National Institute on Drug Abuse

Therapy Manuals for Drug Addiction

Manual **1**

A Cognitive-Behavioral Approach: Treating Cocaine Addiction

U.S. Department of Health and Human Services
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THERAPY MANUALS FOR DRUG ADDICTION

A Cognitive-Behavioral Approach: Treating Cocaine Addiction

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Foreword

More than 20 years of research has shown that addiction is clearly treatable. Addiction treatment has been effective in reducing drug use and HIV infection, diminishing the health and social costs that result from addiction, and decreasing criminal behavior. The National Institute on Drug Abuse (NIDA), which supports more than 85 percent of the world's research on drug abuse and addiction, has found that the most effective treatment approaches include both biological and behavioral components.

To ensure that treatment providers apply the most current science-based approaches to their patients, NIDA has supported the development of the "Therapy Manuals for Drug Addiction" series. This series reflects NIDA's commitment to rapidly applying basic findings in real-life settings. The manuals are derived from those used efficaciously in NIDA-supported drug abuse treatment studies. They are intended for use by drug abuse treatment practitioners, mental health professionals, and all others concerned with the treatment of drug addiction.

The manuals present clear, helpful information to aid drug treatment practitioners in providing the best possible care that science has to offer. They describe scientifically supported therapies for addiction and give specific guidance on session content and how to implement these techniques. Of course, there is no substitute for training and supervision, and these manuals may not be applicable to all types of patients nor compatible with all clinical programs or treatment approaches. These manuals should be viewed as a supplement to, but not a replacement for, careful assessment of each patient, appropriate case formulation, ongoing monitoring of clinical status, and clinical judgment.

The therapies presented in this series exemplify the best of what we currently know about treating drug addiction. As our knowledge evolves, new and improved therapies are certain to emerge. We look forward to continuously bringing you the latest scientific findings through manuals and other science-based publications. We welcome your feedback about the usefulness of this manual series and any ideas you have on how it might be improved.

Alan I. Leshner
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Cognitve-Behavioral Therapy: An Overview

Cognitive-behavioral coping skills treatment (CBT) is a short-term, focused approach to helping cocaine-dependent individuals (In this manual, the term cocaine abuser or cocaine-dependent individual is used to refer to individuals who meet DSM-IV criteria for cocaine abuse or dependence.) become abstinent from cocaine and other substances. The underlying assumption is that learning processes play an important role in the development and continuation of cocaine abuse and dependence. These same learning processes can be used to help individuals reduce their drug use.

Very simply put, CBT attempts to help patients recognize, avoid, and cope. That is, RECOGNIZE the situations in which they are most likely to use cocaine, AVOID these situations when appropriate, and COPE more effectively with a range of problems and problematic behaviors associated with substance abuse.

Why CBT?

Several important features of CBT make it particularly promising as a treatment for cocaine abuse and dependence:

- CBT is a short-term, comparatively brief approach well suited to the resource capabilities of most clinical programs.
- CBT has been extensively evaluated in rigorous clinical trials and has solid empirical support as treatment for cocaine abuse. In particular, evidence points to the durability of CBT's effects as well as its effectiveness with subgroups of more severely dependent cocaine abusers (see appendix B).
- CBT is structured, goal-oriented, and focused on the immediate problems faced by cocaine abusers entering treatment who are struggling to control their cocaine use.
- CBT is a flexible, individualized approach that can be adapted to a wide range of patients as well as a variety of settings (inpatient, outpatient) and formats (group, individual).

- CBT is compatible with a range of other treatments the patient may receive, such as pharmacotherapy.
- CBT's broad approach encompasses several important com mon tasks of successful substance abuse treatment.

Components of CBT

CBT has two critical components:

- Functional analysis
- Skills training

Functional Analysis

For each instance of cocaine use during treatment, the therapist and patient do a functional analysis, that is, they identify the patient's thoughts, feelings, and circumstances before and after the cocaine use. Early in treatment, the functional analysis plays a critical role in helping the patient and therapist assess the determinants, or high-risk situations, that are likely to lead to cocaine use and provides insights into some of the reasons the individual may be using cocaine (e.g., to cope with interpersonal difficulties, to experience risk or euphoria not otherwise available in the patient's life). Later in treatment, functional analyses of episodes of cocaine use may identify those situations or states in which the individual still has difficulty coping.

Skills Training

CBT can be thought of as a highly individualized training program that helps cocaine abusers unlearn old habits associated with cocaine abuse and learn or relearn healthier skills and habits. By the time the level of substance use is severe enough to warrant treatment, patients are likely to be using cocaine as their single means of coping with a wide range of interpersonal and intrapersonal problems. This may occur for several reasons:

- The individual may have never learned effective strategies to cope with the challenges and problems of adult life, as when substance use begins during early adolescence.

- Although the individual may have acquired effective strategies at one time, these skills may have decayed through repeated reliance on substance use as a primary means of coping. These patients have essentially forgotten effective strategies because of chronic involvement in a drug-using lifestyle in which the bulk of their time is spent in acquiring, using, and then recovering from the effects of drugs.

- The individual's ability to use effective coping strategies may be

weakened by other problems, such as cocaine abuse with concurrent psychiatric disorders.

Because cocaine abusers are a heterogeneous group and typically come to treatment with a wide range of problems, skills training in CBT is made as broad as possible. The first few sessions focus on skills related to initial control of cocaine use (e.g., identification of high-risk situations, coping with thoughts about cocaine use). Once these basic skills are mastered, training is broadened to include a range of other problems with which the individual may have difficulty coping (e.g., social isolation, unemployment). In addition, to strengthen and broaden the individual's range of coping styles, skills training focuses on both intrapersonal (e.g., coping with craving) and interpersonal (e.g., refusing offers of cocaine) skills. Patients are taught these skills as both specific strategies (applicable in the here and now to control cocaine use) and general strategies that can be applied to a variety of other problems. Thus, CBT is not only geared to helping each patient reduce and eliminate substance use while in treatment, but also to imparting skills that can benefit the patient long after treatment.

Critical Tasks

CBT addresses several critical tasks that are essential to successful substance abuse treatment (Rounsaville and Carroll 1992).

- *Foster the motivation for abstinence*. An important technique used to enhance the patient's motivation to stop cocaine use is to do a decisional analysis which clarifies what the individual stands to lose or gain by continued cocaine use.
- *Teach coping skills*. This is the core of CBT - to help patients recognize the high-risk situations in which they are most likely to use substances and to develop other, more effective means of coping with them.
- *Change reinforcement contingencies*. By the time treatment is sought, many patients spend most of their time acquiring, using, and recovering from cocaine use to the exclusion of other experiences and rewards. In CBT, the focus is on identifying and reducing habits associated with a drug-using lifestyle by substituting more enduring, positive activities and rewards.
- *Foster management of painful affects*. Skills training also focuses on techniques to recognize and cope with urges to use cocaine; this is an excellent model for helping patients learn to tolerate other strong affects such as depression and anger.

- *Improve interpersonal functioning and enhance social supports.* CBT includes training in a number of important interpersonal skills and strategies to help patients expand their social support networks and build enduring, drug-free relationships.

Parameters of CBT

Format

An individual format is preferred for CBT because it allows for better tailoring of treatment to meet the needs of specific patients. Patients receive more attention and are generally more involved in treatment when they have the opportunity to work with and build a relationship with a single therapist over time. Individual treatment affords greater flexibility in scheduling sessions and eliminates the problem of either having to deliver treatment in a "rolling admissions" format or asking patients to wait several weeks until sufficient numbers of patients are recruited to form a group. Also, the comparatively high rates of retention in programs and studies may reflect, in part, particular advantages of individual treatment.

However, a number of researchers and clinicians have emphasized the unique benefits of delivering treatment to substance users in the group format (e.g., universality, peer pressure). It is relatively straightforward to adapt the treatment described in this manual for groups. This generally requires lengthening the sessions to 90 minutes to allow all group members to have an opportunity to comment on their personal experiences in trying out skills, give examples, and participate in role-playing. Treatment will also be more structured in a group format because of the need to present the key ideas and skills in a more didactic, less individualized format.

Length

CBT has been offered in 12 to 16 sessions, usually over 12 weeks. This comparatively brief, short-term treatment is intended to produce initial abstinence and stabilization. In many cases, this is sufficient to bring about sustained improvement for as long as a year after treatment ends. Preliminary data suggest that patients who are able to attain 3 or more weeks of continuous abstinence from cocaine during the 12-week treatment period are generally able to maintain good outcome during the 12 months after treatment ends.

For many patients, however, brief treatment is not sufficient to produce stabilization or lasting improvement. In these cases, CBT is seen as preparation for longer term treatment. Further treatment is recommended directly when the patient requests it or when the patient has not been able to achieve 3 or more weeks of continuous abstinence during the initial treatment.

We are currently evaluating whether additional booster sessions of CBT during the 6 months following the initial treatment phase improves outcome. The maintenance version of CBT focuses on the following:

- Identifying situations, affects, and cognitions that remain problem atic for patients in their efforts to maintain abstinence or which emerge after cessation or reduction of cocaine use.
- Maintaining gains through solidifying the more effective coping skills and strategies the subject has implemented.
- Encouraging patient involvement in activities and relationships that are incompatible with drug use. Rather than introducing new material or skills, the maintenance version of CBT focuses on broadening and mastering the skills to which the patient was exposed during the initial phase of treatment.

Setting

Treatment is usually delivered on an outpatient basis for several reasons:

- CBT focuses on understanding the determinants of substance use, and this is best done in the context of the patient's day-to-day life. By understanding who the patients are, where they live, and how they spend their time, therapists can develop more elaborate functional analyses.
- Skills training is most effective when patients have an opportunity to practice new skills and approaches within the context of their daily routine, learn what does and does not work for them, and discuss new strategies with the therapist.

Patients

CBT has been evaluated with a broad range of cocaine abusers. The following are generally *not appropriate* for CBT delivered on an out-patient basis:

- Those who have psychotic or bipolar disorders and are not stabi lized on medication
- Those who have no stable living arrangements
- Those who are not medically stable (as assessed by a pretreatment physical examination)
- Those who have other concurrent substance dependence disorders, with the exception of alcohol or marijuana dependence (although we assess the need for alcohol detoxification in the former)

No significant differences have been found in outcome or retention for patients who seek treatment because of court or probation pressure

and those who have DSM-IV diagnoses of antisocial personality disorder or other Axis II disorders, nor has outcome varied by patient race/ethnicity or gender.

Compatibility With Adjunctive Treatments

CBT is highly compatible with a variety of other treatments designed to address a range of comorbid problems and severities of cocaine abuse:

- Pharmacotherapy for cocaine use and/or concurrent psychiatric disorders
- Self-help groups such as Cocaine Anonymous (CA) and Alco holics Anonymous (AA)
- Family and couples therapy
- Vocational counseling, parenting skills, and so on

When CBT is provided as part of a larger treatment package, it is essential for the CBT therapist to maintain close and regular contact with other treatment providers.

Active Ingredients of CBT

All behavioral or psychosocial treatments include both common and unique factors or "active ingredients." Common factors are those dimensions of treatment that are found in most psychotherapies - the provision of education, a convincing rationale for the treatment, enhancing expectations of improvement, provision of support and encouragement, and, in particular, the quality of the therapeutic relationship (Rozenzweig 1936; Castonguay 1993). Unique factors are those techniques and interventions that distinguish or characterize a particular psychotherapy.

CBT, like most therapies, consists of a complex combination of common and unique factors. For example, in CBT mere delivery of skills training without grounding in a positive therapeutic relationship leads to a dry, overly didactic approach that alienates or bores most patients and ultimately has the opposite effect of that intended. It is important to recognize that CBT is thought to exert its effects through this intricate interplay of common and unique factors.

A major task of the therapist is to achieve an appropriate balance between attending to the relationship and delivering skills training. For example, without a solid therapeutic alliance, it is unlikely that a patient will stay in treatment, be sufficiently engaged to learn new skills, or share successes and failures in trying new approaches to old problems. Conversely, empathic delivery of skills training as tools to help patients

manage their lives more effectively may form the basis of a strong working alliance.

Essential and Unique Interventions

The key active ingredients that distinguish CBT from other therapies and that must be delivered for adequate exposure to CBT include the following:

- Functional analyses of substance abuse
- Individualized training in recognizing and coping with craving, man aging thoughts about substance use, problemsolving, planning for emergencies, recognizing seemingly irrelevant decisions, and refusal skills
- Examination of the patient's cognitive processes related to substance use
- Identification and debriefing of past and future high-risk situations
- Encouragement and review of extra-session implementation of skills
- Practice of skills within sessions

Recommended But Not Unique Interventions

Interventions or strategies that should be delivered, as appropriate, during the course of each patient's treatment but that are not necessarily unique to CBT include those listed below.

- Discussing, reviewing, and reformulating the patient's goals for treat ment
- Monitoring cocaine abuse and craving
- Monitoring other substance abuse
- Monitoring general functioning
- Exploring positive and negative consequences of cocaine abuse
- Exploring the relationship between affect and substance abuse
- Providing feedback on urinalysis results
- Setting the agenda for the session
- Making process comments as indicated
- Discussing advantages of an abstinence goal
- Exploring the patient's ambivalence about abstinence
- Meeting resistance with exploration and a problemsolving approach
- Supporting patient efforts
- Assessing level of family support
- Explaining the distinction between a slip and a relapse

- Including family members or significant others in up to two ses sions

Acceptable Interventions

Four interventions are not required or strongly recommended as part of CBT but are not incompatible with this approach:

- Exploring self-help involvement as a coping skill
- Identifying means of self-reinforcement for abstinence
- Exploring discrepancies between a patient’s stated goals and ac tions
- Eliciting concerns about substance abuse and consequences

Interventions Not Part of CBT

Interventions that are distinctive of dissimilar approaches to treatment and less consistent with a cognitive-behavioral approach include those listed below.

- Extensive self-disclosure by the therapist
- Use of a confrontational style or a confrontation-of-denial ap proach
- Requiring the patient to attend self-help groups
- Extended discussion of 12-step recovery, higher power, “Big Book” philosophy
- Use of disease model language or slogans
- Extensive exploration of interpersonal aspects of substance abuse
- Extensive discussion or interpretation of underlying conflicts or motives
- Provision of direct reinforcement for abstinence (e.g., vouchers, tokens)
- Interventions associated with Gestalt therapy, structural interven tions, rational-emotive therapy, or other prescriptive treatment techniques

CBT Compared to Other Treatments

It is often easier to understand a treatment in terms of what it is not. This section discusses CBT for cocaine abuse in terms of its similarities to and differences from other psychosocial treatments for substance abuse.

Similar Approaches

CBT is most similar to other cognitive and behavioral therapies, all of which understand substance abuse in terms of its antecedents and

consequences. These include Beck's Cognitive Therapy (Beck et al. 1991) and the Community Reinforcement Approach (CRA) (Azrin 1976; Meyers and Smith 1995), and particularly, Marlatt's Relapse Prevention (Marlatt and Gordon 1985), from which it was adapted.

Cognitive Therapy

Cognitive therapy "is a system of psychotherapy that attempts to reduce excessive emotional reactions and self-defeating behavior by modifying the faulty or erroneous thinking and maladaptive beliefs that underlie these reactions" (Beck et al. 1991, p. 10).

CBT is particularly similar to cognitive therapy in its emphasis on functional analysis of substance abuse and identifying cognitions associated with substance abuse. It differs from cognitive therapy primarily in terms of emphasis on identifying, understanding, and changing underlying beliefs about the self and the self in relationship to substance abuse as a primary focus of treatment. Rather, in the initial sessions of CBT, the focus is on learning and practicing a variety of coping skills, only some of which are cognitive.

In CBT, initial strategies stress behavioral aspects of coping (e.g., avoiding or leaving the situation, distraction, and so on) rather than "thinking" one's way out of a situation. In cognitive therapy, the therapist's approach to focusing on cognitions is Socratic and based on leading the patient through a series of questions; in CBT, the approach is somewhat more didactic. In cognitive therapy, the treatment is thought to reduce substance use by changing the way the patient thinks; in CBT, the treatment is thought to work by changing what the patient does and thinks.

Community Reinforcement Approach

The Community Reinforcement Approach (CRA) "is a broad-spectrum behavioral treatment approach for substance abuse problems...that utilizes social, recreational, familial, and vocational reinforcers to aid clients in the recovery process" (Meyers and Smith 1995, p. 1).

This approach uses a variety of reinforcers, often available in the community, to help substance users move into a drug-free lifestyle. Typical components of CRA treatment include (1) functional analysis of substance use, (2) social and recreational counseling, (3) employment counseling, (4) drug refusal training, (5) relaxation training, (6) behavioral skills training, and (7) reciprocal relationship counseling. In the very successful approach developed by Higgins and colleagues for cocaine-dependent individuals (Higgins et al. 1991, 1994), a contingency management component is added that provides vouchers for staying in treatment. The vouchers are redeemable for items consistent with a drug-free lifestyle and are contingent upon the patient's provision of drug-free urine toxicology specimens.

Thus, CRA and CBT share a number of common features, most importantly,

the functional analysis of substance abuse and behavioral skills training. CBT differs from CRA in not typically including the direct provision of either contingency management (vouchers) for abstinence or intervening with patients outside of treatment sessions or the treatment clinic, as do community-based interventions (job or social clubs).

Motivational Enhancement Therapy

CBT has some similarities to Motivational Enhancement Therapy (MET) (Miller and Rollnick 1992). MET "is based on principles of motivational psychology and is designed to produce rapid, internally motivated change. This treatment strategy does not attempt to guide and train the client, step by step, through recovery, but instead employs motivational strategies to mobilize the client's own change resources" (Miller et al. 1992, p. 1).

CBT and MET share an exploration, early in the treatment process, of what patients stand to gain or lose through continued substance use as a strategy to build patients' motivation to change their substance abuse.

CBT and MET differ primarily in emphasis on skill training. In MET, responsibility for how patients are to go about changing their behavior is left to the patients; it is assumed that patients can use available resources to change behavior and training is not required. CBT theory maintains that learning and practice of specific substance-related coping skills foster abstinence. Thus, because they focus on different aspects of the change process (MET on why patients may go about changing their substance use, CBT on how patients might do so), these two approaches may be seen as complementary. For example, for a patient with low motivation and few resources, an initial focus on motivational strategies before turning to specific coping skills (MET before CBT) may be the most productive approach.

Dissimilar Approaches

While it is important to recognize that all psychosocial treatments for drug abuse share a number of features and may overlap or closely resemble one another in several ways, some approaches differ significantly from CBT.

Twelve-Step Facilitation

CBT is dissimilar to 12-step, or disease-model approaches, in a number of ways. Twelve-Step Facilitation (TSF) (Nowinski et al. 1994) "is grounded in the concept of alcoholism as a spiritual and medical disease. The content of this intervention is consistent with the 12 Steps of Alcoholics Anonymous (AA), with primary emphasis given to Steps 1 through 5. In addition to abstinence from all psychoactive substances, a major goal of the treatment is to foster the participant's commitment to and participation in AA or Cocaine Anonymous (CA). Participants are actively encouraged to attend self-help meetings and to maintain journals of their AA/CA attendance and participation" (Project MATCH Research Group 1993).

While CBT and TSF share some concepts - for example, the similarity between the disease model's "people, places, and things" and CBT's "high-risk situations" - there are a number of important differences. The disease-model approaches are grounded in a concept of addiction as a disease that can be controlled but never cured. In CBT, substance abuse is a learned behavior that can be modified. The emphasis in disease model approaches is on patients' loss of control over substance abuse and other aspects of their lives; the emphasis in CBT is on self-control strategies, that is, what patients can do to recognize the processes and habits that underlie and maintain substance use and what can be done to change them.

Similarly, the major change agent in disease-model approaches is involvement with the fellowship of AA/CA and working the 12 Steps, that is, the way to cope with nearly all drug-related problems is by going to meetings or deepening involvement with fellowship activities. In CBT, coping strategies are much more individualized and based on the specific types of problems encountered by patients and their usual coping style.

While attending AA or CA meetings is not required or strongly encouraged in CBT, some patients find attending meetings very helpful in their efforts to become or remain abstinent. CBT therapists take a neutral stance to attending AA; they encourage patients to view going to meetings as a, not the coping strategy. The CBT therapist may explore with the patient the ways in which going to a meeting when faced with strong urges to use may be a very useful and important strategy to cope with craving; however, therapists will also encourage patients to think about and have ready a range of other strategies as well.

Interpersonal Psychotherapy

CBT is also different from interpersonal and short-term dynamic approaches such as Interpersonal Psychotherapy (IPT) (Rounsaville and Carroll 1993) or Supportive-Expressive Therapy (SE) (Luborsky 1984). IPT "is based on the concept that many psychiatric disorders, including cocaine dependence, are intimately related to disorders in interpersonal functioning which may be associated with the genesis or perpetuation of the disorder. IPT, as adapted for cocaine dependence, has four definitive characteristics: (1) adherence to a medical model of psychiatric disorders, (2) focus on patients' difficulties in current interpersonal functioning, (3) brevity and consistency of focus, and (4) use of an exploratory stance by the therapist that is similar to that of supportive and expressive therapies."

