detail.

DISEASE MODEL

The disease model of alcoholism and other chemical dependencies is probably the dominant model among specialized treatment providers at present. Alcoholism as a disease, for example, has been officially endorsed by the American Medical Association, the American Psychiatric Association, the National Association of Social Workers, the World Health Organization, the American Public Health Association, and the National Council on Alcoholism. According to this model, the etiology of chemical dependency is unknown, but genetic and other biological factors are considered important (Schuckit, 1985). The substance abuser is viewed as someone who is ill or unhealthy, not because of an underlying mental disorder, but because of the disease of chemical dependency itself. The *sine qua non* of the disease is considered to be an irreversible *loss of control* over alcohol (Alcoholics Anonymous, 1976) or other substances. Once present, the disease is regarded as always present, because there is no known cure. Accordingly, the goal of treatment is complete abstinence (see Table 2). Without complete abstinence, the disease is regarded as progressive and often fatal. The user is expected to change from using to not using, from ill to healthy, and from unrecovered to recovering. The major treatment strategy is to focus on chemical dependency as the primary problem, rather than on lack of willpower, lack of self-control, or lack of mental health. The substance abuser is guided to develop a positive identification as a recovering alcoholic or addict who is powerless over substances. In addition, most disease model programs (as with the learning model) teach new behaviors to substitute for the substance use (such as going to A.A.), while family education and therapy are directed to eliminate "enabling" by significant others.

The advantages of the disease model are that it is

neither punitive nor blaming and that it implies the importance of seeking treatment and help, as one would with any other disease. Guilt is alleviated because people are not held responsible for developing chemical dependency any more than for developing high blood pressure or diabetes. Blame can be directed towards the disease rather than towards the person with the disease. On the other hand, having a disease implies a responsibility for taking care of oneself by seeking treatment. In contrast to the learning model, then, the disease model emphasizes *self-care* rather than *self-control*. Another advantage is its clear focus on the chemical dependency as a problem to be treated in its own right. This focus prevents the dangers inherent in other models that focus primarily on postulated etiologies, which we will explore further with the self-medication and social models.

One disadvantage of the disease model is that it fails to account for those alcoholics who actually return to asymptomatic drinking (Shaffer, 1986b). The proportion of alcoholics who return to asymptomatic drinking has been estimated on the basis of a number of studies to be about 5-15% (Miller, 1983; Vaillant, 1983). These alcoholics tended to be less dependent on alcohol in terms of symptoms and duration, younger in age, and did not regard themselves as having a disease (Miller, 1983; Vaillant, 1983). Miller (1983) has even argued that these alcoholics were more likely to relapse when exposed to abstinence-oriented disease models, although only one study is cited to support that conclusion (Polich, Armor, & Braiker, 1981). Certainly, more research is needed to determine which alcoholics do best with which treatments because rigid adherence to one model for all alcoholics may be detrimental to some.

The other major disadvantage of the disease model is that some of its proponents fail to appreciate the possible independence of coexisting psychopathology. Many if not most alcoholics, for example, experience depressive symptoms during the first year of abstinence (Schuckit, 1986). Brown (1985) has concluded that "the high percentage of respondents reporting depression suggests that it may be a necessary part of recovery" (p. 51). Unfortunately, the tendency to normalize depressive symptoms during early recovery by attributing them to the disease of alcoholism may inhibit efforts to diagnose and treat a coexisting "major depression" as defined by DSM-III-R (American Psychiatric Association, 1987). From our point of view, waiting through the first year of alcoholism treatment to allow symptoms of major depression to subside may work, but is unnecessarily cruel and potentially dangerous. The reason that it may work is because untreated major depressive episodes typically last about 6 months to 1 year (Kaplan & Sadock, 1988, p. 295). The reason that it is cruel is because major depression is responsive to appropriate pharmacotherapy within 4-6 weeks (Brotman, Falk, & Gelenberg, 1987). Regarding dangerousness, major depression is an unusually painful psychic state that can cause significant psychosocial disruption, if not relapse and suicide.

In contrast to the disease model, which tends to minimize coexisting psychopathology such as depression, the self-medication model primarily focuses on the psychopathology of substance abusers, as we discuss next.

SELF-MEDICATION MODEL

According to this model, chemical dependency occurs either as a symptom of another primary mental disorder or as a coping mechanism for deficits in psychological structure or functioning (Khantzian, 1985). The substance abuser is viewed as someone who uses chemicals as a way to alleviate the painful symptoms of another mental disorder such as depression, or as a way to fill the void left by deficiencies in psychological structure or functioning. Consequently, the goal of treatment is to improve mental functioning. The user is expected to change from mentally ill to psychologically healthy. The strategies for change include psychotherapy and pharmacotherapy of the underlying mental disorder (see Table 2).