IPT differs from CBT in several ways: CBT has a structured approach, whereas IPT is more exploratory. Extensive efforts are made in CBT to teach and encourage patients to use skills to control their substance abuse, while in the more exploratory IPT approaches, substance abuse

is viewed as a symptom of other difficulties and conflicts and thus may deal less directly with the substance use.

Basic Principles of CBT

CBT is collaborative. The patient and therapist consider and decide together on the appropriate treatment goals, the type and timing of skills training, whether a significant other is brought into some of the sessions, the nature of outside practice tasks, and so on. Not only does this foster the development of a good working relationship and avoid an overly passive stance by the therapist, but it also assures that treatment will be most useful and relevant to the patient.

Learned Behavior

CBT is based on social learning theory. It is assumed that an important factor in how individuals begin to use and abuse substances is that they learn to do so. The several ways individuals may learn to use drugs include modeling, operant conditioning, and classical conditioning.

Modeling

People learn new skills by watching others and then trying it themselves. For example, children learn language by listening to and copying their parents. The same may be true for many substance abusers. By seeing their parents use alcohol, individuals may learn to cope with problems by drinking. Teenagers often begin smoking after watching their friends use cigarettes. So, too, may some cocaine abusers begin to use after watching their friends or family members use cocaine or other drugs.

Operant Conditioning

Laboratory animals will work to obtain the same substances that many humans abuse (cocaine, opiates, and alcohol) because they find exposure to the substance pleasurable, that is, reinforcing. Drug use can also be seen as behavior that is reinforced by its consequences. Cocaine may be used because it changes the way a person feels (e.g., powerful, energetic, euphoric, stimulated, less depressed), thinks (I can do anything, I can only get through this if I am high), or behaves (less inhibited, more confident).

The perceived positive (and negative) consequences of cocaine use vary widely from individual to individual. People with family histories of substance abuse, a high need for sensation seeking, or those with a concurrent psychiatric disorder may find cocaine particularly reinforcing.

It is important that clinicians understand that any given individual uses cocaine for *important* and *particular* reasons.

Classical Conditioning

Pavlov demonstrated that, over time, repeated pairings of one stimulus (e.g., a bell ringing) with another (e.g., the presentation of food) could elicit a reliable response (e.g., a dog salivating). Over time, cocaine abuse may become paired with money or cocaine paraphernalia, particular places (bars, places to buy drugs), particular people (drug-using associates, dealers), times of day or week (after work, weekends), feeling states (lonely, bored), and so on. Eventually, exposure to those cues alone is sufficient to elicit very intense cravings or urges that are often followed by cocaine abuse.

Functional Analysis

The first step in CBT is helping patients recognize why they are using cocaine and determining what they need to do to either avoid or cope with whatever triggers their use. This requires a careful analysis of the circumstances of each episode and the skills and resources available to patients. These issues can often be assessed in the first few sessions through an open-ended exploration of the patients' substance abuse history, their view of what brought them to treatment, and their goals for treatment.

Therapists should try to learn the answers to the following questions.

Deficiencies and Obstacles

- Have the patients been able to recognize the need to reduce availability of cocaine?
- Have they been able to recognize important cocaine cues?
- Have they been able to achieve even brief periods of abstinence?
- Have they recognized events that have led to relapse?
- Have the patients been able to tolerate periods of cocaine craving or emotional distress without resorting to drug use?
- Do they recognize the relationship of their other substance abuse (especially alcohol) in maintaining cocaine dependence?
- Do the patients have concurrent psychiatric disorders or other problems that might confound efforts to change behavior?

Skills and Strengths

- What skills or strengths have they demonstrated during any previous periods of abstinence?
- Have they been able to maintain a job or positive relationships while abusing drugs?

- Are there people in the patients' social network who do not use or supply drugs?
- Are there social supports and resources to bolster the patients' efforts to become abstinent?
- How do the patients spend time when not using drugs or recovering from their effects?
- What was their highest level of functioning before using drugs?
- What brought them to treatment now?
- How motivated are the patients?

Determinants of Cocaine Use

- What is their individual pattern of use (weekends only, every day, binge use)?
- What triggers their cocaine use?
- Do they use cocaine alone or with other people?
- Where do they buy and use cocaine?
- Where and how do they acquire the money to buy drugs?
- What has happened to (or within) the patients before the most recent episodes of abuse?
- What circumstances were at play when cocaine abuse began or became problematic?
- How do they describe cocaine and its effects on them?
- What are the roles, both positive and negative, that cocaine plays in their lives?

Relevant Domains

In identifying patients' determinants of drug abuse, it may be helpful for clinicians to focus their inquiries to cover at least five general domains:

- *Social*: With whom do they spend most of their time? With whom do they use drugs? Do they have relationships with those individuals that do not involve substance abuse? Do they live with someone who is a substance abuser? How has their social network changed since drug abuse began or escalated?
- *Environmental*: What are the particular environmental cues for their drug abuse (e.g., money, alcohol use, particular times of the day, certain neighborhoods)? What is the level of their day-to-day exposure to these cues? Can some of these cues be easily avoided?

- *Emotional*: Research has shown that feeling states commonly precede substance abuse or craving. These include both negative (depression, anxiety, boredom, anger) and positive (excitement, joy) affect states. Because many patients initially have difficulty linking particular emotional states to their substance abuse (or do so, but only at a surface level), affective antecedents of substance abuse typically are more difficult to identify in the initial stages of treatment.

- *Cognitive*: Particular sets of thought or cognition frequently precede cocaine use (I need to escape, I can't deal with this unless I'm high, With what I am going through I deserve to get high). These thoughts are often charged and have a sense of urgency.

- *Physical*: Desire for relief from uncomfortable physical states such as withdrawal has been implicated as a frequent antecedent of drug abuse. While controversy surrounding the nature of physical withdrawal symptoms from cocaine dependence continues, anecdotally, cocaine abusers frequently report particular physical sensations as precursors to substance abuse (e.g., tingling in their stomachs, fatigue or difficulty concentrating, thinking they smell cocaine).

Assessment Tools

Standardized instruments may also be useful in rounding out the therapist's understanding of the patient and identifying treatment goals. The following assessment tools have been helpful.

- Substance abuse and related problems

    - The *Addiction Severity Index* (McLellan et al. 1992) assesses the frequency and severity of substance abuse as well as the type and severity of psychosocial problems that typically accompany substance abuse (e.g., medical, legal, family/ social, employment, psychiatric).

    - The *Change Assessment Scale* (DiClemente and Hughes 1990) assesses the patient's current position on readiness for change (e.g., precontemplation, contemplation, commitment), which may be an important predictor of response to substance abuse treatment (Prochaska et al. 1992).

    - A record of daily substance use can be used to collect information on cocaine and other substance use day by day over a significant period.

    - The *Treatment Attitudes and Expectation* form, a self-report instrument, has been adapted from the National Institute of Mental Health Treatment of Depression Collaborative Research Program (Elkin et al. 1985) and modified for use with

cocaine abusers. Greater congruence between patients' expectations of treatment and beliefs about the causes of substance use and those of the treatment they receive may result in improved outcome, as compared to persons whose treatment expectations contrast with the treatment received (Hall et al. 1991).

- Psychiatric diagnosis and symptoms

    - The *Structured Clinical Interview for DSM-IV (SCID)* and *SCID-P* (First et al. 1995) provides DSM-IV diagnoses (for Axis I and II psychiatric diagnoses). It can also be used to assess severity of cocaine dependence by the total number of dependence syndrome elements endorsed (from the DSM-III-R substance abuse criteria).

    - The *California Psychological Inventory Socialization Scale (CPI-So)* has been found to be a valid continuous measure of sociopathy in alcoholics (Cooney et al. 1990) and an important variable for patient-treatment matching in alcoholics (Kadden et al. 1989).

    - The self-report *Beck Depression Inventory (BDI)* (Beck et al. 1961) and a clinician-rated instrument, the *Hamilton Depression Rating Scale* (Hamilton 1960), assess depression. The *Symptom Checklist (SCL-90)* (Derogatis et al. 1973) assesses a broader range of symptoms.

- Baseline level of coping skills and self-efficacy

    - The *Cocaine Use Situations Inventory* monitors changes in patients' self-efficacy and expectations of abstinence. This self-report form lists approximately 30 different types of high-risk situations and helps clinicians pinpoint specific situa tions that the patient does not cope with effectively. This in strument was derived from the self-efficacy instrument de veloped by Condiotte and Lichtenstein (1981) for use with alcoholics.

Skills Training

Learning serves as an important metaphor for the treatment process throughout CBT. Therapists tell patients that a goal of the treatment is to help them "unlearn" old, ineffective behaviors and "learn" new ones. Patients, particularly those who are demoralized by their failure to cease their cocaine abuse, or for whom the consequences of cocaine abuse have been highly negative, are frequently surprised to consider cocaine abuse as a type of skill, as something they have learned to do over time. After all, they are surprised when they think of themselves as having *learned* a complex set of skills that enabled them to acquire the money

needed to buy cocaine (which often led to another set of licit or illicit skills), acquire cocaine without being arrested, use cocaine and avoid detection, and so on. Patients who can reframe their self-appraisals in terms of being skilled in this way often see that they also have the capacity to learn a new set of skills that will help them remain abstinent.

Learning Strategies Aimed at Cessation of Cocaine Use

In CBT, it is assumed that individuals essentially learn to become cocaine abusers through complex interplays of modeling, classical conditioning, or operant conditioning. Each of these principles is used to help the patient stop abusing cocaine.

- *Modeling* is used to help the patient learn new behaviors by having the patient participate in role-plays with the therapist during treat ment. The patient learns to respond in new, unfamiliar ways by first watching the therapist model those new strategies and then practicing those strategies within the supportive context of the therapy hour. Newbehaviors may include how to refuse an offer of drugs or how to break off or limit a relationship with a drug-using associate.

- *Operant conditioning* concepts are used several ways in CBT.
  - Through a detailed examination of the antecedents and consequences of substance abuse, therapists attempt to understand why patients may be more likely to use in a given situation and to understand the role that cocaine plays in their lives. This functional analysis of substance abuse is used to identify the high-risk situations in which they are likely to abuse drugs and, thus, to provide the basis for learning more effective coping behaviors in those situations.
  - Therapists attempt to help patients develop meaningful alternative reinforcers to drug abuse, that is, other activities and involvements (relationships, work, hobbies) that serve as viable alternatives to cocaine abuse and help them remain abstinent.
  - A detailed examination of the consequences, both long- and short-term, of cocaine and other substance abuse is employed as a strategy to build or reinforce the patient's resolve to reduce or cease substance abuse.

- *Classical conditioning* concepts also play an important role in CBT, particularly in interventions directed at reducing some forms of craving for cocaine. Just as Pavlov demonstrated that repeated pairings of a conditioned stimulus with an unconditioned stimulus could elicit a conditioned response, he also demonstrated that repeated exposure to the conditioned stimulus *without* the unconditioned stimulus would, over time, extinguish

the conditioned response. Thus, the therapist attempts to help patients understand and recognize conditioned craving, identify their own idiosyncratic array of conditioned cues for craving, avoid exposure to those cues, and cope effectively with craving when it does occur so that conditioned craving is reduced.

Generalizable Skills

Since CBT treatment is brief, only a few specific skills can be introduced to most patients. Typically, these are skills designed to help the patient gain initial control over cocaine and other substance abuse, such as coping with craving and managing thoughts about drug abuse. However, the therapist should make it clear to the patient that any of these skills can be applied to a variety of problems, not just cocaine abuse.

The therapist should explain that CBT is an approach that seeks to teach skills and strategies that the patient can use long after treatment. For example, the skills involved in coping with craving (recognizing and avoiding cues, modifying behavior through urge-control techniques, and so on) can be used to deal with a variety of strong emotional states that may also be related to cocaine abuse. Similarly, the session on problemsolving skills can be applied to nearly any problem the patient faces, whether drug abuse-related or not.

Basic Skills First

This manual describes a sequence of sessions to be delivered to patients; each focuses on a single or related set of skills (e.g., craving, coping with emergencies). The order of presentation of these skills has evolved with experience with the types of problems most often presented by cocaine-abusing patients coming into treatment.

Early sessions focus on the fundamental skills of addressing ambivalence and fostering motivation to stop cocaine abuse, helping the patient deal with issues of drug availability and craving, and other skills intended to help the patient achieve initial abstinence or control over use. Later sessions build on these basic skills to help the patient achieve stronger control over cocaine abuse by working on more complex topics and skills (problemsolving, addressing subtle emotional or cognitive states). For example, the skills patients learn in achieving control over craving (urge control) serve as a model for helping them manage and tolerate other emotional states that may lead to cocaine abuse.

Match Material to Patient Needs

CBT is highly individualized. Rather than viewing treatment as cookbook psychoeducation, the therapist should carefully match the *content, timing*, and *nature of presentation* of the material to the patient. The therapist attempts to provide skills training at the moment the patient is most in need of the skill. The therapist does not belabor topics, such as breaking ties with cocaine suppliers, with a patient who is

highly motivated and has been abstinent for several weeks. Similarly, the therapist does not rush through material in an attempt to cover all of it in a few weeks; for some patients, it may take several weeks to truly master a basic skill. It is more effective to slow down and work at a pace that is comfortable and productive for a particular individual than to risk the therapeutic alliance by using a pace that is too aggressive.

Similarly, therapists should be careful to use language that is compatible with the patient's level of understanding and sophistication. For example, while some patients can readily understand concepts of conditioned craving in terms of Pavlov's experiments on classical conditioning, others require simpler, more concrete examples, using familiar language and terms.

Therapists should frequently check with patients to be sure they understand a concept and that the material feels relevant to them. The therapist should also be alert to signals from patients who think the material is not well suited to them. These signals include loss of eye contact and other forms of drifting away, overly brief responses, failure to come up with examples, failure to do homework, and so on.

An important strategy in matching material to patient needs (and providing treatment that is patient driven rather than manual driven) is to use, whenever possible, *specific examples* provided by the patients, either through their history or relating events of the week. For example, rather than focusing on an abstract recitation of "Seemingly Irrelevant Decisions," the therapist should emphasize a recent, specific example of a decision made by the patient that ended in an episode of cocaine use or craving. Similarly, to make sure the patient understands a concept, the therapist should ask the patient to think of a specific experience or example that occurred in the past week that illustrates the concept or idea.

> *"It sounds like you had a lot of difficulty this week and wound up in some risky situations without quite knowing how you got there. That's exactly what I'd like to talk about this week, how by not paying at tention to the little decisions we make all the time, we can land in some rough spots. Now, you started out talking about how you had nothing to do on Saturday and decided to hang out in the park, and 2 hours later you were driving into the city to score with Teddy. If we look carefully at what happened Saturday, I bet we can come up with a whole chain of decisions you made that seemed pretty innocent at the time, but eventually led to you being in the city. For example, how did it happen that you felt you had nothing to do on Saturday?"*

Use Repetition

Learning new skills and effective skill-building requires time and repetition. By the time they seek treatment, cocaine users' habits related to their drug abuse tend to be deeply ingrained. Any given patient's routine

h around acquiring, using, and recovering from cocaine use is well established and tends to feel comfortable to the patient, despite the negative consequences of cocaine abuse. It is important that therapists recognize how difficult, uncomfortable, and even threatening it is to change these established habits and try new behaviors. For most patients, mastering a new approach to old situations takes several attempts.

Moreover, many patients come to treatment only after long periods of chronic use, which may affect their attention, concentration, and memory and thus their ability to comprehend new material. Others seek treatment at a point of extreme crisis (e.g., learning they are HIV positive, after losing a job); these patients may be so preoccupied with their current problems that they find it difficult to focus on the therapist's thoughts and suggestions. Thus, in the early weeks of treatment, repetition is often necessary if a patient is to be able to understand or retain a concept or idea.

In fact, the basic concepts of this treatment are repeated throughout the CBT process. For example, the idea of a functional analysis of cocaine abuse occurs formally in the first session as part of the rationale for treatment, when the therapist describes understanding cocaine abuse in terms of antecedents and consequences. Next, patients are asked to practice conducting a functional analysis as part of the homework assignment for the first session. The concept of a functional analysis then recurs in each session; the therapist starts out by asking about any episodes of cocaine use or craving, what preceded the episodes, and how the patient coped.

The idea of cocaine use in the context of its antecedents and consequences is inherent in most treatment sessions. For example, craving and thoughts about cocaine are common antecedents of cocaine abuse and are the focus of two early sessions. These sessions encourage patients to identify their own obvious and more subtle determinants of cocaine abuse, with a slightly different focus each time. Similarly, each session ends with a review of the possible pitfalls and high-risk situations that may occur before the next session, to again stimulate patients to become aware of and change their habits related to cocaine abuse.

While key concepts are repeated throughout the manual, therapists should recognize that repetition of whole sessions, or parts of sessions, may be necessary for patients who do not readily grasp these concepts because of cognitive impairment or other problems. Therapists should feel free to repeat session material as many times and in as many different ways as needed with particular patients.

Practice Mastering Skills

We do not master complex new skills by merely reading about them or watching others do them. We learn by trying out new skills ourselves, making mistakes, identifying those mistakes, and trying again.

In CBT, practice of new skills is a central, essential component of treatment. The degree to which the treatment is skills *training* over merely skills *exposure* has to do with the amount of practice. It is critical that patients have the opportunity to try out new skills within the supportive context of treatment. Through firsthand experience, patients can learn what new approaches work or do not work for them, where they have difficulty or problems, and so on.

CBT offers many opportunities for practice, both within sessions and outside of them. Each session includes opportunities for patients to rehearse and review ideas, raise concerns, and get feedback from the therapist. Practice exercises are suggested for each session; these are basically homework assignments that provide a structured way of helping patients test unfamiliar behaviors or try familiar behaviors in new situations.

However, practice is only useful if the patient sees its value and actually tries the exercise. Compliance with extra-session assignments is a problem for many patients. Several strategies are helpful in encouraging patients to do homework.

Give a Clear Rationale

Therapists should not expect a patient to practice a skill or do a homework assignment without understanding why it might be helpful. Thus, as part of the first session, therapists should stress the importance of extra-session practice.

> *"It will be important for us to talk about and work on new coping skills in our sessions, but it is even more important to put these skills into use in your daily life. You are really the expert on what works and doesn't work for you, and the best way to find out what works for you is to try it out. It's very important that you give yourself a chance to try out new skills outside our sessions so we can identify and discuss any problems you might have putting them into practice. We've found, too, that people who try to practice these things tend to do better in treatment. The practice exercises I'll be giving you at the end of each session will help you try out these skills. We'll go over how well they worked for you, what you thought of the exercises, and what you learned about yourself and your coping style at the beginning of each session."*

Get a Commitment

We are all much more likely to do things we have told other people we would do. Rather than assume that patients will follow through on a task, CBT therapists should be direct and ask patients whether they are willing to practice skills outside of sessions and whether they think it will be helpful to do so. A clear "yes" conveys the message that the patient understands the importance of the task and its usefulness. Moreover, it sets up a discussion of discrepancy if the patient fails to follow through.

On the other hand, hesitation or refusal may be a critical signal of clinical issues that are important to explore with the patient. Patients may refuse to do homework because they do not see the value of the task, because they are ambivalent about treatment or renouncing cocaine abuse, because they do not understand the task, or for various other reasons.

Anticipate Obstacles

It is essential to leave enough time at the end of each session to develop or go over the upcoming week's practice exercise in detail. Patients should be given ample opportunity to ask questions and raise concerns about the task. Therapists should ask patients to anticipate any difficulties they might have in carrying out the assignment and apply a prob-lemsolving strategy to help work through these obstacles. Patients should be active participants in this process and have the opportunity to change or develop the task with the therapist, to plan how the skill will be put into practice, and so on.

Working through obstacles may include a different approach to the task (e.g., using a tape recorder for self-monitoring instead of writing), thinking through when the task will be done, whether someone else will be asked to help, and so on. The goal of this discussion should be the patient's expressed commitment to do the exercise.

Monitor Closely

Following up on assignments is critical to improving compliance and enhancing the effectiveness of these tasks. Checking on task completion underscores the importance of practicing coping skills outside of sessions. It also provides an opportunity to discuss the patient's experience with the tasks so that any problems can be addressed in treatment.

In general, patients who do homework tend to have therapists who value homework, spend a lot of time talking about homework, and expect their patients to actually do the homework. The early part of each session must include at least *5 minutes* for reviewing the practice exercise in detail; it should not be limited to asking patients whether they did it. If patients expect the therapist to ask about the practice exercise, they are more likely to attempt it than are patients whose therapist does not follow through.

Similarly, if any other task is discussed during a session (e.g., implementation of a specific plan to avoid a potential high-risk situation), be sure to bring it up in the following session. For example, "Were you able to talk to your brother about not coming over after he gets high?"

Use the Data

The work patients do in implementing a practice exercise and their thoughts about the task convey a wealth of important information about the patients, their coping style and resources, and their strengths and

weaknesses. It should be valued by the therapist and put to use during the sessions.

A simple self-monitoring assignment, for example, can quickly reveal patients' understanding of the task or basic concepts of CBT, level of cognitive flexibility, insight into their own behavior, level of motivation, coping style, level of impulsivity, verbal skills, usual emotional state, and much more. Rather than simply checking homework, the CBT therapist should explore with the patients what they learned about themselves in carrying out the task. This, along with the therapist's own observations, will help guide the topic selection and pacing of future sessions.

Explore Resistance

Some patients literally do the practice exercise in the waiting room before a session, while others do not even think about their practice exercises. Failure to implement coping skills outside of sessions may have a variety of meanings: patients feel hopeless and do not think it is worth trying to change behavior; they expect change to occur through willpower alone, without making specific changes in particular problem areas; the patients' life is chaotic and crisis ridden, and they are too disorganized to carry out the tasks; and so on. By exploring the specific nature of patients' difficulty, therapists can help them work through it.

Praise Approximations

Just as most patients do not immediately become fully abstinent on treatment entry, many are not fully compliant with practice exercises. Therapists should try to shape the patients' behavior by praising even small attempts at working on assignments, highlighting anything they reveal was helpful or interesting in carrying out the assignment, reiterating the importance of practice, and developing a plan for completion of the next session's homework assignment.

The Structure and Format of Sessions

CBT is highly structured and is more didactic than many other treatments. Thus, CBT therapists assume a more directive and active stance than therapists conducting some other forms of substance abuse treatment.

A great deal of work is done during each session, including reviewing practice exercises, debriefing problems that may have occurred since the last session, skills training, feedback on skills training, in-session practice, and planning for the next week. This active stance must be balanced with adequate time for understanding and engaging with the patient.

20/20/20 Rule

To achieve a good integration of manual-driven and patient-driven material in each session, we have developed the "20/20/20 Rule" for the flow of a typical 60-minute CBT session **(exhibit 1)**. During the first 20 minutes, therapists focus on getting a clear understanding of patients' current concerns, level of general functioning, and substance use and craving during the past week, as well as their experiences with the practice exercise. This part of the session tends to be characterized by patients doing most of the talking, although therapists guide with questions and reflection as they get a sense of the patients' current status.

The second 20 minutes is devoted to introduction and discussion of a particular skill. Therapists typically talk more than patients during this part of the session, although it is critical that therapists personalize the didactic material and check back with patients frequently for examples and understanding.

The final 20 minutes reverts to being more patient dominated, as patients and therapists agree on a practice exercise for the next week and anticipate and plan for any difficulties the patients might encounter before the next session.

Exhibit 1: Session Flow in CBT, The 20/20/20 Rule

First 20 minutes

- Assess substance abuse, craving, and high-risk situations since last session.
- *Listen* for/elicit patients' concerns
- Review and *discuss* the practice exercise

Second 20 minutes

- Introduce and discuss the session topic
- *Relate* the session topic to current concerns

Third 20 minutes

- *Explore* the patient's understanding of and reactions to the topic.
- *Assign* a practice exercise for the next week
- Review plans for the week and *anticipate* potential high-risk situations.

First Third of Session

Assess Patient Status

Therapists greet the patients and typically start the session by asking them how they are doing. Most patients respond by spontaneously reporting whether they used cocaine or had cravings during the last week. If patients do not report substance use, therapists should ask about this directly. Particularly in the beginning of treatment, therapists should obtain detailed, day-by-day descriptions of how much cocaine was used.

For each episode of use, therapists should spend several minutes doing a functional analysis (what happened before the episode, when was the patient first aware of the desire or urge to use, what was the feeling, how and where did the patient acquire the cocaine, what was the high like, what happened afterward). If patients report no cocaine use, therapists should probe for any high-risk situations or cravings they may have experienced and debrief these as well. The therapists' goal is to get a detailed sense of the patients' current level of functioning, motivation, and cocaine use.

Urine Tests

Objective feedback on patients' clinical status and progress through urine toxicology screens is an important part of this and any other drug treatment program. Urine specimens should be collected by therapists at every clinical contact (and at least weekly). The early part of the session is a good opportunity to review the results of the most recent urine toxicology report with patients. Ideally, the clinic would have

access to a dipstick method where urine can be tested on the spot, and drug abuse within the past 3 days can be detected.

While discussing urine test results is straightforward when patients report being drug-free and the laboratory results confirm this, it is somewhat more complicated when patients deny cocaine use but the urine screen is positive. While patients often present excuses or creative explanations for why the toxicology screen was in error, it is best to point out that laboratory errors are quite unusual, that patients have little to gain from not being honest about substance abuse, and in fact, have much to lose, since treatment will be less helpful if patients are not open about the kinds of problems they are having.

Confronting patients about discrepancies in self versus laboratory reports of substance use is very important; done well, this can advance the therapeutic relationship and the process of treatment significantly. However, pointing out these discrepancies should not be done in a confrontational style. Rather, therapists might point out discrepancies between the patients' stated treatment goals and the urine results ("You've said things are all going great, but the urine results make me wonder if it's all been as easy as you say. What do you make of this?"). Therapists might also point out some reasons why patients are often reluctant to admit to ongoing drug abuse (fear of being terminated from treatment, wanting to please the therapist, testing the therapist), explore these with the patients, and process these as appropriate.

> *"It sounds like you're afraid that treatment is not working for you as quickly as you, and especially your wife, would like, and admitting you used last week might mean you wouldn't continue in treatment. I want you to understand that as long as you keep coming, working hard, and trying to stop use, I'll keep working with you. The only way that would change is if your cocaine use increased to a level where it was clear that outpatient treatment just wasn't enough to help you stop. In that case, we'd talk about increasing the frequency of sessions or other options, like having you enter an inpatient unit. How does that sound?"*

* * *

> *Therapist: "I know the cocaine level from last week's lab test wasn't high, but it does indicate some recent cocaine abuse. Is it possible you used even a small amount last week?"*
>
> *Patient: "Well, I did use a dime, but I didn't think that counted."*
>
> *Therapist: "One line in the last week is a lot less than you were using just a few weeks ago and that's really great. But before we get into how you were able to cut down your use that much, I was wondering why you think that one line 'doesn't count,' since there's probably a lot we can learn about even that small amount of use."*

Problemsolving

It is not unusual for patients, particularly those who have not been in treatment before, to come late to appointments or miss appointments without calling. In such cases, therapists may apply a problemsolving strategy. This entails some inquiry about why the patient was late, brainstorming solutions to lateness, and working through how plans to attend sessions promptly might be implemented.

Listen for Current Concerns

In reporting on substance abuse and major life events since the last session, patients are likely to reveal a great deal about their general level of functioning and the types of issues and problems of most current concern. Therapists should listen carefully and assess patients in a number of domains.

- Has the patient made some progress in reducing drug abuse?
- What is the patient's current level of motivation?
- Is a reasonable level of support available in efforts to remain abstinent?
- What's bothering this person most right now?

Therapists should listen intently, clarify when necessary, and where appropriate, relate current concerns to substance abuse.

> *"It seems like you're really worried about the guys at work getting you in trouble with your boss. Are these the same guys you used with?"*
>
> or
>
> *"It sounds like you were really lonely and bored this weekend, and maybe you've been feeling this way for a long time. Is that something you'd like to work on in here?"*

During this part of the session, while getting a clear sense of patients' current concerns, therapists should be planning for the rest of the session, particularly in terms of how the planned session topic relates specifically to a problem or issue the patient has experienced recently.

> *"Talking about how bored you felt over the weekend makes me won der if you weren't having a lot of craving for cocaine as well. If you think that's true, I'd like to spend time in this session talking about understanding craving and learning to deal with it."*

When done well, this approach builds strong working relationships and heightens the relevance of CBT tremendously, because patients get the sense that the therapist is responding to their struggles with useful, timely techniques and strategies.

Discuss the Practice Exercise

The early part of each session should also include detailed review of the patients' experience with and reactions to the practice exercise. The primary focus should be on what the patients *learned* about themselves in carrying out the exercise.

- Was it easier or harder than expected?
- What coping strategies worked best?
- What did not work as well?
- Did the patients come up with any new strategies?

If therapists spend considerable time engaged in a detailed review of the patients' experience with the implementation of extra-session tasks, not only will the therapists convey the importance of practice, but both therapists and patients will learn a great deal about the patient.

Therapists should not diminish the importance of practice by doing any of the following.

- Merely asking patients whether they completed the task or accepting a one word (yes/no) response without further probing.
- Collecting the patients' practice exercise as if it were a homework assignment. Instead, patients should be encouraged to keep a notebook or journal with their practice exercises, since they may find this a useful reference long after they leave treatment.
- Using an aggressive or confrontational style when patients do not attempt new skills or do so in a perfunctory way.

Again, therapists should move patients toward practicing skills outside of sessions by giving a clear rationale, getting a commitment from the patients, anticipating and working through obstacles, monitoring task completion closely, making good use of the data, exploring resistance, and praising approximations.

Second Third of Session

Introduce the Topic

After getting a clear sense of the patients' general functioning, current concerns, and progress with task implementation, therapists should move toward a transition to the session topic for that week. This may be either introducing a new topic or finishing up or reviewing an old one. In any case, an agenda for the remainder of the sessions should be set or reviewed at this time.

"Since you had that problem with Jerry last week, I think it might be a good idea to talk more about how you can avoid or refuse offers of cocaine and to practice a few more times so you feel more confident the next time that comes up. Then we can spend some time figuring out how you can have another clean week. How does that sound?"

Relate Topic to Current Concerns

Therapists should explicitly point out the relevance of the session topic to the patients' current cocaine-related concerns and introduce the topic by using concrete examples from the patients' recent experience.

"I think this is a good time to talk about what to do when you find yourself in a really tough high-risk situation, like what happened at the park on Tuesday. You coped with it really well by getting out of there quickly, but maybe there are some other things we can come up with if you find yourself in that kind of situation again."

Explore Reactions

Therapists should never assume that patients fully understand the session material or that it feels timely and useful to them. While going through the material, therapists should repeatedly check the patients' understanding.

- **Ask for concrete examples from the patients.**

  "Can you think of a time last week when this happened to you?"

- **Elicit the patients' views on how they might use particular skills.**

  "Now that we've talked about craving and talked about urge surfing, distraction, and talking it out, what do you think would work best for you? Which of these techniques have you used in the past? Is there any other way you've tried to cope with craving?"

- **Ask for direct feedback from patients.**

  "Does this seem like it's an important issue for us to be working on right now, or do you have something else in mind?"

- **Ask patients to describe the topic or skill in their own words.**

  "We've talked a lot about building an emergency plan. Just to make sure you're confident about what you want to do, can you tell me what you're planning the next time you get into an emergency situa tion?"

- **Role-play or practice the skill within the session.**

  "It sounds like you're ready to practice this. Why don't we try that situation you were telling me about when your father got angry when you asked for a ride over here?"

- Pay attention to the patients' verbal and nonverbal cues.

  "I notice that you keep looking out the window and I was wonder ing what your thoughts are on what we're talking about today."

In many cases, patients feel that a particular topic is not really relevant. For example, patients may deny experiencing any craving for cocaine. While using their clinical judgment in determining the salience of particular material for particular patients, therapists might work through a particular topic by pointing out that some problems may come up in the future, and having a particular skill in the patients' repertoire may be quite useful.

> *"I know you're not feeling bothered by craving now and don't think you'll experience any in the near future, but it may come up in a few weeks or even after you leave treatment. In any case, it might be helpful to spend a little more time talking about it, so if it does come up, you'll be prepared. What do you think?"*

Final Third of Session

The last third of the session is, like the first third, likely to be characterized by patients talking more, with therapists guiding the discussion by asking questions and obtaining clarification.

Assign a Practice Exercise

As part of the winddown of the session, therapists and patients should discuss the practice exercise for the next week. It is critical that patients understand clearly what is required. Early in treatment for most patients, and throughout treatment for others, therapists may find it useful to model the assignment during the session. Therapists should also ask for a commitment from patients to try out the skill and to work through obstacles to implementing the skill by planning when and where they will complete the task.

A suggested practice exercise accompanies each session. An advantage of using these sheets is that they also summarize key points about each topic and thus can be useful reminders to patients of the material discussed each week. However, the extra-session practice of skills is most useful to patients if it is individualized. Thus, rather than being bound by the suggested exercises, therapists and patients are encouraged to use these as starting points for discussing the best way to implement the skill and come up with variations or new assignments. Similarly, not all assignments must be written; a number of patients may have limited literacy, and they may tape their thoughts about the practice exercise.

Anticipate High-Risk Situations

The final part of each session should include a detailed discussion of the patients' plans for the upcoming week and anticipation of high-risk situations.

> *"Before we stop, why don't we spend some time thinking about what the next few days are going to be like for you. What are your plans after you leave here today? What's the hardest situation you think you'll have to deal with before we meet on Friday?"*

Therapists should try to model the idea that patients can literally plan themselves out of using cocaine. For each anticipated high-risk situation, therapists and patients should identify appropriate and viable coping skills. Early in treatment, this may be as concrete as asking a trustworthy friend or significant other to handle a patient's money.

Anticipating and planning for high-risk situations may be difficult in the beginning of treatment, particularly for patients who are not used to planning or thinking through their activities, or whose lives are highly chaotic. This models an important skill that is the focus of the session on "Seemingly Irrelevant Decisions," that is, learning to modify behavior by looking ahead.

For patients whose lives are chaotic, this may also help reduce their sense of lack of control. Similarly, patients who have been deeply involved with drug abuse for a long time will discover through this process that they have few activities to fill their time or serve as alternatives to drug abuse, especially if they have been unemployed or have few social supports unrelated to their substance abuse. This provides an opportunity to discuss strategies to rebuild a social network or begin to think about going back to work.

Topics

Eight skill topics are covered in CBT for cocaine dependence plus a termination session and elective sessions that involve significant others. The sequence in which the topics are presented should be based on the clinical judgment of therapists and the needs of the patients. They are given here in the sequence most often used with cocaine abusers. The most critical behavioral skills for patients just entering treatment are introduced first, followed by more general skills.

Since CBT is usually delivered in 12-16 sessions over 12 weeks, there are fewer skills-training topics than sessions. This provides some flexibility for therapists to allow for greater practice and mastery of a small but critical set of skills as well as repetition of session material as needed. It is intended to prevent patients from being overwhelmed with material.

Several skill guidelines are given for each session, many more than can be reasonably introduced. When delivered as a single session, therapists should carefully select skills to match the patients and not attempt to cover them all. A therapist might pick one or two coping skills the patient has used in the past and introduce one or two more that are consistent with the patient's coping style.

When delivered in more than one session, therapists should split up the guidelines, discussing and practicing the most basic and familiar skills in the first session and more challenging ones in the second. Moreover, the two-session format allows patients to be introduced to a skill in the first session, practice it in the interval before the next session, and discuss and work through any difficulties during the second session. Practice exercises should be given for both sessions, with the exercise for the second session being a variant of the first (e.g., trying out a skill not used the week before, increasing the difficulty or complexity of the task).

Some patients, particularly less severe users, may move through the skills very quickly. When this occurs, excellent elective session material can be found in *Treating Alcohol Dependence: A Coping Skills Training Guide in the Treatment of Alcoholism* (Monti et al. 1989). Since this material tends to focus on broad, interpersonal skills, such as coping with criticism or anger, it is comparatively straightforward to adapt for use with cocaine abusers.

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Integrating CBT and Medication

CBT is highly compatible with pharmacotherapy. When used in combination with medication, the range of CBT interventions expands to include a focus on enhancing medication compliance. Generally, medication response and compliance are monitored during the early part of each session (i.e., the first third of a 20/20/20 session). The following specific strategies (Adapted from Carroll and O'Malley 1996.) have been found useful:

- Inquire as to patients' previous experience with medication.

  Therapists should ask patients about their prior history with pharmacotherapy for any psychiatric disorder or condition.

  - Why was it prescribed?
  - Was it helpful?
  - Under what conditions was it terminated?
  - Did they take the medication as prescribed?

  Previous noncompliance should alert therapists to the need to establish the patients' view of why they did not comply previously and to attempt to address those issues proactively.

- Address patients' concerns about medication.

  During all sessions, therapists should listen carefully for any concerns, misunderstandings, or prejudices about taking medication and address these rapidly and assertively. These may include misconceptions about expected medication effects, time needed to experience the effect, side effects, dosing, and interactions with cocaine and other substances. Therapists should provide clarification in clear, familiar terms and frequently check back with patients to be sure they understand.

When medication effects may not be immediately apparent, it is impor-tant to inform patients that it may take several weeks before therapeutic effects emerge; thus, patients should be encouraged to expect gradual

rather than all-or-nothing change. Explaining the gradual emergence of medication effects provides an opportunity for the therapist to emphasize that *patients should not expect to benefit from an entirely passive stance regarding CBT treatment* simply because they are taking medication. Mastery and implementation of coping skills remain an essential and important part of treatment; medication may be an additional, useful adjunct or tool.

- Assess medication compliance since last session.

  Close, consistent, and careful monitoring is one of the most effective strategies for enhancing compliance with medications. Thus, a portion of each session should be devoted to evaluating medication compliance and working through any difficulties that might arise. In general, until the patients' compliance pattern is clearly established, therapists should, at each meeting, inquire about medication compliance, day by day, since the last session. This should include asking when patients take the medication, how they take the medication, and a thorough discussion of any deviation from the prescribed dose and schedule.

  Fawcett et al. (1987) noted that compliance and retention are most difficult to achieve early and late in treatment - early if the patient is not receiving obvious benefit, and later if the patient, after obtaining a partial or full therapeutic response, does not appreciate the need to continue treatment. Thus, therapists should be particularly attentive to compliance and motivation issues during early and late sessions.

- Praise medication compliance.

  Therapists should also convey confidence in the medication and inform patients of the likely benefits. Therapists should be strongly on the side of compliance and praise patients' compliance enthusiastically and genuinely.

  > *"I see you have taken your medication every day since our last meeting. That's really great. I know you had your doubts about whether the medication would work for you, and I'm glad you were willing to give it a try. Have you noticed any positive changes you think might be related to the medication?"*

- Relate patients' clinical improvement to compliance and lack of improvement to noncompliance.

  A crucial role of the therapist is to establish and stress the connection between medication compliance, psychotherapy sessions, and improvement. Therapists should make explicit causal links between patients' compliance and improvement in cocaine abuse and other appropriate target symptoms. Conversely, therapists might tie poor compliance to failure to improve.

"Since you've been taking the medication, I can see a lot of positive changes in your life....you've cut way down on your cocaine use and you say you've been feeling a lot better. I think the changes indicate that the medication is helping you. What do you think?"

Or

"I know you're discouraged about how you've been feeling,but since we've begun to work together, you've also told me you haven't been taking the medication every day. As we've disc ussed, I don't think you'll notice a real change until you take the medication more consistently. How about giving it a try?"

- Use a problemsolving strategy for noncompliance.

When patients are not compliant with medication, therapists should take a practical, objective approach. They should try to help patients clarify reasons or obstacles to compliance and generate practical solutions. For example, patients may report difficulty remembering to take the medication. Practical strategies tocue the patient (e.g., notes on the bathroom mirror,taking the medication at a regular mealtime, enlisting family support and reminders) should be generated and followed up on in the next session. In all of these discussions, therapists should be nonjudgmental and nonconfrontational. Efforts should be made to help patients feel ownership of the plan. This can be done by having them take the primary role in developing the plan, rather than having therapists telling them what to do.

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Session 1: Introduction to Treatment and CBT

Tasks for Session 1

- Take history and establish relationship
- Enhance motivation
- Present the CBT model
- Introduce functional analysis
- Negotiate treatment goals and treatment contract
- Provide a rationale for extra-session tasks

Session Goals

The first session is the most important and often the most difficult because the therapist must address several areas.

- Begin to establish a relationship with the patient
- Assess the nature of the patient's substance use and other problems that may be important factors in treatment
- Provide a rationale for the treatment
- Establish the structure for the remaining sessions
- Initiate skills training

Because of the complexity of the tasks involved in the first session, the therapist should allow 90 minutes, rather than rely on the typical 1-hour session.

Key Interventions

History and Relationship Building

Therapists should spend a considerable amount of time during the first session getting to know the patients, obtaining histories of them and their substance use, getting a sense of their level of motivation, and determining what led them to seek treatment. This can occur through a series of open-ended questions that should cover at least the following areas.

Reasons for seeking treatment and treatment history

- What brought you here today?
- Have you ever been in treatment for cocaine abuse before?
- If yes, when was that? How long did you stay there? What was it like? What did you like or not like about the program? Why did you leave?
- Have you ever been in treatment for abuse of other substances, like heroin, alcohol, or benzodiazepines?