Like the learning and disease models, the self-medication model is neither punitive nor blaming. Another major advantage is that it stresses the importance of diagnosing and treating coexisting psychiatric problems when present. The importance of this is highlighted by treatment outcome studies that reveal different (usually worse) prognoses for addicts with additional psychopathology who enter traditional chemical dependency treatment programs (McLellan, Luborsky, Woody, O'Brien, & Druley, 1983; Rounsaville, Dolinsky, Babor, & Meyer, 1987).

The major disadvantage of this model stems from its emphasis on psychopathology as etiology. Although retrospective studies provide support for the idea that psychopathology causes chemical dependency, prospective studies do not (Vaillant, 1983). In many cases, psychopathology is the result, not the cause, of chemical dependency. In other cases, it is difficult to determine what is cause and what is effect when chemical dependency coexists with other psychopathology (Schuckit, 1986). Nevertheless, psychopathology may still be the cause of chemical dependency in some individuals. However, it does not necessarily follow that treating the cause in these individuals will provide sufficient treatment for the chemical dependency. This is because perpetuating factors of chemical dependency may develop in addition to the psychopathology that initiated the dependency (Brower, 1988). Optimal treatment, therefore, requires attention to both the initiating and perpetuating factors of substance abuse.

Unfortunately, the model implies that treatment of initiating psychiatric problems will provide sufficient treatment for chemical dependency. Therapists and substance abusers alike can easily believe that once the underlying cause is discovered and treated, then the problem with chemicals will disappear. For the substance abuser, postulating a treatable etiology allows for the hope that chemical use will one day be possible once the underlying cause is treated.

For the therapist, focusing treatment on underlying psychological factors can facilitate collusion with the substance abuser's denial of chemical dependency. The problem of colluding with denial can be highlighted by examining the various configurations of denial commonly encountered in substance abusers (Table 3). The four configurations listed depend on whether the denial is directed towards the chemical dependency, towards associated problems, towards both, or neither. Substance abusers who are in *complete denial* recognize neither their chemical dependency nor their other problems. They often have character disorders whose symptoms are ego-syntonic and disturbing to others but not themselves. They tend not to seek treatment unless forced by external pressures. Through the use of projection, they generally see others as having the problem rather than themselves. Substance abusers without character disorders may also adopt this configuration at times, especially when feeling threatened. Clearly, this configuration is difficult to treat and has resulted in the commonly heard clinical imperative to "break through the denial."

However, the other extreme is represented by those substance abusers who present in *no denial*. These substance abusers are often suicidal because they are painfully aware of their chemical dependency, of the many relapses, of their depression and shame, of the many conflicts—about work or unemployment, with family, with the law—and of the medical sequelae of their chemical dependency. Despite the clinical imperative to "break through" denial, we do not recommend this configuration because substance abusers are at high risk for completed suicide, especially when feeling the full impact of their interpersonal losses and conflicts (Murphy, 1988).

It is the configuration of *partial denial, type 1* that poses the greatest challenge to the self-medication model (and to the social model, discussed below). These substance abusers have denial for their chemical dependency but not for their other problems. Accordingly, they may seek treatment for their other problems such as depression, stress on the job, or interpersonal conflicts. If in the course of their evaluation or treatment, the therapist becomes aware of their harmful chemical use but adheres to the self-medication model, then collusion with the substance abuser's denial could occur. By covert agreement, the substance abuser and therapist will exclude the chemical dependency as an important focus of treatment. In effect, the substance abuser will be supported for focusing on the other problems, and the chemical use, if it is explored at all, will be interpreted as a coping mechanism. The disadvantage is that the substance abuser, significant others, and therapist will all have the illusion of treatment while the substance abuse continues.

The preferable configuration, in our opinion, at least for the initial stages of treatment, is the configuration of *partial denial, type 2*. In this configuration, the substance abuser is encouraged to focus on the chemical dependency while denying or minimizing the significance of other problems. Rather than breaking through or eliminating denial, the therapist acts to redirect the denial away from the chemical dependency and towards the other problems (Wallace, 1978). When appropriate, the other problems can be interpreted as consequences of the chemical dependency. In addition, the substance abuser is presented with the rationale that the other problems are more likely to improve if the chemical dependency is treated first and that a period of abstinence is required in order to assess better the other problems.