History and current pattern of cocaine abuse

- What is your cocaine use right now? How do you use it?
- How often do you use cocaine? How much do you use?
- What is your longest period of abstinence from cocaine? When did it start? Stop?
- What is the longest period of abstinence you've had in the last 3 months? How did that start and end?
- What have you tried to do to cut down on your cocaine use?
- How do you get cocaine?
- How much alcohol do you drink? How does drinking affect your cocaine use?
- How long have you been able to not drink?
- What other types of drugs are you using?
- How do you feel after using cocaine?
- How did your cocaine use get started?

Other problems and resources

- Where do you live? Does anyone you live with use cocaine?
- Who among the people you spend the most time with use drugs? Who doesn't use?
- Are you working now? How has your cocaine use affected your employment?
- Does your family know about your cocaine use?
- When was your last physical? Do you have any medical problems or worries?
- Do you have any legal problems? Is probation or parole involved with your decision to seek treatment?

- How do you feel most of the time? Have you been depressed or down? Have you ever thought about hurting yourself? Have you ever done so? Does that happen only when you use cocaine?

- Have you ever become paranoid or thought someone was after you while using? What was that like?

If patients have been through an extensive pretreatment assessment battery, therapists should attempt to be sensitive to further questions.

"I know you've already spent several hours answering questions, but now as we're beginning treatment, I hope you can answer a few more questions that should help you and me plan where we go from here."

Enhance Motivation

As patients respond to the above questions, the therapist should listen closely for and, where possible, elicit statements or comments from them concerning their reasons for seeking treatment or reducing cocaine use. Some of the general strategies recommended by Miller and colleagues (1992) for enhancing motivation and avoiding resistance are extremely useful. These are summarized below.

- Elicit self-motivational statements.

  "It sounds like, from what you've told me, that your parents and your probation officer are worried about your cocaine use, but I was wondering how you feel about it?"

  "Tell me how using cocaine has affected you."

  "What bothers you most about your cocaine use?"

- Listen with empathy.

  "It sounds like you're worried about taking all this on at once."

  "You feel like you want to stop, but you're worried because you've tried treatment before and you've gone back to cocaine use each time."

  "On one hand, you feel not seeing Jerry as much would be an important step forward for you because you've always used with him, but on the other hand, you worry about cutting yourself off from a friend you've been close to for a long time."

  The therapist should avoid interrupting the patient, arguing with or challenging the patient, or changing the subject.

- Roll with resistance.

  "You're not sure you're ready to spend a lot of time changing your lifestyle right now."

  "I think you're jumping ahead a bit; we can take some time to talk about what's the best goal for you and how to approach it."

- Point out discrepancies.

  "You're not sure cocaine is that big a problem, but at the same time a lot of people who care about you think it is, and getting arrested for drug possession is causing some problems for you."

- Clarify free choice.

  "There's nothing I or anyone else can do to make you stop using cocaine; what you do is really up to you."

  "You can decide to take this on now or wait until another time."

- Review consequences of action and inaction.

  "What do you see happening if you don't stop using cocaine?"

  "It sounds like you've got some concerns about slowing things down with Jerry; what do you think will happen if you don't?"

Negotiate Treatment Goals

CBT for cocaine dependence is an abstinence-oriented treatment for many reasons. Cocaine use, even in small amounts, is associated with a variety of serious medical and psychiatric risks. Furthermore, unlike alcohol where some cognitive-behaviorally oriented treatments advocate a moderate drinking goal, cocaine is an illicit drug with considerable legal risks. Clinically, better outcomes are usually seen for patients who are abstinent.

However, relatively few patients come to treatment completely committed to abstinence. Many seek treatment because of some external persuasion or coercion; others want to cut down to a point where the negative consequences are eliminated, but cocaine use might go on. For highly ambivalent patients, clinicians must recognize that commitment to abstinence is a process that often takes several weeks to work through. Moreover, in most patients, abstinence takes several weeks to achieve and does not occur all at once.

Therapists should explicitly state that the goal of treatment is abstinence. However, for highly ambivalent patients, this should be done in a manner that acknowledges their uncertainty.

> "I know you're not sure about stopping cocaine use completely, and we'll spend some time over the next few sessions talking about what you want to decide. However, there are some good reasons to con sider abstinence from cocaine, as well as abstinence from other drugs and alcohol. For example, by trying to stop completely while you're here, you'll learn a lot about yourself and some of the factors that might be pushing you to continue using. You might also find it easier to understand the circumstances that make it more likely that you will use and some things you can do to stop using. You'll also avoid substituting other substances for cocaine. After a period of abstinence, you can get a clear idea of how you will feel without

cocaine in the picture and can get a sense of whether that's what you really want to do. You can always change your mind later. What do you think?"

While this is a short-term treatment focused on cessation of cocaine use, patients often have a number of coexisting problems and concerns. Some are related to cocaine dependence, but some are not. While the primary focus of treatment should be stopping cocaine abuse, it is important to recognize and help patients sort through other problems and symptoms.

Therapists should also ask whether patients have other goals, as well as how stopping substance use might help them reach those goals (e.g., regain custody of their children, go back to work). In the case of problems that may be closely related to cocaine dependence (e.g., depressive symptoms, marital conflict, legal problems), it is critical for therapists to acknowledge these, work with patients to prioritize goals in relation to cocaine use, negotiate reasonable treatment goals and how the goals of treatment will be addressed, and monitor these other target symptoms and problems as treatment proceeds.

"I know you've been feeling down and want to try Prozac again, but you've been abusing cocaine for a long time, and it's going to be hard to sort out how much of how you're feeling is related to cocaine abuse and how much might be a depressive problem that's separate from your cocaine abuse. The best way to tell is after a period of abstinence from cocaine. Generally, we find that depressed feelings which last more than a month after the last use indicate the need to address drug abuse and depression separately, possibly with medication for the depression. What do you think about being abstinent for a month, and then considering a referral to a psychiatrist for a medication evaluation? In the meantime, it also sounds like we should spend some time talking about feeling down and how that might be related to your cocaine use."

* * *

"It sounds like there have been some problems with Billy for a long time, and he's asked you to leave, but you think things might get better if you stop using cocaine. One thing we can do in our work is to invite Billy to attend a session or two so he can ask questions and learn more about this treatment program, and the two of you can talk about where to go from here. After we complete this first 12 weeks, we might also think about a referral to family services. How does that sound?"

Present the CBT Model

Next, therapists should provide an explanation and rationale for the treatment. This should cover the following points.

- Cocaine use can be seen as learned behavior.

"One way of looking at cocaine use is that it's something people learn to do over time. They learn from watching other people use it; they learn ways to get and use it; they learn that cocaine has certain effects that may make them feel more energetic or attractive or so cial. As you've been talking, it seems like you've been doing a lot of learning over the years, too."

- Over time, cocaine use affects how people think, how they feel, and what they do.

  "This learning process affects a lot of things about a person over time. People start developing certain beliefs about cocaine - like it's hard for them to function without it. You've probably developed your own set of beliefs about cocaine abuse. By looking at these beliefs, we'll be able to understand them better and that will help you learn ways to stop. Cocaine also affects how people feel. Some people find it makes them feel better for a short period of time, others talk about using cocaine to try to stop feeling so bad. Over time, those feelings become associated with cocaine, and it's important to try to look at and understand these reactions. Finally, cocaine affects what people do.You've already talked about how cocaine is such a habit for you, that it's something you do without even thinking."

- By understanding this process, individuals find it easier to learn to stop using cocaine and other drugs.

  "You've said there's a lot about cocaine that's pretty automatic for you, like how you don't even remember going to New York last week. What we'll do is spend a lot of time slowing that process down. We will look at what happens long before you use, what you're thinking and feeling and where you are using. We will look at what use is like for you, and we'll look at what happens after you use. By under standing what seems so automatic now, your cocaine abuse will be a lot easier to control."

- New, more effective skills can replace old habits that lead to co caine use.

  "It's not just understanding these automatic processes, it's also do ing something different that helps people stop using. You've talked about how just stopping the cocaine and not changing anything else doesn't really work for you. Really stopping cocaine means learning to do things differently. That's where coping skills come in. Instead of responding to old cues and problems with cocaine, we'll be talk ing about, and practicing, new, more effective ways of coping. This isn't always easy, because you've learned your cocaine coping style over a long period of time.What we'll do is help you unlearn some old, less effective strategies and learn some new, more effective ones. It'll take some time and a lot of practice to learn some new skills, but I bet if we look at the time you were abstinent for 4 months last year, we'lln find you used some pretty effective coping mechanisms."

- Practice is essential.

  "It takes practice trying out new ways of responding to old situations. One thing that might help is to remember that it took a lot of time for you to learn how to be such an effective cocaine abuser - how to get the money, buy cocaine, use it, and not get caught. That's a highly developed skill for you. Since you've been doing it for so long, a lot of other kinds of skills that you might have aren't being practiced and won't be natural for you at first. That's where practice of new skills comes in. We'll practice during sessions, but each week we'll also talk about how you can practice new skills outside our sessions. This kind of practice is really important. It won't seem natural or easy at first. By sticking it out and practicing outside of our meetings though, you'll learn a lot about yourself and what works and doesn't work for you. You can always bring problems in and talk about new ways of coping. Can you seeyourself doing some practice outside of sessions?"

Establish Treatment Ground Rules

In addition to treatment goals and tasks, it is important to establish clear expectations for the patient in terms of treatment, your obligations, and the patient's responsibilities. The following areas should be reviewed and discussed.

- Scheduling of sessions and length of treatment
- Importance of regular attendance
- Calling in advance if the patient will miss the session or be late
- Collection of a urine specimen at each session
- The need to come to sessions free of cocaine, alcohol, or other drugs

Introduce Functional Analysis

Therapists should work through a recent episode of cocaine use with patients, conducting a full functional analysis.

"To get an idea of how all this works, let's go through an example. Tell me all you can about the last time you used cocaine. Where were you and what were you doing? What happened before? How were you feeling? When was the first time you were aware of wanting to use? What was the high like at the beginning? What was it like later? Can you think of anything positive that happened as a result of us ing? What about negative consequences?"

Practice Exercise

The practice exercise (exhibit 2) asks patients to do a functional analysis of at least three recent episodes of cocaine use. It follows closely the format of the functional analysis conducted by the therapist within the session. Therapists may want to use the sheet as a within-session example.

EXHIBIT 2.-Functional Analysis

Trigger What sets me up to use?	Thoughts and Fellings What was I thinking? What was I feeling?	Behavior What did I do then?	Positive Consequences What positive thing happened?	Negative Consquences What negative things happened

Topic 1: Coping With Craving

Tasks for Topic 1

- Understanding craving
- Describing craving
- Identifying triggers
- Avoiding cues
- Coping with craving

Session Goals

Because craving is such a difficult problem for so many cocaine abusers, this topic is introduced very early in treatment. Episodes of intense subjective craving for cocaine are often reported weeks and even months after the inception of abstinence. This experience can be both mystifying and disturbing to the abuser and can result in cocaine abuse if it is not understood and managed effectively.

The goals of the session are to -

- Understand the patient's experience of craving.
- Convey the nature of craving as a normal, time-limited experience.
- Identify craving cues and triggers.
- Impart and practice craving- and urge-control techniques.

Key Interventions

Understanding Craving

It is important for patients to recognize that experiencing some craving is normal and quite common. Craving does not mean something is wrong or that the patient really wants to resume drug use.*

Because of the frequency and the variety of circumstances in which

* Much of this material on key interventions used with episodes of craving was adapted from Kadden et al. 1992.

cocaine is self-administered, a multitude of stimuli have been paired with cocaine abuse. These may act as conditioned cues or triggers for cocaine craving. Common triggers include being around people with whom one used cocaine, having money or getting paid, drinking alcohol, social situations, and certain affective states, such as anxiety, depression, or joy. Triggers for cocaine craving also are highly idiosyncratic, thus identification of cues should take place in an ongoing way throughout treatment.

To explain the ideas of conditioned cues, therapists might paraphrase Pavlov's classical conditioning paradigm by equating food to cocaine, the animal's salivation to cocaine craving, and the bell as the trigger. Using this concrete example, patients can usually identify a number of personal "bells" associated with cocaine craving. The example of Pavlov's experiments is often enough to demystify the experience of craving and help patients identify and tolerate conditioned craving when it occurs.

It is also important to convey the *time-limited nature* of cocaine craving, that is, conditioned craving usually peaks and dissipates in less than an hour, *if not followed by cocaine use*. Therapists should also explain the process of *extinction* of conditioned responses, again using concrete examples from Pavlov's experiments.

Describing Craving

essential to get a sense of the patients' experience of craving. This includes eliciting the following information.

- What is craving like for you?

Cravings or urges are experienced in a variety of ways by different patients. For some, the experience is primarily somatic; for example, "I just get a feeling in my stomach" or "My heart races" or "I start smelling it." For others, craving is experienced more cognitively; for example, "I need it now" or "I can't get it out of my head" or "It calls me." Or it may be experienced affectively; for example, "I get nervous" or "I'm bored." It is important for the therapist to get a clear idea of how craving is experienced by the patient.

- How bothered are you by craving?

There is tremendous variability in the level and intensity of craving reported by patients. For some, achieving and maintaining control over craving will be a principal treatment goal and take several weeks to achieve. Other patients deny they experience any craving. Gentle exploration with patients who deny any craving (especially those who continue to use cocaine) often reveals that they misinterpret a variety of experiences or simply ignore craving when it occurs until they suddenly find themselves

using. Other, abstinent patients who deny they experience any craving often, when asked, admit to intense fears about relapsing.

- How long does craving last for you?

  To make the point about the time-limited nature of craving, it is often important to point out to patients that they have rarely let themselves experience an episode of craving without giving in to it.

- How do you try to cope with it?

  Getting a sense of the coping strategies used by patients will help the therapist identify their characteristic coping styles and select appropriate coping strategies.

Identifying Triggers

Therapists should then work with patients to develop a comprehensive list of their own triggers. Some patients become overwhelmed when asked to identify cues (one patient reported that even breathing was associated with cocaine use for him). Again, it may be most helpful to concentrate on identifying the craving and cues that have been *most* problematic in recent weeks. This list should be started during the session; the practice exercise for this session should include self-monitoring of craving, so patients can begin to identify new, more subtle cues as they arise.

Avoiding Cues

Keep in mind that the general strategy of "recognize, avoid, and cope" is particularly applicable to craving. After identifying the patients' most problematic cues, therapists should explore the degree to which some of these can be avoided. This may include breaking ties or reducing contact with individuals who use or supply cocaine, getting rid of paraphernalia, staying out of bars or other places where cocaine was used, or no longer carrying money, as in the following example:

> *"You've said that having money in your pocket is the toughest trig ger for you right now. Let's spend some time thinking through ways that you might not have to be exposed to money as much. What do you think would work? Is there an amount of money you can carry with you that feels safe? You talked about giving your check to your mother earlier; do you think this would work? You've said that she's very angry about your cocaine use in the past; do you think she'd agree to do this? How would you negotiate her keeping your money for you? How could you arrange with her to get money you needed for living expenses? How long would this arrangement go on?"*

Therapists should spend considerable time exploring the relationship between alcohol and cocaine with patients who use them together to such an extent that alcohol becomes a powerful cocaine cue. Specific strategies to reduce, or preferably, stop alcohol use should be explored.

Coping With Craving

The variety of strategies for coping with craving include the following.

- Distraction
- Talking about craving
- Going with the craving
- Recalling the negative consequences of cocaine abuse
- Using self-talk

Therapists may wish to point out that these strategies may not stop craving completely. However, with practice, they will reduce the frequency and intensity of craving and make it less disturbing and frustrating when it occurs.

Distraction

In many cases, an effective strategy for coping with conditioned craving for cocaine is distraction, especially doing something physical. It is useful to prepare a list of reliable distracting activities in conjunction with patients in anticipation of future craving. Such activities might include taking a walk, playing basketball, and doing relaxation exercises. Preparation of such a list may reduce the likelihood that patients will use substances, particularly alcohol and marijuana, in ill-fated attempts to deal with craving. Leaving the situation and going somewhere safe is one of the most effective ways of dealing with craving when it occurs.

Talking About Craving

When patients have supportive, abstinent friends and family members, talking about craving when it occurs is a very effective strategy and can help reduce the feelings of anxiety and vulnerability that often accompany it. It can also help patients identify specific cues.

Close family members may become distressed when they hear patients talk about craving because they expect it to lead to use. Therapists might spend some time identifying who patients would feel comfortable talking with about craving, how that person would be likely to react, and whether it makes sense to ask that person in advance for support.

> *"It sounds like you think talking to your wife might help, but you've also said that she's very nervous about what would happen if you relapsed. Do you think she'd be able to listen if you talked with her the next time you felt like using? Maybe you could talk to her about this before the next time you feel craving, so the two of you can figure out how you'll handle it when it comes up."*

Socially isolated patients, or those who have few nonusing friends, will find it difficult to nominate a supportive other who can assist with craving, thoughts about cocaine, and other problems. This should alert therapists to the need to consider addressing social isolation during

reatment. For example, therapists and patients can brainstorm ways of meeting new, nonusing others, reconnecting with friends and family members, and so on. To help patients "own" these strategies and be more likely to initiate positive social contact, therapists might suggest applying the problemsolving strategies discussed in **topic 7**.

Going With The Craving

The idea behind this technique is to let cravings occur, peak, and pass; in other words, to experience them without either fighting or giving into them. Giving patients the imagery of a wave or walking over a hill may help convey this concept, as does judo, that is, gaining control by avoiding resistance.

Ito and colleagues (1984) identified the steps involved; these should be practiced within sessions or at home before craving occurs. Also, patients should be told that the purpose is not to make the cravings disappear, but to experience them in a different way that makes them feel less anxiety provoking and dangerous and thus easier to ride out. The steps are summarized below.

- *Pay attention to the craving*. This usually involves, first, finding some place safe to let oneself experience craving (e.g., a comfortable and quiet place at home). Next, relax and focus on the experience of crav ing itself - where it occurs in the body or mind and how intense it is.
- *Focus on the area where the craving occurs*. This involves paying attention to all the somatic and affective signals and trying to put them into words. What is the feeling like? Where is it? How strong is it? Does it move or change? Where else does it occur? After concen trating in this way, many patients find the craving goes away entirely. In fact, the patient may find it useful to rate the intensity of craving before and after the exercise to demonstrate the effectiveness of the technique.

Recalling Negative Consequences

When experiencing craving, many people have a tendency to remember only the positive effects of cocaine; they often forget the negative consequences. Thus, when experiencing craving, it is often effective for them to remind themselves of the benefits of abstinence and the negative consequences of continuing to use. This way, patients can remind themselves that they really will not feel better if they use.

To this end, it may be useful to ask patients to list on a 3 x 5 card the reasons they want to be abstinent and the negative consequences of use and to keep the card in their wallet or another obvious place. A glimpse of the card when confronted by intense craving for cocaine or a high-risk situation can remind them of the negative consequences of cocaine use at a time when they are likely to recall only the euphoria.

Using Self-Talk

For many patients, a variety of automatic thoughts accompany craving but are so deeply established that patients are not aware of them. Automatic thoughts associated with craving often have a sense of urgency and exaggerated dire consequences (e.g., "I have to use now," "I'll die if I don't use," or "I can't do anything else until I use").

In coping with craving, it is important both to recognize the automatic thoughts and to counter them effectively. To help patients recognize their automatic thoughts, therapists can point out cognitive distortions that occur during sessions (e.g.,"A few times today you've said you feel like you have to use. Are you aware of those thoughts when you have them?"). Another strategy is to help patients "slow down the tape" to recognize cognitions.

> *"When you decided to go out last night, you said that you really weren't aware of thinking about using cocaine. But I bet if we go back and try to remember what the night was like, sort of play it back like a movie in slow motion, we could find a couple of examples of things you said to yourself, maybe without even realizing it, that led to cocaine use. Can you sort of play last night back for us now?"*

Once automatic thoughts are identified, it becomes much easier to counter or confront them, using positive rather than negative self-talk. This includes cognitions such as *challenging the thought* (e.g.,"I won't really die if I don't have cocaine"), and *normalizing craving* (e.g., "Craving is uncomfortable, but a lot of people have it and it's something I can deal with without using").

Practice Exercises

Depending on how serious a problem craving is for a patient, this topic can be delivered in one or two sessions. When presented in two sessions, the first session focuses on recognizing craving and identifying triggers, and the extra-session task includes making a more elaborate list of craving triggers through **self-monitoring (exhibit 3)**. The second session then focuses on learning and practicing coping strategies, and the extra-session tasks involve continuing to self-monitor and also observing the coping behaviors used when craving occurs.