SOCIAL MODEL

In this model, chemical dependency results from environmental, cultural, social, peer, or family influences (Beigel & Ghertner, 1977). The substance abuser is viewed as a product of external forces such as poverty, drug availability, peer pressure, and family dysfunction. Accordingly, the goal of treatment is to

TABLE 3
Configurations of Denial in Substance Abusers

Configuration	Chemical Dependency	Other Problems
Complete denial	I am not an alcoholic or addict	I have no other problems
No denial	I am an alcoholic and/or addict	I have all these other problems
Partial denial (type 1)	I am not an alcoholic or addict	It's just that I have all these other problems
Partial denial (type 2)	I am an alcoholic and/or addict	All my other problems are related to my substance use

improve the social functioning of substance abusers by altering either their social environment or their coping responses to environmental stresses (see Table 2). In other words, users are expected to change either their environments or their coping responses. The strategies for changing the environment include family or couples therapy, attendance at self-help groups where one is surrounded by nonusers, residential treatment, and avoidance of stressful environments where substances are readily available. The strategies for changing substance abusers' coping responses include group therapy, interpersonal therapy (Rounsaville, Gawin, & Kleber, 1985), social skills or assertiveness training, and stress management.

The major advantages of this model are its emphases on interpersonal functioning, social supports, environmental stressors, social pressures, and cultural factors as critical elements to address in treatment. The importance of addressing interpersonal functioning is underscored by data indicating that over one-half of alcoholic relapses are attributable to interpersonal conflicts (Marlatt, 1985b). Treatment interventions for alcoholics that are directed towards increasing social skills or environmental support have been shown to produce better outcomes 6–12 months after treatment (Eriksen, Bjornstad, & Gotestam, 1986; Page & Badgett, 1984). In general, treatment studies have consistently revealed better outcomes for alcoholics who are more socially stable, although the effect is strongest in short-term studies (Vaillant, 1983).

Cultures that introduce children to the ritualized use of low-proof alcohol during meals with others, discourage drinking at other times, and discourage drunkenness have lower rates of alcoholism (Vaillant, 1983). In short, cultures that teach their children how to drink responsibly have lower rates of alcoholism, a conclusion which is also consistent with the learning model. While this conclusion has greater ramifications for primary prevention than for treatment of alcoholism, other cultural factors such as ethnicity and the socialization of women may have important implications for those entering treatment. Treatment programs which are "culturally sensitive" to ethnicity and to women's social roles may produce better outcomes for specific ethnic groups and for women, although treatment outcome studies that specifically address this issue are unfortunately lacking (Amaro, Beckman, & Mays, 1987; Reed, 1987).

Another advantage of the social model is that it is readily compatible with, and easily integrated into, other models. We will give three examples. First, the learning model encourages both the enlistment of social support during treatment (Marlatt, 1985c) and the teaching of alternative coping responses to environmental stresses and interpersonal conflicts (Marlatt, 1985a). Indeed, the learning model is sometimes referred to as the social-learning model, because learning describes a process that occurs in an environmental and interpersonal context. In other words, people learn from their experiences with their environment and with other people. Second, the self-medication model conceptualizes substance abuse as a way of coping with psychological deficits resulting from frustrating and damaging relationships during early development (Khantzian, 1985). In this model, individual psychodynamic psychotherapy is viewed as a primary treatment (Khantzian, 1984) that focuses on relationships with other people in terms of the transference relationships that develop with the therapist (Kohut, 1971; Schiffer, 1988). Third, many proponents of the disease model view the entire family as both affected by the disease and suffering from the parallel "disease" of codependence (Cermak, 1986). Treatment is aimed at helping the family embark on its own recovery. Thus, most of the other models incorporate the social model to some extent in their treatment approaches, and they also regard improved social functioning as an important measure of successful treatment outcome. Conversely, we see a disadvantage in using the social model as an exclusive treatment mode because the etiology of substance abuse is multifactorial, implying a need for multiple treatment strategies (Donovan, 1986; Kissin, 1977).

The major treatment disadvantage of the social model is that it may facilitate projection of blame onto others and the environment. The substance abuser may come to feel victimized by others or by circumstances that do not seem changeable and thus renounce responsibility for solutions. Substance abusers who see themselves as victims require the therapist's empathic guidance towards taking an active role in changing their environment or their coping responses to it. The substance abuser is similarly guided by the Serenity Prayer of A.A. which encourages each person "to accept the things I cannot change," by learning to cope with them, and "to change the things I can."