Exhibit 3: Coping With Cravings and Urges

Reminders:

- Urges are common and normal. They are not a sign of failure. Instead, try to learn from them about what your craving triggers are.
- Urges are like ocean waves. They get stronger only to a point, then they start to go away.
- If you don't use, your urges will weaken and eventually go away. Urges only get stronger if you give in to them.
- You can try to avoid urges by avoiding or eliminating the cues that trigger them.
- You can *cope* with urges by -
  - Distracting yourself for a few minutes.
  - Talking about the urge with someone supportive.
  - "Urge surfing" or riding out the urge.
  - Recalling the negative consequences of using.
  - Talking yourself through the urge.

Each day this week, fill out a daily record of cocaine craving and what you did to cope with craving.

Example :

Date/Time	Situation, thoughts, and feelings	Intensity of Craving (1-100)	Length of Craving	I How I Coped
Friday, 3 pm	Fight with boss, frustrated, angry	75	20 minutes	Called home, talked to Mary
Friday, 7 pm	Watching TV, bored, trouble staying awake	60	25 minutes	Rode it out and went to bed early
Saturday, 9 pm	Wanted to go out and get a drink	80	45 minutes	Played basketball instead

Daily Record of Cocaine Craving

Date/Time	Situation, thoughts, and feelings	Intensity of Craving (1-100)	Length of Craving	How I Coped

Adapted from Kadden et al. 1992.

Topic 2: Shoring Up Motivation and Commitment to Stop

Tasks for Topic 2

- Clarifying and prioritizing goals
- Addressing ambivalence
- Identifying and coping with thoughts about cocaine

Session Goals

By now, therapists and patients will have completed several functional analyses of cocaine use and high-risk situations, and patients have a clearer idea of the general approach to treatment. Most patients have also reduced their cocaine use significantly (or even stopped) at this point and can work toward a more realistic view of treatment goals than may have been possible in the first session. Patients are more aware of the role cocaine has played in their lives; they may be aware of recurrent thoughts about cocaine, and they may also be more ready to sort through some of their ambivalence about cocaine abuse and treatment.

While some patients intend to fully cease cocaine and other substance use, others may have slightly different goals.

- Reduction of cocaine use to “controlled” levels
- Cessation of cocaine use but continued high use of alcohol or other substances
- Remaining in treatment until the external pressures that precipitated treatment seeking (e.g., a spouse’s ultimatum, pressure from an up coming court case) have abated

While such goals tend to be quite unrealistic, it may be wise for therapists, particularly in the early weeks of treatment, to not directly challenge them until a therapeutic alliance is established that allows for a more informed reassessment. Allowing patients to recognize for themselves the impossibility of controlled cocaine use may be much more persuasive than a therapist’s repeated warnings. For example, a young woman maintained she could not possibly cease both cocaine

and marijuana simultaneously (because she attempted to use marijuana to cope with cocaine craving) until she discovered that her excursions to buy marijuana led to a variety of powerful cocaine cues and usually to extended cocaine binges.

The goals of this session are to -

- Revisit and clarify treatment goals.
- Acknowledge and address ambivalence about abstinence.
- Learn to identify and cope with thoughts about cocaine.

Key Interventions

Clarify Goals

This is a good time to explore with patients their commitment to abstinence and other treatment goals. By now, even patients who were pressured into treatment usually have begun to sort out the consequences of continued cocaine use in relation to other goals. Thus, therapists should check the patients' current view of treatment and readiness to change.

> *"I noticed that, even though you haven't stopped completely, you've mentioned several times all the problems cocaine has caused you, like the job and the trouble with your probation officer, and some of the opportunities it has cost you, like spending more time with your kids as they were growing up. Do you have any thoughts about these problems? At the same time, I also hear that there are some things about using cocaine that you really miss right now. I thought we could spend some time this session talking more about your goals and how we might be able to help you get there. Do you feel ready for that? What are you thinking about your cocaine use at this point? Are there other problems you'd like to tackle while we work together?"*

From this discussion, therapists should be able to get a clear idea of the following:

- The patients' current readiness for change
- Their current stance toward abstinence
- A sense of other target goals and problems

This should be an open-ended discussion, with therapists refraining from taking too active a role or supplying goals for patients. The techniques described by Miller et al. (1992) for strengthening commitment to change could be used here.

- Communicate free choice (e.g., "It's up to you what you want to do about this").

- Emphasize the benefits of abstinence as a goal.
- Provide information and advice around the kinds of problems and issues that should be addressed if the patient is to remain abstinent.

Patients might be encouraged to talk about their treatment goals any number of ways (e.g., "Have you thought about where you want to be 12 weeks from now? What about 12 months from now?"). This discussion usually elicits other target symptoms and problems, some of which may be closely related to cocaine use (e.g., medical, legal, family/social, psychiatric, employment/support, and other types of substance abuse or dependence). Others may be less closely related and thus less important to address during treatment. Because this is a brief treatment focused on helping patients achieve initial abstinence, therapists must balance the need to address problems that might pose barriers to abstinence with the need to keep treatment focused on achieving abstinence.

Therapists should work with patients to prioritize other target problems:

- *Is a psychosocial problem likely to pose a barrier to patients' achieving abstinence?* Therapists should work with patients to identify severe psychosocial problems that, if unaddressed, would be likely to interfere with efforts to become abstinent or make life so chaotic that they would be unable to be fully involved in treatment. Examples include homelessness, severe psychiatric problems or symptoms including suicidal ideation or intent, and acute medical conditions. Therapists should address such problems immediately and as appropriate. Significant suicidality or homicidality requires immediate referral to an emergency room. Therapists should also consider devoting time during each session to case management **(topic 8)**.
- *Is the problem best assessed and addressed after some control over cocaine use is achieved?* Many patients present for treatment with more concerns about the consequences of chronic cocaine dependence than the dependence itself. A variety of problems may be caused or exacerbated by cocaine dependence which, while of concern to patients, may best be addressed after they have become abstinent. For example, many patients' depression resolves with several weeks of abstinence, or a marital rift that seems unresolvable may improve when the spouse sees the patient making an earnest effort to commit to treatment and remain abstinent.

Therapists should not ignore such concerns but instead propose a plan for closely monitoring and addressing the problem if it does not improve with abstinence.

"You've told me you've been feeling really down, and it feels like all the bills are coming due at once. That's not unusual for someone in the first few days of abstinence. Since some depression is very com mon for people who are in the early phases of abstinence, I'd like to check in with you very often about how you're feeling. If you stay abstinent and aren't feeling better in a few weeks, we might want to t hink about doing a more formal assessment of depression, possibly by referring you to a psychiatrist. How does that sound to you?"

- *Can addressing the problem wait?* If the problem does not pose a barrier to treatment and is not directly related to cocaine abuse, sug gest waiting to address it until after the first 12 weeks in order to keep treatment focused on achieving abstinence. Therapists might also point out that problemsolving skills will be covered, and they can be applied to a range of problems other than cocaine dependence.

Address Ambivalence About Abstinence

Ambivalence is best addressed early to foster a therapeutic alliance that allows for open exploration of conflicts about cessation of cocaine use. Encourage patients to articulate the reasons they have used cocaine, help them "own" the decision to stop use through exploring what they stand to gain, and underscore the idea that cocaine abuse cannot be divorced from its consequences.

We frequently use a simplified version of the decision matrix described by Marlatt and Gordon (1985). In this exercise, therapists use an index card and record the patients' descriptions of all possible benefits of continued cocaine use, however subjective, on one side of the card. Some patients have initial difficulty acknowledging any positive consequences of continued cocaine abuse, but most are able to list several justifications like "There's nothing else as exciting in my life" or "I feel less anxious with people" or "I get most of my money from selling cocaine" or "Sex and coke go together."

Next, with open-ended questions, therapists encourage patients to explore each of these stated benefits (e.g., "Having money in your pocket sounds important; what else does selling do for you?"). Most often, patients indicate many of these are ultimately negative. For example, if the cocaine high was listed as an advantage, the nature of the high is explored, and patients are reminded of the crash and dysphoria that invariably follow and endure much longer than the euphoria. Patients who sell cocaine remind themselves that all of the profits are used to support cocaine use.

Therapists then ask patients to list all possible reasons to stop cocaine abuse and write these on the other side of the card. These are typically numerous and reflect negative consequences such as "I want to keep my job" or "Fewer fights with my parents" or "More money for things

I want." Patients are instructed to keep the card in their wallet, preferably near their money. A glimpse of the card when confronted by intense craving for cocaine or a high-risk situation can remind them of the negative consequences of cocaine abuse when they are likely to recall only the euphoria associated with the high.

The power of this concrete reminder was illustrated by a cocaine abuser who removed the card from his wallet before he went out one evening when he intended to use cocaine; he felt the card had literally "stopped me from using" on several previous occasions.

Identifying and Coping With Thoughts About Cocaine

Ambivalence is often manifested in thoughts about cocaine and using that are difficult to manage. Cocaine was an important, even dominant, factor in patients' lives, and thoughts, both positive and negative, about cocaine are normal and likely to linger for some time. Again, the strategy here is to "recognize, avoid, and cope."

Recognize

Thoughts associated with cocaine that can lead to resumption of use vary widely across individuals and their cognitive styles. Therapists should help patients identify their own cognitive distortions and ration-alizations ("I've noticed that you talk about your cocaine self and your straight self; can you tell me more about your cocaine self?"). It is important that therapists also clearly define automatic thoughts (e.g., either a thought or visual image that you may not be very aware of unless you focus your attention on it) and cognitions (e.g., things you say to yourself).

Common thoughts associated with cocaine include the following.

- *Testing control:* "I can go to parties (see friends who are users, drink or smoke marijuana) without using."
- *Life will never be the same:* "I love being high."
- *Failure:* "Previous treatments haven't worked; there's no hope for me."
- *Diminished pleasure:* "The world is boring without cocaine."
- *Entitlement:* "I deserve a reward."
- *Feeling uncomfortable:* "I don't know how to be with people if I'm not high"
- *What the hell:* "I screwed up again, I might as well get high."
- *Escape:* "My life is so bad, I just need a break for a few hours."

Avoid

Avoiding thoughts associated with cocaine is not always possible, but individuals who tend to be focused on positive goals seem to be less

troubled by them. Asking patients to articulate and record their short- and long-term goals often helps them see beyond the immediate tempt-ations more readily than individuals who lack a clear focus on the future.

For an in-session exercise, have patients record their immediate (next week), short-term (next 12 weeks), and long-term (the next year) goals. These should be as concrete as possible (e.g., instead of "have a lot of money," "have a job paying $12 an hour by October").

Cope

There are a number of strategies for coping with thoughts about cocaine.*

- *Thinking through the high.* While patients are beset with craving or positive thoughts about cocaine, it is often difficult to remember the downside of a cocaine binge. Therapists can ask patients to relate an instance and come up with an image of the end of a particularly un pleasant cocaine binge. For example, one patient's image of waking up naked, robbed, and beaten in someone else's car in a town he did not know, was powerful enough to counter a range of nostalgic thoughts about cocaine.

- *Challenge the thoughts.* For each negative, cocaine-related thought, patients can be encouraged to generate and practice positive beliefs to counter them: "I've dealt with craving in the past, and I can do it again" or "Keeping my family together is more important than get ting high" or "I used to have relationships where cocaine wasn't a part of the picture." These should be individualized and tailored to each patient's cognitive style. Humor and reframing are particularly effective ways of countering thoughts about cocaine for some pa tients.

- *Review negative consequences.* Reviewing a 3 x 5 card or piece of paper that lists the patient's own view of the negative consequences of cocaine use is a powerful strategy to counter craving or thoughts about cocaine. Making one's own card is one of the practice exer cises for this topic.

- *Distraction.* Just as cravings peak and go away if resisted, so do thoughts about cocaine. Thoughts about cocaine will become less strong, less frequent, and less upsetting if one does not give in to them. Just as distraction is an effective means of coping with cravi ng, having a list of activities that are pleasant (something enjoyable or stimulating), available (that could be engaged in day or night, in good or poor weather), and realistic (not expensive or always depen dent on the availability of others) is an effective way of coping with thoughts for patients who have trouble relying on other cognitive strategies.

* These strategies are adapted from Monti et al. 1989.

- *Talking*. Just as talking to a supportive friend or significant other can be an effective means of pinpointing, understanding, and working through an episode of craving, talking through cocaine thoughts is often an effective way of dispelling them. Thoughts that seem com pelling and dire (I can't live without cocaine) often lose their po tency when expressed to others. Therapists should work with pa tients to identify appropriate others with whom they can discuss and work through thoughts about cocaine when they occur.

Practice Exercises

When done as two sessions, the first session exercise includes having patients complete the 3 x 5 card of positive and negative consequences of using and the goal worksheet (exhibit 4). The second session's exercise includes monitoring of thoughts, plus recording of coping skills , similar to the craving session (exhibit 5).

Exhibit 4.-Goals Worksheet

The changes I want to make during the *next 12 weeks* are:

The most important reasons why I want to make those changes are:

The steps I plan to take in changing are:

The ways other people can help me are:

Some things that might interfere with my plan are:

Exhibit 4.-Goals Worksheet

The changes I want to make during the *next 12 months* are:

The most important reasons why I want to make those changes are:

The steps I plan to take in changing are:

The ways other people can help me are:

Some things that might interfere with my plan are:

Adapted from Miller et al. 1992.

Exhibit 5: Coping With Thoughts About Cocaine

There are several ways of coping with thoughts about cocaine:

- **Thinking through and remembering the end of the last high**
- **Challenging your thoughts**
- **Recalling the negative consequences of cocaine use**
- **Distracting yourself**
- **Talking through the thought**

Before the next session, keep track of your automatic thoughts about cocaine when they occur, and then record a positive thought and coping skills.

Thought about cocaine	*Positive thought, coping skill used*

Adapted from Monti et al. 1989.

Topic 3: Refusal Skills/Assertiveness

Tasks for Topic 3

- Assessing cocaine availability and the steps needed to reduce it
- Exploring strategies for breaking contacts with individuals who sup ply cocaine
- Learning and practicing cocaine refusal skills
- Reviewing the difference between passive, aggressive, and asser tive responding

Session Goals

A major issue for many cocaine abusers is reducing availability of cocaine and effectively refusing offers of cocaine. Patients who remain ambivalent about reducing their cocaine use often have particular difficulty when offered cocaine directly. Many cocaine users' social networks have so narrowed that they associate with few people who do not use cocaine, and cutting off contact may mean social isolation. Also, many individuals have become involved in distribution, and extricating themselves from the distribution network is difficult. Many patients lack the basic assertiveness skills to effectively refuse offers of cocaine or prevent future offers of cocaine. Thus, this session includes sections on reducing availability, refusal skills, and a review of general assertiveness skills.

Therapists should carefully direct questions to ferret out covert indicators of ambivalence and resistance to change and the social forces working against change. Failure of patients to take initial steps toward removing triggers and avoiding cocaine may reveal a number of clinically significant issues.

- Ambivalence toward stopping cocaine use (e.g., the individual who resists breaking ties with dealers or telling family and friends of his decision to stop use)
- Failure to appreciate the relationship between cocaine availability and use (e.g., the abuser who sells cocaine but maintains that he will be able to stop using while still dealing)

- Marked limitations in personal or psychosocial resources (e.g., the unemployed single parent living in a neighborhood where cocaine is readily available)
- Important indications of how actively patients will take part in treat ment. If patients have taken no independent steps toward limiting cocaine availability, they may be expecting mere exposure to treat ment to magically produce abstinence with little or no effort on their part.

The goals for this session are to -

- Assess cocaine availability and the steps needed to reduce it.
- Explore strategies for breaking contacts with individuals who supply cocaine.
- Learn and practice cocaine refusal skills.
- Review the difference between passive, aggressive, and assertive responding.

Key Interventions

Assess Cocaine Availability

Therapists and patients together should assess the current availability of cocaine and formulate strategies to limit that availability. In particular, therapists should examine whether patients are involved in selling cocaine, the nature of their cocaine sources, and whether other individuals in their home or workplace use cocaine. Determining the steps patients have already taken toward reducing cocaine availability may be an invaluable index of their internal and external resources. For example, have patients informed cocaine-using associates of their intention to stop using? Have patients who sell cocaine attempted to extricate themselves from the distribution network? It is virtually impossible for an individual to continue to sell cocaine and not use it. Therapists can make some useful inquiries.

> *"If you wanted to use cocaine, how long would it take to get some? Is there any in your house? Are you still holding onto pipes?"*
>
> *"The last few times you used, you said Tommy came to your house and suggested you take a drive. Have you thought about talking to Tommy about your decision to stop?"*

Handling Suppliers

In spite of its illicit nature, cocaine may be offered by a range of individuals - friends, coworkers, dealers, and even family members. Because such individuals frequently have financial or other incentives (e.g., maintaining the status quo in a relationship) to keep abusers in the distribution network, extricating oneself is often challenging.

Therapists should review the patients' suppliers and explore strategies for reducing contact with them. In some cases, a clear and assertive refusal, followed by a statement that the patient has decided to stop and a request that cocaine no longer be offered, can be surprisingly effective. In other cases, patients can arrange to avoid any contact with particular users or suppliers.

When patients are in a close, intimate relationship with someone who uses and supplies cocaine, the problem is more difficult. For example, it may not be easy for a woman to abstain when her partner supplies cocaine or continues to use, and she may not be ready to break off the relationship. Furthermore, sometimes only limited change in a patient's stance toward such a relationship can be effectively undertaken in 12 weeks of treatment. Rather than seeing this as either-or ("I can either stop cocaine use or get out of the relationship"), therapists should explore the extent to which exposure to cocaine can be renegotiated and limits set.

> *"I hear you say that you feel like you want to stay with Bob for now, but he's not willing to stop using cocaine. Being there is pretty risky for you, but maybe we can think of some ways to reduce the risk. Have you thought about asking him not to bring cocaine into the house or use it in the house? You've said you know there's a lot of risk to you while he continues to do that, both in terms of your stay ing abstinent as well as having drugs around your kids."*

Cocaine Refusal Skills

There are several basic principles in effective refusal of cocaine and other substances.

- Respond rapidly (not hemming and hawing, not hesitating).
- Have good eye contact.
- Respond with a clear and firm "no" that does not leave the door open to future offers of cocaine.

Many patients feel uncomfortable or guilty about saying no and think they need to make excuses for not using, which allows for the possibility of future refusals. Inform patients that "no" can be followed by changing the subject, suggesting alternative activities, and clearly requesting that the individual not offer cocaine again in the future. ("Listen, I've decided to stop and I'd like you not to ask me to use with you anymore. If you can't do that, I think you should stop coming over to my house.")

Within-Session Role-Play

After reviewing the basic refusal skills, patients should practice them through role-playing, and problems in assertive refusals should be identified and discussed. Since this is the first session that includes a formal role-play, it is important for therapists to set it up in a way that helps patients feel comfortable.

- Pick a concrete situation that occurred recently for the patients.
- Ask patients to provide some background on the target person.
- For the first role-play, have patients play the target individual, so they can convey a clear picture of the style of the person who offers cocaine and the therapist can model effective refusal skills. Then reverse the roles for subsequent role-plays.

Role-plays should be thoroughly discussed afterward. Therapists should praise any effective behaviors shown by patients and also offer clear, constructive criticism:

> *"That was good; how did it feel to you? I noticed that you looked me right in the eye and spoke right up; that was great. I also noticed that you left the door open to future offers by saying you had stopped cocaine 'for a while.' Let's try it again, but this time, try to do it in a way that makes it clear you don't want Joe to ever offer you drugs again."*

Passive, Aggressive, And Assertive Responding

Quite often, the role-plays will reveal deficits in understanding and feeling comfortable with assertive responding. For such individuals, therapists should devote another session to reviewing and practicing assertive responding. An excellent guide to this topic is given in Monti et al. (1989).

Key areas to review include defining assertiveness, reviewing the differences between response styles (passive, aggressive, passive- aggressive, and assertive), body language and nonverbal cues, and anticipating negative consequences.

Remind Patients of Termination

Beginning about the sixth week of treatment, therapists should start reminding patients of the time-limited nature of the treatment, and in some cases, begin each session thereafter by pointing out "we have xx weeks to work together." It may be helpful to discuss or reframe termination as a potential high-risk situation. Reemergence of slips and other symptoms is common in the last weeks of treatment and may be interpreted in this context (so might emergence of new problem areas).

As termination approaches, therapists might also ask patients to imagine every high-risk situation they might encounter after they leave treatment. After such relapse fantasies are elicited and explored, specific coping strategies can be developed in the weeks approaching termination. This often makes patients feel more comfortable and confident about their ability to end treatment.

Practice Exercises

The practice exercises for this session include mapping cocaine availability and strategies to reduce availability (exhibit 6) and anticipating and rehearsing refusals) to a range of individuals who might offer cocaine (exhibit 7.)

Exhibit 6: Managing Availability

List sources of cocaine here and what you'll do to reduce availability (for example, people who might offer you cocaine, places you might get it).

Source	*Steps I'll take to reduce availability*

Exhibit 7: Cocaine Refusal Skills

Tips for responding to offers of cocaine:

- Say no first.
- Make direct eye contact.
- Ask the person to stop offering cocaine.
- Don't be afraid to set limits.
- Don't leave the door open to future offers (e.g., not today).
- Remember the difference between assertive, passive, and aggressive responses

People who might offer me cocaine	***What I'll say to them***
A friend I used to use with:	
A coworker:	
At a party:	

Source: Adapted from Monti et al. 1989.

Topic 4: Seemingly Irrelevant Decisions

Tasks for Topic 4

- Understanding Seemingly Irrelevant Decisions and their relatioships to high-risk situations
- Identifying examples of Seemingly Irrelevant Decisions
- Practicing safe decisionmaking

Session Goals

As treatment progresses, patients will invariably encounter high-risk situations related to cocaine, even with the best efforts. Certain exposures are beyond the abuser's control, for example, living in an area where cocaine abounds but lacking the resources to relocate.

Another class of exposures, however, that patients often experience as beyond their control actually involves behaviors determined by the patients. Seemingly Irrelevant Decisions (Marlatt and Gordon 1985) refer to those decisions, rationalizations, and minimizations of risk that move patients closer to or even into high-risk situations, although they may seem unrelated to cocaine use.

Working with these Seemingly Irrelevant Decisions emphasizes the cognitive aspects of treatment. Those who benefit most from this process tend to possess intact cognitive functions and some ability to reflect upon their cognitive and emotional lives. This session is also particularly helpful to individuals who have trouble thinking through their behavior and its consequences, such as patients with residual attention-deficit/hyperactivity disorder, antisocial traits, or difficulty with impulse control. For such individuals, the material in this session (as well as the session on problemsolving) often takes some time to be understood and assimilated, but it is usually valued highly.

The goals of this session are to -

- Understand Seemingly Irrelevant Decisions and their relationships to high-risk situations.
- Identify examples of Seemingly Irrelevant Decisions.
- Practice safe decisionmaking.

Key Interventions

Understand Seemingly Irrelevant Decisions

A critical task for therapists is to teach patients how to recognize and interrupt Seemingly Irrelevant Decision chains before the onset of actual use. While it is possible to interrupt such a chain at any point prior to use, it is more difficult toward the end of the chain when patients may already be in situations where cocaine is available and conditioned cues abound. Thus, it is desirable to teach patients how to detect the decisions that commonly occur toward the beginning of the chain, where risk, craving, and availability of cocaine are relatively low.

This may involve patients' learning to detect subtle but painful affect states that they frequently try to counter with cocaine, such as boredom or loneliness. It often involves familiarizing patients with their distortions of thinking (e.g., rationalizations, denial) so these may be detected and used as signals for greater vigilance.

Certain distortions are fairly common, such as the thought, "I could handle going to a bar." Others, however, are more reflective of the patient's cognitive style. For instance, one patient tended to project his thoughts onto others. In describing a relapse, during which the patient had encountered a friend who had cocaine, the patient stated, "I caught him with his guard down." Another patient, recounting a slip, described the various thoughts he experienced prior to winding up in an area of town where his former dealer resided and where the patient eventually used cocaine. He stated that earlier he thought "I have to go to the bakery" which "happened" to be in a high-risk area, but he had not linked this with a desire to use. The therapist pointed out that his use of "I have to..." sounded very much like craving. Here, again, the patient could now catch himself "having" to do certain things which led to high-risk activities or locations.

Another variation of this phenomenon occurs in treatment when patients tell therapists that they "have" to take "this vacation," "attend that party," "spend time" with particular drug-using friends, and so on. These provide therapists with the opportunity to relate the patients' urgency to engage in such activities with the urge to use cocaine.

Seemingly Irrelevant Decisions are dealt with by applying recognize, avoid, and cope - *recognizing* Seemingly Irrelevant Decisions and the thoughts that go with them, *avoiding* risky decisions, and *coping* with high-risk situations.

> "I'm going to tell you a story about a person who made several Seem ingly Irrelevant Decisions that led to a high-risk situation and, even tually, a relapse. As I tell you the story, try to pick out the decisions

that he made along the way that, taken together, made him more vulnerable to using cocaine. Here is the story:

"Joe, who had been abstinent for several weeks, drove home from work on a night his wife was going to be away. On the way, he turned left rather than right at an intersection so he could enjoy the 'scenic route.' On this route, he drove past a bar he had frequented in the past and where he had bought and used cocaine. Because the weather that day was hot, he decided to stop in for a glass of cola. Once in the bar, however, he decided that since his problem was with cocaine, it would be fine to have a beer. After two beers, he ran into a friend who 'happened' to have a gram of cocaine and a relapse ensued.

"When did you think Joe first got into trouble, or 'thought' about using cocaine? One of the things about these chains of deci sions that lead to cocaine use is that they are far easier to stop in the beginning of the chain. Being farther away from cocaine, it is easier to stop the decisionmaking process than when you're closer to co caine use and craving kicks in.

"What do you think Joe was saying to himself at the point he took the scenic route home? We often find that people making Seemingly Ir relevant Decisions can catch themselves by the way they think - thoughts like 'I have to do this' or 'I really should go home this way' or 'I need to see so-and-so because...' These end up being rational izations, or ways of talking oneself into cocaine use without seeming to do so. I've noticed sometimes that you talk yourself into high-risk situations by telling yourself a situation is safe, when it really may not be, like when you told yourself last week that it was safe for you to go hang out in the park with your friends. Can you think of other examples of ways you might have talked yourself into a risky situa tion?"

Identify Personal Examples

Therapists should encourage patients to relate a recent example of a chain of Seemingly Irrelevant Decisions.

"Can you think of your own relapse story?

"Now, let's go through it and try to pinpoint the places where you made risky decisions, what you were telling yourself, and how you could have interrupted the chain before you wound up in the park with nothing to do."

Practice Safe Decisionmaking

Therapists need to stress the notion of safe decisionmaking.

"Another important thing to know about Seemingly Irrelevant Deci sions is that if you can get yourself into the practice of recognizing all the small decisions you make every day, and thinking through safe versus risky consequences for those decisions, you will be less vulnerable to high-risk situations."

"Returning to the story of Joe, what were the Seemingly Irrelevant Decisions he made and what would have been safer decisions for him?"

"Let's go through a few things that have happened to you in the last few weeks and try to work through safe versus risky decisions."

Some Seemingly Irrelevant Decisions are common among cocaine abusers.

- Using any alcohol, marijuana, or other drugs
- Keeping alcohol in the house
- Not destroying cocaine or crack paraphernalia
- Going to parties where alcohol or cocaine might be available
- Interacting with people who are cocaine abusers
- Keeping past cocaine abuse a secret from family members
- Not telling cocaine-abusing associates of the decision to stop
- Not planning to fill free time
- Having a lot of unscheduled time on nights or weekends that can lead to boredom
- Getting overtired or stressed

Practice Exercise

The practice exercise for this session includes self-monitoring of decisions over the course of several days and, for each one, **identifying safe versus risky decisions (exhibit 8)**. Remind patients that treatment will end soon, and they will be using these skills on their own.

Exhibit 8: Seemingly Irrelevant Decisions

When making any decision, whether large or small, do the following:

- **Consider all the options you have.**
- **Think about all the consequences, both positive and negative, for each of the options.**
- **Select one of the options. Pick a safe decision that minimizes your risk of relapse.**
- **Watch for "red flag" thinking - thoughts like "I have to . . .", or "I can handle . . ." or "It eally doesn't matter if . . ."**

Practice monitoring decisions that you face in the course of a day, both large and small, and consider safe and risky alternatives for each.

Decision	*Safe alternative*	*Risky alternative*

Source: Adapted from Monti et al. 1989.

Topic 5: An All-Purpose Coping Plan

Tasks for Topic 5

- Anticipating future high-risk situations
- Developing a personal, generic coping plan

Session Goals

Despite patients' best efforts, a variety of unforeseen circumstances may arise that result in high-risk situations. These often have to do with major, negative stressful events or crises, such as the death or sickness of a loved one, learning one is HIV positive, losing a job, the loss of an important relationship, and so on. However, positive events can also lead to high-risk situations. These could include receiving a large amount of money or starting a new intimate relationship. Since such events may occur anytime, during as well as after treatment, patients are encouraged to develop an emergency coping plan which they can refer to and use should such crises occur.

The goals of this session are to -

- Anticipate future high-risk situations.
- Develop a personal, generic coping plan.

Key Interventions

Anticipate High-Risk Situations

Therapists should point out that although patients will find it helpful to recognize, avoid, and cope with high-risk situations, life is unpredictable, and not all high-risk situations can be anticipated. Crises, negative stressors, and even positive events can result in high-risk situations.

Therapists should ask patients to think of three or four major stressors that might arise over the next few months, as well as what their reactions might be. Then ask them to anticipate anything that might happen to shake their commitment to abstinence. For each of these situations or circumstances, therapists and patients should develop concrete coping plans.

Develop a Coping Plan

When patients are most stressed, they may feel vulnerable and be more likely to return to old, familiar coping strategies than use the healthier but less familiar strategies they have practiced during sessions. It is important to try to develop a generic, "foolproof" coping strategy that can be used in the event of any major crisis. This should include, at minimum, the following.

- A set of emergency phone numbers of supportive others who can be relied on
- Recall of negative consequences of returning to use
- A set of positive thoughts that can be substituted for high-risk co caine thoughts
- A set of reliable distracters
- A list of safe places where the patient can ride out the crisis with few cues or temptations to use (e.g., a parent's or friend's house)

Practice Exercise

The practice exercise for this session includes anticipating some crises and responses and developing th**e all-purpose coping plan (exhibit 9)**. Remind patients that treatment will end soon, and they will be using these skills on their own.

Exhibit 9: All-Purpose Coping Plan

> **Remember that running into problems, even crises, is part of life and cannot always be avoided, but having a major problem is a time to be particularly careful about relapse.**

If I run into a high-risk situation:

1. I will leave or change the situation.
   Safe places I can go: ____________________

   ____

   ____

2. I will put off the decision to use for 15 minutes. I'll remember that my cravings usually go away in ___ minutes and I've dealt with cravings successfully in the past.

3. I'll distract myself with something I like to do.
   Good distractors: ____________________

   ____

   ____

4. I'll call my list of emergency numbers:
   Name: ____________________

   Name: ____________________

   Name: ____________________

5. I'll remind myself of my successes to this point:

   ____

   ____

   ____

6. I'll challenge my thoughts about using with positive thoughts:

   ____

   ____

   ____

Source: Adapted from Jaffee et al. 1988.

Topic 6: Problemsolving

Tasks for Topic 6

- Introducing the basic steps of problemsolving
- Practicing problemsolving skills within the session

Session Goals

Over time, many patients' repertoires of coping and problemsolving skills have narrowed such that cocaine or other substance abuse has become their single, overgeneralized means of coping with problems. Many patients are unaware of problems when they arise and ignore them until they become crises. Many others, particularly those who have impulsive cognitive styles or who are unaccustomed to thinking through alternative behaviors and consequences, find this topic particularly useful. Others *think* they have good problemsolving skills but, when confronted with a problem, are likely to act impulsively, making practice of this skill within sessions particularly important.

This session (This section is adapted closely from Monti et al. 1989 as well as Kadden et al. 1992 and D'Zurilla and Goldfried 1971.) provides a basic strategy that can be applied to a range of problems related to cocaine abuse as well as the variety of problems that will invariably arise after patients leave treatment. Despite many patients' fantasies that life will be easier and problem free after stopping cocaine use, often they become aware of problems they have neglected or ignored only after becoming abstinent.

The goals of this session are to -

- Introduce or review the basic steps of problemsolving.
- Practice problemsolving skills within the session.

Key Interventions

Introduce the Basic Steps

Therapists should convey that everyone has problems from time to time and that most can be effectively handled. Also, although having a

problem may make one anxious, effective problemsolving takes time and concentration, and the impulsive first solution is not necessarily the best.

Therapists should review the basic steps in problemsolving summarized below.*

- Recognize the problem ("Is there a problem?").

  Recognition of problems may come from several clues, including worry, anger, and depression; having problems pointed out by others; being preoccupied; and always feeling like one is in crisis.

- Identify and specify the problem ("What is the problem?").

  It is easier to solve problems that are concrete and well-defined than those that are global or vague. For large problems that seem overwhelming, it is important to try to break them down into smaller, more manageable steps.

- Consider various approaches to solving the problem ("What can I do to solve the problem?").

  An effective way to approach this is to brainstorm, that is, generate as many solutions as possible without considering, at first, which are good or bad ideas. It is more important to try for quantity, rather than quality, in the beginning. Writing these ideas down is very helpful in cases where patients may want to return to the list in the future. It is also important to recognize that not doing anything immediately is an option.

- Select the most promising approach ("What will happen if . . . ?").

  This step involves thinking ahead. Review each approach, considering both the positive and negative consequences of all solutions. This step may also involve collecting more information and assessing whether some solutions are feasible (e.g., "Can I borrow Tom's car to take the driving test?").

- Assess the effectiveness of the selected approach ("What did happen when I . . . ?").

  Therapists may need to point out that while some problems are easy to solve, others are more difficult. It may be necessary to repeat steps one through five several times before a complex problem is solved.

For impulsive patients, it is important to write down the problem

* Adapted from D'Zurilla and Goldfried 1971 and Monti et al. 1989.

and the selected approach so that the steps are not forgotten when it is time to implement them.

Practice Problemsolving Skills

Therapists should ask patients to identify two recent problems, one that is closely related to cocaine abuse and one that is less so, and work with them through the problemsolving steps for both. Therapists may have to help patients slow down, because some will have difficulty recognizing current problems. Others will quickly select a solution since they lack practice with brainstorming and considering alternatives.

Practice Exercise

Therapists ask patients to practice problemsolving skills outside of the sessions using a **reminder sheet for problemsolving (exhibit 10)**. Remind patients that treatment will end soon, and they will be using these skills on their own.

Exhibit 10: Reminder Sheet For Problemsolving

These, in brief, are the steps of the problemsolving process.

- "Is there a problem?" Recognize that a problem exists. We get clues from our bodies, our thoughts and feelings, our behavior, our reactions to other people, and the ways that other people react to us.
- "What is the problem?" Identify the problem. Describe the problem as accurately as you can. Break it down into manageable parts.
- "What can I do?" Consider various approaches to solving the problem. Brainstorm to think of as many solutions as you can. Consider acting to change the situation and/or changing the way you think about the situation.
- "What will happen if . . .?" Select the most promising approach. Consider all the positive and negative aspects of each possible approach and select the one likely to solve the prob lem.
- "How did it work?" Assess the effectiveness of the selected approach. After you have given the approach a fair trial, does it seem to be working out? If not, consider what you can do to beef up the plan, or give it up and try one of the other possible approaches.

Select a problem that does not have an obvious solution. Describe it accurately. Brainstorm a list of possible solutions. Evaluate the possibilities, and number them in the order of your preference.

Identify the problem: ______________________________

____

____

____

List brainstorming solutions: ______________________________

____

____

____

____

____

____

Source: Monti et al. 1989

Topic 7: Case Management

Tasks for Topic 7

- Reviewing and applying problemsolving skills to psychosocial problems that present a barrier to treatment
- Developing a concrete support plan for addressing psychosocial problems
- Monitoring and supporting patients' efforts to carry out the plan

Session Goals

Most patients will present for treatment with a range of concurrent psychosocial problems in addition to cocaine abuse. Some problems are best assessed and addressed after patients have achieved a period of stable abstinence, while other problems, if unaddressed, are likely to present barriers to treatment and undermine the patients' efforts to become abstinent. Thus, to deal with these issues, therapists may engage in modified "case management."

In this approach, therapists do not serve as advocates for patients *outside* of sessions. Rather, therapists use problemsolving strategies *within* treatment to help patients contact and make use of the social service system. The intent is to build patients' self-efficacy in recognizing and coping with concurrent problems and in successfully using the network of available social service agencies.

To be effective, therapists should be knowledgeable about the community's service system, with current information on the type of services provided by each organization, the types of patients served by the organization, eligibility requirements, sources for alternative serv-ices, and reasonable timeframes for various types of service delivery. Therapists should help patients transform their goals into a service plan and help them articulate the steps needed to attain these goals.

The goals of this topic are to -

- Review and apply problemsolving skills to psychosocial problems that present a barrier to treatment.

- Develop a concrete support plan for addressing psychosocial prob lems.
- Monitor and support patients' efforts to carry out the plan.

Key Interventions

Problem Identification

Early in treatment, therapists should have identified problems that would be barriers to abstinence. Information useful in identifying relevant psychosocial problems may also come from pretreatment assessments, particularly the Addiction Severity Index.

Goal Setting

Therapists and patients together should identify and prioritize the three or four major problems they will focus on during treatment and specify concrete goals for each (e.g., have a stable place to live by the end of the month, enter a job training program by the end of August). As needed, therapists should also review the basic steps in problemsolving, since that model is used to work through these target problems.

Resource Identification

With the goals clarified, therapists and patients then brainstorm solutions and the resources needed to resolve each of the target problems.

Specifying a Plan

Once problems are identified and goals set, therapists and patients should begin to work on the support plan, which is simply a concrete strategy that outlines how patients will follow through on reaching their goals. The support plan should include, for each goal, specification of *who* or *which agency* is to be contacted, *when* the contact is to be made, *what* services or support are to be requested, and the *outcome* of the contact. The support plan thus serves as a kind of log, or organizing force, in patients' efforts to obtain needed services. It will also provide a record of their efforts and successes in this area and, thus, bolster their self-efficacy.

Monitoring Progress

Although patients are to take primary responsibility in following the support plan and obtaining needed services, it is essential that therapists closely monitor their efforts to follow through. This should take place at *every subsequent session*; thus, therapists should spend time during the initial phase of the next sessions (e.g., the first 20 minutes of a 20/20/20 session) monitoring patients' success in implementing their plans. Similarly, a portion of the closing of each session should be devoted to reviewing the steps for implementing the support plan during the coming week.

Therapists should affirm patients and praise their efforts in carrying out their plans enthusiastically and genuinely. Even small steps should be

seen as significant and be met with praise. Therapists should convey confidence that patients can, and will, successfully complete the support plans and obtain needed services. In this strengths-based approach, therapists assume that patients have the resources and skills to obtain needed services, both within treatment and after treatment ends.

> *Therapist: "I'm really impressed that you were able to arrange a place for yourself at Transitional Housing. I know you had real ques tions about whether you could handle all the admission steps on your own, but it sounds like you hung in there, were persistent when Mrs. X put you on hold several times, and kept rescheduling those inter views until you got it. It sounds like it wasn't easy, but you really made it happen. How do you feel about how you handled it?"*
>
> *Patient: "Like you said, it wasn't easy, and once or twice I felt like telling them off, but I just kept telling myself I really needed a safe place to live and that I could do it."*
>
> *Therapist: "You know, you sound and look like you're really proud of yourself, and your pride is well deserved. Knowing how to work the social service system is an important skill, and one I see you getting better and better at. Have you thought about your next step?"*

Practice Exercise

The practice exercise for this week includes following through on the support plan (exhibit 11)and reporting back on the successes or problems the patients experienced in carrying out the plan. Remind patients that treatment will end soon, and they will be using these skills on their own.

Exhibit 11:-Support Plan

What is my goal?	Who is to be contacted? (Phone#, address)	When will the contact be made?	What services will I request?	Outcome
Goal 1				
Goal 2				
Goal 3				
Goal 4				

Topic 8: HIV Risk Reduction

Tasks for Topic 8

- Assessing the patients' risk for HIV infection and building moti vation to change risk behaviors
- Setting behavior change goals
- Problemsolving barriers to risk reduction
- Distributing specific risk-reduction guidelines

Session Goals

Generally, few cocaine abusers who do not engage in concurrent opioid use also use injection works (syringe, cotton, water), and thus tend to have low levels of risk for HIV infection from unsafe needle practices. However, most have substantial risk from unsafe sexual practices. Depending upon their level and type of risk for HIV infection, patients may be offered an HIV risk-reduction module in addition to their regular sessions.

The goals for this session are to -

- Assess the patients' risk for HIV infection and build motivation to change risk behaviors.
- Set behavior change goals.
- Problemsolve barriers to risk reduction.
- Distribute specific risk-reduction guidelines.

Key Interventions

Assess Risk

Therapists should help patients review their level of risk and their history of HIV testing. This can be done in discussion or by having patients complete a standardized instrument such as the HIV Risk Behaviors Inventory (Metzger et al. 1992). When using a formal test, scores should be presented in writing, with copies for the patients. Therapists should ask for patients' reactions to their level of risk and reflect and elaborate on their reactions.

Patient: "I guess I didn't realize how many people I had sex with s ince I've been on this run."

Therapist: "What do you make of this?"

This strategy can bolster awareness of risk and increase motivation for change.

Build Motivation To Change

In assessing and reviewing the level of risk, therapists should use the following motivational strategies. (From Miller et al. 1992.)