A related disadvantage of the social model occurs when the therapist focuses exclusively on social problems, while minimizing the chemical dependency itself. Substance abusers, for example, may seek treatment for problems with their marriage or job. The therapist's questions about substance use during early interviews may be met with statements such as "I drink because my job is stressful" or "You would use drugs too if you were married to my spouse." Such statements represent rationalizations or projections that are expressed in the form of beliefs in the social model. The substance abuser with these complaints may tempt the inexperienced therapist, who also endorses the social model, to focus on the job or marital problems, while mutually denying the importance of the substance abuse problem. This disadvantage was described above in terms of the *type 1 partial denial* configuration. A clinical approach to avoiding this disadvantage

is provided below in our discussion of the dual diagnosis model.

DUAL DIAGNOSIS MODEL

Substance abusers who present with depression or social problems are commonly encountered, as discussed above. Some of these individuals will insist that their depression or other problems should be the focus of treatment, rather than their substance abuse. Their belief is in either the self-medication model or the social model. In order to simplify the following discussion, we will use as an example those substance abusers who complain primarily of depression, while minimizing their substance abuse. These are substance abusers who believe in the self-medication model. Essentially, they state that they use substances because they are depressed. Their treatment will depend on the beliefs of their therapists.

If the therapist also believes in the self-medication model, then treatment will focus primarily on the depression. The potential pitfall here is a *treatment match based on collusion* (see Table 4), in which both the therapist and substance abuser believe in depression as a focus of treatment but mutually deny the importance of substance abuse. By contrast, if the therapist believes in the disease model, then statements such as "I use substances because I am depressed" are interpreted as rationalizations. Substance abusers may become defensive when their use of substances is explored. The therapeutic task is then formulated by the disease model therapist in terms of breaking through the defensiveness and denial. The potential pitfall here is a *mismatch* of beliefs resulting in an antagonistic relationship, instead of an *alliance* in which treatment can occur (Table 4).

The way out of this clinical dilemma is first to assess carefully everyone's beliefs in order to guard against either collusion or a mismatch, both of which are countertherapeutic. Next, the substance abuser is invited into an alliance without collusion by the following intervention: "I agree that you appear depressed and this is certainly a problem for you. We need to address that. It is also true from what you have told me that you have a diagnosis of chemical dependency. We need to address that too and let me tell you why. Any attempt I make to determine the type of depression you have will be confounded by further chemical use. Also, any treatment that I can give you for your depression will be sabotaged by further chemical use. This is because we know that regardless of which came first (the depression or the chemicals) and regardless of why you use, chemicals make depression worse over long periods of time. In short, you have two problems, they both require treatment, and the best way I can treat your depression right now is to give you treatment for chemical dependency. After that treatment is begun, we will be better able to see if other treatments for your depression are needed."

In essence, the substance abuser is invited to believe in the dual diagnosis model (see Table 5) in which the argument about what is the primary problem requiring treatment is replaced by the idea that treatment is required for both problems. In this way, the therapist and substance abuser can build an alliance around a common goal, which is to treat depression, without denying the importance of treating chemical dependency.

Like the self-medication model, the dual diagnosis model views the coexisting mental disorder as a primary problem that may require its own psychotherapeutic or pharmacotherapeutic intervention. This helps to build an alliance with the substance abuser and prevents the minimization of coexisting mental disorders by the therapist. Like the disease model, the dual diagnosis model also views substance abuse as a primary problem requiring its own treatment. This helps to prevent collusion with the substance abuser and insures that the importance of substance abuse treatment will not be overlooked. Properly applied, the dual diagnosis model integrates elements of both the self-medication and disease models in a way that avoids the disadvantages of adhering to only one or the other.

In the dual diagnosis model, substance abuse and other mental disorders can be seen as coexisting without necessarily attributing one etiologically to the other. Both are considered primary disorders that can exacerbate one another. The strategy for treatment is to focus on both disorders, although substance use must first stop in order to diagnose and treat the co-

TABLE 4
Typology of Treatment Matches

Type of Match	Therapist and Substance Abuser	Treatment Effect
Match	Believe in same model	Variable
Collusion	Mutually deny problems that do not fit model	Countertherapeutic
Alliance	All problems addressed over time	Therapeutic
Mismatch	Do not believe in same model	Countertherapeutic unless mismatch is addressed and resolved

TABLE 5
Models of Chemical Dependency and Co-Existing Depression

Model	Primary Disorder	Secondary Disorder	Relationship Between Disorders	Treatment Strategy
Disease model	Chemical dependency	Depression	Depression = withdrawal symptom, response to losses due to chemical use, or physiological response to chemical	Treat chemical dependency, depression will remit
Self-medication model	Depression	Chemical dependency	Chemical dependency = symptom of depression, or coping response to depression and losses associated with depression	Treat depression, chemical dependency will remit
Dual diagnosis model	Both depression and chemical dependency	Neither	Each may exacerbate the other, but neither is a symptom of the other	Treat both

existing mental disorder. If an initial period of abstinence proves to be sufficient treatment for the coexisting mental disorder, then a shift from the dual diagnosis model toward other models can be made, as appropriate.