- *Affirm* the patient ("I think its great that you're willing to be honest with yourself and take time to look at your level of risk.").
- *Reframe* ("You're concerned about your level of risk, but you can't see yourself being celibate, either.").
- *Roll with resistance* ("You're jumping ahead a bit here. Right now, we're just getting a sense of where you are regarding drug injection practices and unsafe sex behaviors. Later on, we can talk about what, if anything, you want to do about it.").
- *Explore consequences* of action and inaction.
- *Communicate free choice*.
- *Elicit self-motivational statements* ("What do you want to do about this," "Tell me why you think you might need to make a change.").

Set Goals

If patients are ready to make a change, therapists work with them to set realistic, concrete risk-reduction goals for sexual and/or injection drug behavior risk, as appropriate (e.g., "I want to start using condoms with Jim this week"). Therapists should also encourage patients to identify barriers to risk-reduction goals (e.g., "You've come up with good, realistic goals that should lower your risk substantially. Now, what might get in the way of your meeting those goals?"). Barriers can include anticipated problems with negotiating condom use with a sexual partner, continuing to drink and frequent bars before using intravenously, acquiring condoms, and so on.

Problemsolve Barriers

Therapists should encourage patients to apply some of the skills and problemsolving strategies covered in earlier sessions to the problems they anticipate in meeting risk-reduction goals. This might include, for example, practicing assertiveness in the context of negotiating condom use, using positive self-talk to counter ambivalence about and objections to condom use, or using a problemsolving strategy to clarify the

connection between ongoing cocaine abuse and unsafe sexual practices.

Provide Specific Guidelines

As part of this module, therapists should offer specific information and provide handouts on risk reduction. Several areas should be covered, depending on the risk profiles of the patients.

- Clarification of the concepts of harm reduction versus abstinence
- Methods of transmission of HIV, other sexually transmitted diseases, and tuberculosis
- Risks associated with sharing injection-drug works
- Injection-drug works cleaning procedures
- Effective use of condoms
- HIV antibody testing

Practice Exercise

The practice exercise for this session involves use of the **Change Plan Worksheet (exhibit 12)** to clarify and set patient goals for HIV risk reduction.

Exhibit 12: Risk Reduction Worksheet

The changes I want to make are:

The most important reasons why I want to make these changes are:

The steps I plan to take in changing are:

The ways other people can help me are:

Some things that could interfere with my plan are:

Adapted from Miller et al. 1992.

Significant Other Session

Tasks for Significant Other Session

- Offering significant others the opportunity to learn about the treat ment in which the patient is involved
- Exploring strategies through which they can help the patient be come and remain abstinent

Session Goals

Therapists may allow patients to invite a close family member or friend to attend up to two of the CBT sessions. The purpose of their attendance is to enhance the level of social support.

Significant other sessions are conducted within a cognitive-behavioral model.* Therapists should remember that the goals of these sessions are limited and should not reflect marital or family therapy.

The goals of this session are to -

- Offer significant others the opportunity to learn about the treatment in which patients are involved.
- Explore strategies through which they can help patients become and remain abstinent.

Key Interventions

Plan Ahead

Significant other sessions should be carefully planned in advance by patients and therapists together. Three key issues should be addressed:

- *Who should attend the significant other session?* In selecting signifi cant others, patients and therapists should focus on identifying oth ers who are likely to be able to provide support to the patient, as well as individuals who are close to the patient (spouses, partners, par ents, siblings) and who are not substance

* This is drawn from the work of O'Farrell 1993 and McCrady and Epstein 1995.

abusers themselves. Significant others who are substance abusers are unlikely to offer substantial, meaningful support to the patients.

- What are the goals of the session? Unless clear goals are articulated and shared with the significant other in advance, the sessions may become a mere recounting of old wrongs and resentments, rather than focusing on planning for positive change.

- How can the significant other offer support? It is advisable for pa tients to think in advance about what kind of support they would like from the significant other. These should be as concrete and clear as possible.

Provide Information/ Set Goals

Typically, therapists begin the session by greeting the significant others, praising them for coming in and offering support to the patient, providing some ground rules for the session, and reiterating the session goals. Substantial amounts of time should be allotted for answering questions about the treatment.

Some significant others see this as an opportunity to relate complaints and express anger and distrust about the patient. Some limited "letting off steam" may be expedient and, if well managed, can enhance the patient's motivation to change (e.g., "What changes would you like Kris to make?" or "What concerns you about Kris' cocaine use?"). However, therapists should not allow destructive criticism or dredging up of old wrongs. This can be done by reorienting patients and significant others to the goals of the session as soon as is appropriate.

> *"It sounds like Kris' cocaine use has been of concern to you for some time; it has hurt the family finances, and you feel like you can't trust him. I'd like to move on now to spend some time talking about spe cific changes you both would like each other to make, to make it easier for Kris to stay clean and for your relationship to be more enjoyable for both of you."*

Identify Strategies

As a prelude to exploring how significant others can help patients in their efforts to become abstinent, therapists should spend some time reiterating the CBT treatment model (topic 1) to establish a framework for the session. Patients should then describe the ways in which the significant other can offer support. These might include -

- Providing transportation to and from the clinic.

- Helping reduce cocaine and other substance abuse cues in the envi ronment.

- Engaging in pleasant activities as a reward for sobriety and behavior change.
- Offering support and talking with them while they are experiencing craving or thoughts about cocaine.
- Helping patients make the “all-purpose coping plan” more concrete.
- Monitoring the patients’ compliance with medication.

Patients should also be prepared for the significant other to ask for behavior changes; these usually start with continued abstinence but may include other things, such as helping more around the house, accounting for money, and so on. The changes requested should be stated clearly and as specifically as possible (e.g., “I’d like to have at least 15 minutes of quiet time with you every day” or “I’d like you to watch the kids one night a week so I can go see my mother”).

Practice Exercise

The patient and significant other should be asked to develop a contract, with each person specifying the behavior changes desired from the other.

Final Session: Termination

Tasks for the Termination Session

- Reviewing the treatment plan and goals
- Getting feedback from therapists on their view of patients' progress
- Getting patients' feedback on the most and least helpful aspects of treatment

Session Goals

The major function of the last session is a final review.

- *Review the treatment plan and goals*, identifying areas in which the patients' goals were met and progress was made, as well as areas where less progress was made and further attention may be warranted.
- **Therapists** should *provide feedback on their view of the progress made by the patients*, and particularly the skills and principles that were mastered and those that patients might continue to focus on.
- **Patients** should *provide feedback on the most and least helpful as pects of treatment*, as well as their concerns about what will happen after they leave treatment.

Some patients, particularly those who have not achieved stable abstinence, should be encouraged to continue in treatment in either a clinical program or inpatient or day-treatment facilities, as appropriate.

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Appendix A: Therapist Selection, Training, and Supervision

With appropriate training and supervision, a diverse range of therapists can implement CBT effectively. However, because this manual focuses on specific cognitive-behavioral techniques and does not cover basic clinical skills, certain minimal requirements are recommended.

- A master's degree or equivalent in psychology, counseling, social work, or a closely related field
- At least 3 years experience working with a substance-abusing popu lation
- Some familiarity with and commitment to a cognitive-behavioral approach

Therapist Training

Just as reading a textbook on surgery does not produce a qualified surgeon, mere review of this manual would be inadequate for the therapist to apply CBT strategies and techniques in clinical practice or research. Appropriate therapist training for CBT for cocaine dependence requires completion of a didactic seminar and at least two closely supervised training cases.

Didactic Seminar

The didactic seminar usually lasts from 2 days to 1 week, depending on the experience level of the therapists. The seminar includes review of basic cognitive-behavioral theory and technique, topic-by-topic review of the manual, watching videotaped examples of therapists implementing the treatment, several role-play and practice exercises, discussion of case examples, and rehearsing strategies for difficult or challenging cases.

Supervised Training Cases

Supervised training cases offer an opportunity for therapists to try this approach and learn to adapt their usual approach to conform more closely to manual guidelines. The number of training cases varies according to the experience and skill level of the therapist. Generally,

more experienced therapists require only one or two training cases to achieve high levels of competence. Less experienced therapists generally require two to four supervised cases.

Each session can be videotaped and forwarded to the supervisor. The supervisor should -

- Review each session.
- Complete a rating form to evaluate the therapist's adherence to CBT guidelines and competence in implementing the treatment that ses sion.
- Provide 1 hour of individual supervision to the therapist.

Supervision sessions are structured around ratings of adherence to CBT and competence in delivering the treatment, with the supervisor noting when the therapist delivered the treatment effectively as well as areas in need of improvement.

Rating of Therapists

To have a concrete basis on which to evaluate therapist implementation of CBT, therapists and supervisors should complete parallel adherence-rating forms after each session conducted or viewed (exhibits 13 and exhibit 14). * They consist of Likert-type items that cover a range of key CBT interventions (e.g., review of homework, skills training).

Therapist Checklist

The CBT Therapist Checklist asks therapists to rate the CBT strategies and interventions that were implemented in a given session and how much the intervention was used. The checklist has a variety of purposes -

- To remind the therapist, at each session, of the key active ingredients of CBT.
- To foster greater therapist adherence to the CBT sessions and topics through self-monitoring.
- To organize and provide the basis for supervision, since therapists can readily note and explore with the supervisor the strategies and interventions they have trouble implementing with a given patient.
- To generate a useful record of which interventions were or were not delivered to each patient in a given session. For example, one can construct a session-by-session map of the order and intensity of CBT interventions introduced to a range of different patient types.

*A copy of the rating manual and rater's guidelines that accompany these forms are available from Dr. Carroll.

Rating Scale

The supervisor's version of the form, called the CBT Rating Scale, differs from the therapist's version by adding a skillfulness rating for each item. Thus, for each intervention, both quantity and quality are rated. The scale is an essential part of training.

- It provides structured feedback to the therapist and forms the basis of supervision.
- It provides a method of determining whether a therapist in training is ready to be certified to deliver the treatment.
- When used with ongoing supervision, it enables the supervisor to monitor and correct therapist "drift" in implementing the treatment.
- For therapists who have trouble adhering adequately to manual guide lines, but who maintain that they do follow it, pointing out discrep ancies between the scale and the checklist is a useful strategy for enhancing adherence.

Not all items on the rating forms are expected to be covered, or covered at a high level, during all sessions. However, items 3-11 reflect the essential CBT approach that should be present, at least to a moderate level, in the majority of sessions.

Certification of Therapists

Therapists are certified, or approved, to implement the treatment at lower levels of supervision when the supervisor determines that they have completed an adequate number of training cases successfully. More objective criteria would be an adherence score of a 3 or more on the key CBT items (items 3-11) for the most recent case and no skill rating below a 4 (adequate) on any item representing an aspect of CBT.

After certification, levels of therapist adherence to CBT guidelines are monitored closely using the CBT Rating Scale. When therapists stray from adequate adherence to the manual, supervisors increase the frequency of supervision until performance returns to an acceptable level.

Ongoing Supervision

The level and intensity of ongoing supervision reflects the experience and skill of the therapist as well as the time available for supervision. The minimum acceptable level of ongoing supervision for an experienced therapist is once a month; once-a-week supervision is recommended for less experienced therapists. Supervisors should also review and evaluate, using the CBT Rating Scale, one or two randomly selected sessions per patient.

Supervision sessions themselves should include a general review of the therapist's current cases, discussion of any problems in implementing CBT, and review of recent ratings from the supervisor. At least one of every two supervision sessions should include review of a session videotape with both the therapist and patient being present.

Guidelines

Supervision is most effective under the following circumstances.

- It is conducted at a consistent place, date, and time.
- The goals of the supervision are clear and both participants' roles are defined.
- The procedures that will be used for evaluation of the therapist are clear.
- Feedback to the therapist is focused and concrete.

  "When you debriefed X's last slip, I thought you didn't get enough information for either of you to really understand what was going on. For example, it wasn't clear to me what was going on before hand, how much she used, where she got the cocaine, and how the episode ended and she got back in control. I think you should be more thorough in doing functional analysis any time there is an epi sode of use."

Common Problems Encountered in Supervision

Balance

The structure of CBT sessions (and the 20/20/20 rule) is intended to integrate skills training with effective, supportive therapy that meets the needs of each patient as an individual. Novice therapists, particularly those with little experience in treating substance abusers or unaccustomed to a high level of structure in treatment, often let sessions become unfocused, without clear goals, and do not make the transitions needed to deliver skills training effectively. Such therapists often wait to introduce skills training until the last few minutes of the session. This results in rushing through important points, failing to use patient examples or get patient feedback, and neglecting review of the practice exercise - all of which gives the impression that skills training is not very important.

Other therapists allow themselves to become overwhelmed by the constant substance abuse-related crises presented by a patient and fail to focus on skills training or use it as an effective strategy to help the patient learn to avoid or manage crises. Falling into a crisis-driven approach tends to increase, rather than decrease, patient anxiety and to undermine self-efficacy. On the other hand, maintaining a relatively consistent session routine and balancing the patient-driven discussion of current concerns with a focus on skills and strategies is also a means by which the therapist can model effective coping and problemsolving.

Conversely, some therapists become overly fixed and inflexible in their application of skills training and adherence to the manual. Anxious to get it right, they present the material in the manual more or less verbatim and fail to adapt it to the specific needs, coping style, and readiness of the particular patient.

For example, even though skills training requires considerable activity and commitment from the patient, some therapists launch into it with patients who are still highly ambivalent or even resistant to treatment. It is important to remind such therapists that the manual is not a script but rather is a blueprint or set of guidelines that provides a clear set of goals and overall structure for the treatment. This often requires considerable familiarity with the didactic material so that therapists can alter the material for each patient and present it in a way that sounds fresh and dynamic. Patients should never be aware that the therapist is following a manual.

Speeding Through Material

Many of the skills-training concepts, while seemingly straightforward and based on common sense, are quite complex, particularly for patients who have cognitive impairment, dual diagnoses, or low baseline levels of coping skills. A common error made by many therapists is to fail to check back with patients to make sure they understand the material and how it might be applied to their current concerns. When this occurs, it often takes the form of a lecture rather than a dialog between the patient and therapist. Ideally, for each concept presented, therapists should stop and ask patients to provide an example or to describe the idea in their own words.

Overwhelming The Patient

Some therapists try to present to each patient all of the coping strategies in the order given in the manual. For many patients, this is overwhelming. Learning and feeling comfortable with one or two coping strategies is preferable to having only a surface understanding of several strategies. Similarly, if too much material is presented, the time available for practice is limited.

A good general tactic is to start by presenting one of the coping strategies the patient already uses and is familiar with, and then to introduce one or two more that are consistent with the patient's coping style. Also, new coping strategies can be introduced over two sessions.

Unclear Strategies

Therapists should attempt to teach general coping strategies using specific examples. However, some therapists use the coping strategies during the session but do not effectively communicate the basic underlying strategy. For example, they may effectively apply problemsolving strategies to patients' problems but fail to make the problemsolving steps explicit or assure that patients understand the concepts. It is essential that therapists use examples to teach the general, underlying

strategy, but it is equally important that the general strategy be made clear.

No Specific Examples

Just as some therapists do not effectively communicate underlying priniciples, others fail to make the coping skills material alive by using specific examples, based on material provided by the patient, to illus-trate their points. Skillful therapists make the transition from the patient's report of current concerns to the skill-focused section of the session by using specific examples.

> *"Earlier, you talked about how hard it was to deal with Joe and his continuing to use, and today, I thought we would talk about some ways you might be able to effectively say no to him. How does that sound?"*

Again, skills training should be presented as a dialog between the patient and therapist, with the therapist attempting to convey the message, "Here is something I think can help you with what you're struggling with right now."

Downplaying Practice Exercises

Although most patients do their practice exercises, and those who practice outside sessions have better cocaine outcomes, a number of therapists do not sufficiently attend to practice exercises. This takes the form of cursory review of completion of tasks in the beginning of sessions. It also leads to rushing through task assignments at the end of sessions, not being creative in task assignments, and letting practices slide if the patient does not do them. Often, this reflects a therapist's low expectations about the patient's attempting the exercise (and, often, low expectations about the patient's prognosis).

A review of the assignment provides some structure to the first part of the session and sends the message that outside practice is important. Generally, therapists who expect their patients to practice outside of sessions have patients who do so. Also, therapists and patients are by no means limited to the practice exercises suggested in the manual. In fact, it is preferable for patients to come up with their own extra-session tasks.

Abandoning The Manual With Difficult Patients

Many patients present with a range of complex and severe comorbid problems. Therapists may become overwhelmed by concurrent problems and drift from use of the manual in an attempt to address all the patient's problems. In such cases, therapists often take a less structured approach rather than the greater structure needed by the patient.

Generally, if the patient is sufficiently stable for outpatient therapy, the treatment described in the manual is adequate, even for fairly disturbed patients. CBT provides short-term therapy that includes the major attributes of an effective initial approach to cocaine abuse.

- A highly structured approach to treatment
- Prioritizing of concurrent problems
- Limited case management
- A primary focus on achieving abstinence

Exhibit 13: CBT Therapist Checklist

Study:____________ Subject:______________________________ Date:______________________

Site:_____________ Therapist:_______________ Week:___________Session:_________________

Please complete the following based on this session.

1. What session topic(s) was covered this week?
   - ☐ Introduction to treatment and CBT
   - ☐ Coping with craving
   - ☐ Shoring up motivation and commitment to stop
   - ☐ Refusal skills/assertiveness
   - ☐ Seemingly irrelevant decisions
   - ☐ All-purpose coping skills
   - ☐ Problemsolving skills
   - ☐ Case management
   - ☐ HIV risk reduction
   - ☐ Spouse/significant other session
   - ☐ Termination

2. Did a significant other attend the session?
   - ☐ Yes [Circle: spouse/partner, parent, sibling, friend, other]
   - ☐ No

KEY ITEMS: Circle number that applies.

3. To what extent did you discuss any *high-risk situations* the patient *encountered* since the last session and explore and coping skills used?

   1----------------2----------------3---------------4----------------5----------------6----------------7

no discussion	a little discussion	some discussion	considerable discussion	extensive discussion

4. To what extent did you attempt to *teach, model, rehearse, review, or discuss specific skills* (e.g. drug refusal, coping with craving, problemsolving skills)?

   1----------------2----------------3---------------4----------------5----------------6----------------7

not at all	a little	somewhat	considerably	extensively

   4A. Approximately *how many minutes* of this session were devoted to discussion of the scheduled manual topic? _____ minutes

5. To what extent did you encourage the patient to *anticipate any high-risk situations* that might be encountered before the next session and formulate appropriate *coping strategies* for such situations?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

6. To what extent did you *assess the patient's use of cocaine* or other substances since the last session?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

7. *Asessment of general functioning:* To what extent did you assess the patient's general level of functioning in major life spheres (e.g. work, intimate relationships, family life, social life)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

8. *Task assignment:* Did you develop one or more specific assignments for the patient to engage in between sessions?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

9. To what extent did you review the patient's *reactions to the last session's assignment*, explore or address any difficulties encountered in carrying out the assignment, *or provide a rationale* for homework, *or* reinforce the importance of extra-session practice of skills?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

10. Did the patient do the last session's homework?

- ☐ No, no attempt made
- ☐ Some attempt made
- ☐ Practice exercise completed adequately
- ☐ N/A, not assigned

11. Structure of session: To what extent did you follow the 20/20/20 rule?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

12. To what extent did you discuss or address the patient's *current commitment to abstinence*?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

13. To what extent did you discuss, review, or reformulate the patient's *goals for treatment*?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

14. To what extent did you encourage the patient to make a *commitment to change cocaine use*?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

15. *Eliciting patient concerns about cocaine use*: To what extent did you encourage the patient to explore the positive and negative consequences of cocaine use?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

16. *Ambivalence*: To what extent did you attempt to focus on the patient's ambivalence about changing the level of cocaine use?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

17. To what extent did you ask the patient to monitor, report, or evaluate *specific cognitions* associated with cocaine use or related problems?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

no discussion | a little discussion | some discussion | considerable discussion | extensive discussion

18. To what extent did you apply *problemsolving strategy* to a problem/issue raised during the session (this can include psychosocial problems other than cocaine use, as in the case man agement module)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

19. Did you *role-play* during this session?

☐ No
☐ Yes

20. To what extent did you attempt to *identify, assess, or prioritize* psychosocial problems other than cocaine and other substance abuse?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

21. To what extent did you attempt to *develop a support plan* with the patient?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

22. *Consistency of problem focus*: To what extent did you attempt to keep the session focused on prescribed activities (e.g., by redirecting dialog when it strayed off tasks, by organizing the session so defined tasks were covered)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all | a little | somewhat | considerably | extensively

23. *Agenda setting*: To what extent did you articulate and maintain an explicit agenda for the session?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

24. *Continuity/reference to past sessions*: To what extent did you refer to material discussed or experiences of past sessions as a means of building continuity across sessions (e.g., by stressing rehearsal and repetition as a means of mastering problems, buiding on past les sons)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

25. *Reflective listening*: To what extent did you communicate understanding of the patient's comments and concerns?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

26. *Empathy*: To what degree did you respond empathically to the patient (e.g., through a non-judgmental stance, showing genuine warmth and concern, helping the patient feel accepted in the relationship)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

27. *Family support*: To what extent did you inquire about or discuss the availability and nature of family or social support for the patient's involvement in treatment or efforts to become abstinent?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

28. *Termination*: To what extent did you discuss the termination of the therapy (e.g., encourage the patient to discuss feelings or thoughts about termination, discuss plans for further treat ment?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

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Exhibit 14: CBT Rating Scale

Study: _________ Subject:___________________________________ Date:___________________

Site:___________ Therapist:_____________________________ Week:__________ Session:______

Please complete the following based on this session:

1. What session topic(s) was covered this week?

   ☐ Introduction to treatment and CBT
   ☐ Coping with craving
   ☐ Shoring up motivation and commitment to stop
   ☐ Refusal skills/assertiveness
   ☐ Seemingly irrelevant decisions
   ☐ All-purpose coping skills
   ☐ Problemsolving skills
   ☐ Case management
   ☐ HIV risk reduction
   ☐ Spouse/significant other session
   ☐ Termination

2. Did a significant other attend the session?

   ☐ Yes [Circle: spouse/partner, parent, sibling, friend, other]
   ☐ No

Key Items: Circle number that applies:

3. To what extent did the therapist discuss any *high-risk situations* the patient *encountered* since the last session and explore and coping skills used?