In this discussion, we have alluded to the value of assessing the respective beliefs of the therapist and the substance abuser regarding treatment models. When both the therapist and substance abuser believe in a common explanatory system that does not deny important problems requiring treatment, then a treatment match based on a healthy alliance has been achieved (Table 4). Obviously, this type of match is preferred, but cannot be expected to occur by accident. Only by carefully monitoring our own beliefs and those of the substance abusers we treat can we insure this type of match. Furthermore, substance abusers may require the use of integrative models in order to establish a therapeutic alliance, as exemplified by this discussion of the dual diagnosis model. In other words, integrative models may provide the optimal clinical strategy for bridging discrepant belief systems between therapists and substance abusers.

OTHER INTEGRATIVE MODELS

Our thesis has been that clinicians need to be flexible enough to integrate the most relevant elements of each model in order both to individualize and to optimize treatment for substance abuse. Our thesis is not new: at least two other authors have detailed what we would refer to as *integrative* treatment models. First, Kissin (1977) suggested that a "multivariant" treatment model for alcoholism, which incorporated elements from other major models, would optimize treatment for individual alcoholics. Our approach, while similar, expands upon his by (a) generalizing beyond alcoholism to substance abuse as a whole, (b) drawing attention to the advantages and treatment utility of the moral model, (c) including the relatively new dual diagnosis model and describing its integrative nature, and (d) emphasizing the potential value of matching substance abusers and therapists in terms of their beliefs about chemical dependency. Second, Donovan (1988) suggested a biopsychosocial model as an integrative model to be used with all addictive behaviors. The biopsychosocial model encourages therapists to consider biological, psychological, and social factors both in assessment and treatment. In this model, treatment of different substance abusers may require varying attention to each of these three domains, depending on the substance abuser's individual characteristics and circumstances. An advantage of the biopsychosocial model is that it facilitates the integration of three very important domains involved in the etiology, maintenance, assessment, and treatment of addictive behaviors. However, while it allows an integration of these three domains, it does not address the integration of the chemical dependency models *per se* that are widely used in clinical practice and that we have described.

Our conceptualization of integrative models has noted three essential characteristics. First, integrative models combine elements of the basic models. Second, integrative models are multifocused, which is to say that the multiple problems of the substance abuser are addressed rather than subjugated to the single focus of each basic model. In actual practice, we believe that the most effective therapists are multifocused regardless of the model they specifically endorse. For example, most disease model therapists incorporate the social model by addressing the family problems in

terms of codependence. By thinking in terms of integrative models, however, therapists can both increase their awareness of what they do already and integrate other basic models into their work as appropriate. Third, integrative models not only allow seemingly discrepant models to be combined, but they also allow therapists and substance abusers with seemingly discrepant beliefs to be matched.

Finally, we note that integration, as we have been using the term, can occur on two complementary levels: the theoretical and the technical. When a disease model therapist, for example, finds it useful to incorporate relapse prevention techniques while disavowing the learning theory from which they came, then the integration is only at the level of combining techniques. This has been called *technical eclecticism* (Beitman, Goldfried, & Norcross, 1989). By contrast, when a new theoretical model is developed, as with the dual diagnosis model, that synthesizes two previously competing models, then true *integration* or *theoretical eclecticism* has occurred. The interested reader is referred to an excellent review by Beitman et al. (1989) for a detailed discussion of these concepts.

CONCLUSION

Five *basic* models (moral, learning, social, self-medication, and disease) of chemical dependency are all in use presently. Each of the basic models has distinct advantages and disadvantages when applied in treatment. It is important for clinicians to be aware of each of the models and to be flexible enough to exploit the advantages of each while avoiding their respective disadvantages. Integrative models, such as A.A. (moral and disease models) and the dual diagnosis approach (self-medication and disease models), can maximize treatment for some patients. Treatment can also be optimized by taking into account both the clinician's and substance abuser's beliefs about chemical dependency, because mismatched beliefs or colluding beliefs can be countertherapeutic. In summary, future research on treatment matching should focus on the use of integrative models to optimize treatment outcome.

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