1----------------2----------------3---------------4----------------5----------------6----------------7

no discussion	a little discussion	some discussion	considerable discussion	extensive discussion

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done	poor	fair	adequate	very good	excellent

4. To what extent did the therapist attempt to *teach, model, rehearse, review, or discuss specific skills* (e.g. drug refusal, coping with craving, problemsolving skills)?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all	a little	somewhat	considerably	extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done	poor	fair	adequate	very good	excellent

4A. Approximately *how many minutes* of this session were devoted to discussion of the sched uled manual topic? _____ minutes

5. To what extent did the therapist encourage the patient to *anticipate any high-risk situations* that might be encountered before the next session and formulate appropriate *coping strategies* for such situations?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

6. To what extent did the therapist *assess the patient's use of cocaine* or other substances since the last session?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

7. Asessment of general functioning: To what extent did the therapist assess the patient's general level of functioning in major life spheres (e.g. work, intimate relationships, family life, social life)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

8. Task assignment: Did the therapist develop one or more specific assignments for the patient to engage in between sessions?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

9. To what extent did the therapist review the patient's *reactions to the last session's assignment*, explore or address any difficulties encountered in carrying out the assignment, *or provide a rationale* for homework, *or* reinforce the importance of extra-session practice of skills?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

10. Did the patient do the last session's homework?

- ☐ No, no attempt made
- ☐ Some attempt made
- ☐ Practice exercise completed adequately
- ☐ N/A, not assigned

11. Structure of session: To what extent did the therapist follow the 20/20/20 rule?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all a little somewhat considerably extensively

12. To what extent did the therapist discuss or address the patient's *current commitment to abstinence*?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

13. To what extent did the therapist discuss, review, or reformulate the patient's *goals for treatment*?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

14. To what extent did the therapist encourage the patient to make a *commitment to change cocaine use*?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

15. Eliciting patient concerns about cocaine use: To what extent did the therapist encourage the patient to explore the positive and negative consequences of cocaine use?

1----------------2----------------3---------------4----------------5----------------6----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

16. *Ambivalence*: To what extent did the therapist attempt to focus on the patient's ambivalence about changing the level of cocaine use?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

17. To what extent did the therapist ask the patient to monitor, report, or evaluate *specific cognitions* associated with cocaine use or related problems?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

no discussion | a little discussion | some discussion | considerable discussion | extensive discussion

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

18. To what extent did the therapist apply *problemsolving strategy* to a problem/issue raised during the session (this can include psychosocial problems other than cocaine use, as in the case management module)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

19. Did the therapist *role-play* during this session?

☐ No
☐ Yes

20. To what extent did the therapist attempt to *identify, assess, or prioritize* psychosocial problems other than cocaine and other substance abuse?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

21. To what extent did the therapist attempt to *develop a support plan* with the patient?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

22. *Consistency of problem focus*: To what extent did the therapist attempt to keep the session focused on prescribed activities (e.g., by redirecting dialog when it strayed off tasks, by organizing the session so defined tasks were covered)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

23. *Agenda setting*: To what extent did the therapist articulate and maintain an explicit agenda for the session?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

24. *Continuity/reference to past sessions*: To what extent did the therapist refer to material discussed or experiences of past sessions as a means of building continuity across sessions (e.g., by stressing rehearsal and repetition as a means of mastering problems, buiding on past lessons)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

25. *Reflective listening*: To what extent did the therapist communicate understanding of the patient's comments and concerns?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

26. *Empathy*: To what degree did the therapist respond empathically to the patient (e.g., through a non-judgmental stance, showing genuine warmth and concern, helping the patient feel accepted in the relationship)?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0-------------1-------------2-------------3-------------4-------------5-------------6-------------7

not done poor fair adequate very good excellent

27. Family support: To what extent did the therapist inquire about or discuss the availability and nature of family or social support for the patient's involvement in treatment or efforts to become abstinent?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

28. Termination: To what extent did the therapist discuss the termination of the therapy (e.g., encourage the patient to discuss feelings or thoughts about termination, discuss plans for further treatment?

1-----------------2-----------------3----------------4-----------------5-----------------6-----------------7

not at all a little somewhat considerably extensively

Skill:

0--------------1--------------2--------------3--------------4--------------5--------------6--------------7

not done poor fair adequate very good excellent

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Appendix B: Clinical Research Supporting CBT

Cognitive-behavioral treatments are among the most frequently evaluated psychosocial approaches for the treatment of substance use disorders and have a comparatively strong level of empirical support (American Psychiatric Association 1995; General Accounting Office 1996; Holder et al. 1991). To date, more than 24 randomized controlled trials have been conducted among adult users of tobacco, alcohol, cocaine, marijuana, opiates, and other types of substances (Carroll 1996).

A review of this group of studies (Carroll 1996) suggests that, across substances of abuse but most strongly for tobacco, there is good evidence for the effectiveness of CBT compared with no-treatment controls. The most rigorous level of testing compared CBT with other active treatments (in effect asking the question, Is CBT more effective than other widely used treatments? rather than, Is CBT better than no treatment or minimal treatment?). These comparisons have led to less consistent results; some studies indicate the superiority of CBT, while others have shown CBT as comparable to but not more effective than other approaches. CBT may hold particular promise in reduction in the severity of relapses when they occur, enhanced durability of effects, and patient-treatment matching, particularly for patients at higher levels of impairment along such dimensions as psychopathology or dependence severity.

As this manual focuses specifically on CBT for cocaine abuse, what follows is a brief review of the series of studies conducted at the Substance Abuse Treatment Unit at Yale University, which has evaluated the CBT approach described in this manual with individuals meeting criteria for cocaine abuse or dependence. Moreover, because this manual is intended to provide practical strategies for therapists working with this population, this review focuses on what these studies may imply about means of more effectively applying these CBT strategies to cocaine-abusing populations.

CBT and Interpersonal Therapy

In our first study (Carroll et al. 1991), we directly compared CBT to another active psychotherapy, Interpersonal Psychotherapy or IPT (Klerman et al. 1984), a treatment that was then in regular use in our clinics. The strategy of comparing two active treatments addressed several methodological and ethical questions associated with no treatment or nonspecific control groups, such as differences in demand characteristics and credibility of the offered treatments; lack of control of common factors in the therapies; and the problem of subjecting severely impaired treatment-seeking individuals to minimal or no-treatment control conditions (Basham 1986; Kazdin 1986; O'Leary and Borkovec 1978).

In this, as in all of our studies on CBT, we used a variety of methodological features that were intended to protect the integrity of the treatments evaluated and control other sources of variability. Subjects were randomly assigned to treatments. All treatments were manual guided and implemented by doctoral-level therapists who received extensive training and ongoing supervision. Patient outcomes were assessed by independent evaluators who were blind to the treatment assignment.

In this 12-week outpatient study, 42 subjects who met DSM-III criteria for cocaine dependence were randomly assigned to either CBT or IPT. Those assigned to CBT were more likely than subjects in IPT to complete treatment (67 versus 38 percent), attain 3 or more continuous weeks of abstinence (57 versus 33 percent), and be continuously abstinent 4 or more weeks when they left treatment (43 versus 19 percent).

Although the sample size was small and these differences did not reach statistical significance, significant differences by treatment group did emerge when subjects were stratified by severity of cocaine abuse. For example, among the subgroup of more severe cocaine users, subjects who received CBT were significantly more likely to achieve abstinence than those assigned to IPT (54 versus 9 percent). Among the subgroups of subjects with lower severity of cocaine abuse, outcomes were comparable for both treatments (Carroll et al. 1991). These findings suggest that more severely dependent cocaine abusers may require the greater structure and direction offered by CBT, which emphasizes learning and rehearsal of specific strategies to interrupt and control cocaine use, whereas the specific type of treatment offered may be less important for less severely dependent cocaine abusers.

CBT and Clinical Management

Our next study was more complex because it involved both psychotherapy

and pharmacotherapy (Carroll et al. 1994b). This time we compared CBT to Clinical Management (CM) (Fawcett et al. 1987), a nonspecific psychotherapy that satisfied many of the requirements of a control condition.

- CM provided common elements of a psychotherapeutic relationship, including a supportive doctor-patient relationship, education, empa thy, and the instillation of hope, without providing active ingredients specific to relapse prevention.
- CM provided medication management as well as an opportunity to monitor patients' clinical status and treatment response.
- CM provided a convincing therapeutic rationale to foster greater re tention in the protocol and compliance with medication.

It is important to note that these features, although desirable in a psychotherapy control condition because they address many ethical and methodological concerns, may be powerfully therapeutic on their own and thus also serve as a more stringent test of active psychotherapies than would alternatives such as no-treatment or waiting-list control conditions. All subjects received a medication, either desipramine (which was the most promising medication for cocaine dependence at the time) or a placebo. In this study, 121 individuals meeting DSM-III-R criteria for cocaine dependence were randomly assigned to one of four treatment conditions:

- CBT in combination with desipramine
- CBT plus placebo
- CM plus desipramine
- CM plus placebo

We hypothesized that both CBT and desipramine would be more effective than CM and placebo, respectively. Moreover, this design permitted detection of combined effects of psychotherapy and pharmacotherapy if these proved to be sufficiently strong.

After 12 weeks of treatment, subjects in all four groups showed significant reductions in cocaine use as well as improvement in several other problem areas. Significant main effects for medication or psychotherapy type were not found; that is, cocaine outcomes were comparable whether the patient received CBT or CM, or desipramine or placebo.

We did find an interaction effect similar to that in our first study. That is, baseline severity of cocaine abuse was found to interact differently with the two forms of psychotherapy. Patients who were more severely dependent on cocaine stayed in treatment longer, attained longer

periods of abstinence, and had fewer urine screens positive for cocaine when treated with CBT compared with CM. Again, this suggests that abusers with more intense involvement with cocaine may benefit from the additional structure, intensity, or didactic content of CBT, which focuses specifically on reducing access to cocaine and avoidance of high-risk situations for relapse. These results again suggest that low- intensity approaches may be effective for individuals less severely dependent on cocaine.

Additional effects were found in subsequent analyses of data from the study comparing CBT to CM. However, because these findings were based on exploratory, post hoc analyses, they should be interpreted with caution.

CBT and Depressive Symptoms

Because of the clinical importance of affective disorders among cocaine abusers, we evaluated the role of depressive symptoms in response to study treatments (Carroll et al. 1995). We found that CBT was more effective than CM in retaining depressed subjects in treatment. There was also some evidence that it was more effective in reducing cocaine use. This may have occurred because the depressed subjects experienced more distress, which may have enhanced their motivation for treatment, availability for psychotherapy, and ability to implement and benefit from coping skills.

On the other hand, there was no evidence that CBT was more effective than CM in reducing depressive symptoms. While cognitive-behavioral approaches to treating depression have generally been effective and comparable to antidepressant medication in reducing depressive symptoms (Elkin et al. 1989; Simons et al. 1986), our CBT approach did not specifically address depressive symptoms as a treatment target or convey specific strategies for managing coexistent depression. Rather, we focused almost exclusively on helping patients develop strategies to reduce their cocaine use during the early stages of treatment, although we did address the relationship between negative affect and cocaine use. A possible implication of these findings is the need for CBT therapists to more explicitly address depressive symptoms with patients who experience them (Carroll et al. 1995).

Reductions in cocaine use and depression were closely associated throughout treatment, although the direction of these changes was not clear. One possible explanation for this finding is that reduction in depressive symptoms leads to reduction in cocaine use by reducing distress, thus enabling patients to make better use of their coping resources, become more available for psychotherapy, or reduce their possible self-medication of depressive symptoms with cocaine. Conversely, reduction of cocaine use might lead to improvements in depressive symptoms by decreasing depression associated with cocaine

withdrawal, reestablishing normal sleep and eating patterns, and reducing exposure to other negative consequences of cocaine abuse.

CBT and Alexithymia

Alexithymia refers to a cognitive-affective style that results in specific disturbances in the expression and processing of emotions. Literally meaning "no words for feelings," the term was coined by Nemiah and Sifneos (1970) to refer to psychosomatic patients who exhibited four specific affective/cognitive impairments:

- Difficulty in verbalizing affect states
- A tendency to focus primarily on the somatic/physiological compo nents of affective arousal
- An impoverished fantasy life
- A highly concrete cognitive style

We evaluated the rates and significance of alexithymia among cocaine abusers in our CBT and CM comparative study. We found that 39 percent of the cocaine abusers scored in the alexithymic range, based on responses to the Toronto Alexithymia Scale (Taylor et al. 1985). While alexithymic subjects did not differ from nonalexithymic patients with respect to overall treatment retention or outcome, alexithymic subjects did respond differently to psychotherapy. They had better retention and cocaine outcomes when treated with CM, whereas nonalexithymic subjects had better outcomes when treated with CBT.

The finding that cocaine abusers with higher alexithymia scores responded more poorly to CBT has several implications. Patients are asked to identify and articulate internal affect and cognitive states associated with cocaine use - a task particularly difficult for alexithymic patients. CBT encourages patients to identify, monitor, and analyze their cravings, negative affects, and many subtle fleeting cognitions. In essence, it requires patients to have good access to their internal world. These demands may be overwhelming for the alexithymic subjects. For example, one patient, as part of a self-monitoring assignment, was asked to note his feelings and their intensity in response to a variety of situations. Rather than describing feelings such as cheerful, irritable, or bored, he consistently wrote either yes or no, suggesting he had some awareness of strong affects, but little ability to articulate them or relate them to his drug use. Therapists may find it helpful to provide a preparatory phase before starting the monitoring of high-risk situations and skills training to prevent such patients from being overwhelmed and to help them identify their feelings and affect states.

One-Year Followup

Some of the most intriguing findings from the CBT/CM comparative study emerged from the 1-year followup (Carroll et al. 1994a). As a group, subjects' cocaine abuse decreased overall or remained stable

with respect to posttreatment levels, rather than rebounding to pretreatment levels. More importantly, there was consistent evidence of delayed effects for CBT compared with CM for cocaine outcomes, even when we controlled for the proportion of subjects who received some nonstudy treatment during the followup period. After leaving the study treatments, subjects who had received CBT continued to reduce their cocaine abuse, whereas cocaine abuse remained relatively stable in the CM group. These results may be related to delayed emergence of specific effects of CBT. During the acute phase of CBT and CM treatment, subjects in all groups received a variety of nonspecific interventions, including weekly urine monitoring, frequent assessment of cocaine use and other symptoms, support and encouragement from therapists and research staff, and positive expectations for treatment effects. These common factors may have been powerfully therapeutic and overwhelmed treatment-specific effects.

The cessation of these nonspecific interventions may have created the conditions under which the more durable and specific effects of CBT had an opportunity to emerge. CBT is intended to impart generalizable coping skills that can be implemented long after patients leave treatment, while supportive treatments may provide patients with fewer enduring resources (Carroll et al. 1994b).

In other clinical populations, followup studies of cognitive-behavioral treatments have indicated the durability of their effects with some consistency. For example, cognitive-behavioral treatments have been found to be superior or comparable to acute or continued tricyclic pharmacotherapy in preventing relapse of depressive and panic episodes (Miller et al. 1989; Simons et al. 1986). Moreover, some studies (Beutler et al. 1987), including a recent one with alcoholic subjects (O'Malley et al. 1994), have shown continuing improvement or delayed emergence of effects during followup after cognitive-behavioral therapy.

CBT and Alcoholic Cocaine Abusers

Our experience pointed to the significance of alcohol abuse and dependence, which occurs quite frequently among clinical populations of cocaine abusers. In a survey of psychiatric disorders among 298 cocaine abusers, we found that alcohol dependence was the most frequently diagnosed comorbid disorder, with 62 percent of the sample meeting RDC criteria for lifetime alcohol dependence and almost 30 percent meeting criteria for current use (Carroll et al. 1993a). This is consistent with reports from large-scale community samples, such as the Epidemiological Catchment Area study, which found that 85 percent of individuals who met criteria for cocaine dependence also met

criteria for alcohol abuse or dependence, a rate far higher than that of alcoholism among those meeting criteria for heroin-opioid (65 percent), cannabis (45 percent), or sedative-hypnotic-anxiolytic (71 percent) dependence (Regier et al. 1990). More importantly, comorbid alcohol-cocaine dependence has been associated with more severe drug dependence, poorer retention in treatment, and poorer outcome with respect to either disorder alone (Brady et al. 1995; Carroll et al. 1993b; Walsh et al. 1991).

We then evaluated CBT and other psychosocial and pharmacologic treatments for this large and challenging population (Carroll et al. in press). We compared CBT to two other treatments, CM and Twelve-Step Facilitation (TSF) (Nowinski et al. 1992), an individual approach consistent with the 12 steps of Alcoholics Anonymous (AA) which has the primary goal of fostering the patient's lasting involvement with the traditional fellowship activities of AA or Cocaine Anonymous. We also evaluated disulfiram (Antabuse) in this study because of pilot data that suggested that reduction in alcohol use through disulfiram may be associated with reductions in cocaine use as well (Carroll et al. 1993c). Preliminary data from this study suggest that the two active psychotherapies - CBT and TSF - were more effective than CM in fostering consecutive periods of abstinence from cocaine and abstinence from both cocaine and alcohol concurrently. The two active psychotherapies also yielded a higher percentage of cocaine-free urine specimens. In addition, CBT and TSF, compared with CM, were associated with significant reductions in cocaine use across time, particularly for subjects who received at least minimal exposure to treatment.

Finding that CBT and TSF were more effective than the psychotherapy control condition underlines the important role that well-defined, competently delivered psychosocial interventions play in the treatment of cocaine dependence. Because CM provided a control for general, nonspecific aspects of psychotherapy (including a supportive doctor-patient relationship), this study provided a rigorous test of the specific, active ingredients of CBT and TSF above and beyond simple support and attention.

The finding that CBT was more effective than CM in reducing cocaine use contrasts with the finding from our previous clinical trial, which did not show overall differences between CBT and CM (Carroll et al. 1994b). However, in that study, CBT was found to be more effective than CM for the subgroup of subjects who were more severely dependent on cocaine. Again, because concurrent cocaine-alcohol dependence has been associated with higher severity of cocaine use and poorer prognosis with respect to cocaine dependence alone, subjects in this study may be similar to the more severely dependent subsample from our earlier study. Thus, findings from these two studies taken together may suggest that more severe groups of cocaine-dependent individuals

differentially benefit more from the comparatively intensive active ingredients of CBT or TSF than from the supportive but less structured and less directive CM, which also makes fewer demands on patients to carry out assignments outside of sessions.

It is also important to note that study findings did not show significant differences between the two active psychotherapies, TSF and CBT, in either cocaine or alcohol outcomes. This suggests that these two forms of treatment were equally effective with this population in this study. The comparable outcomes occurred despite clear differences in the theoretical basis of these treatments, the specific interventions used by the therapists (as detected by independent raters blind to subjects' treatment assignments), and the evidence that subjects demonstrated specific behavioral changes consistent with the theoretical mechanisms of action of their study treatments (changes in coping skills in CBT, more AA involvement in TSF). This is consistent with other recent research with cocaine-dependent samples (Wells et al. 1994; Carroll et al. in press).

References

American Psychiatric Association, Work Group on Substance Use Disor ders. Practice guidelines for the treatment of patients with substance use disorders: Alcohol, cocaine, opioids. *Am J Psychiatry* 152(suppl):2-59, 1995.

Azrin, N.H. Improvements in the community-reinforcement approach to alcoholism. *Behav Res Ther* 14(5):339-348, 1976.

Basham, R.B. Scientific and practical advantages of comparative design in psychotherapy outcome research. *J Consult Clin Psychol* 54(1):88-94, 1986.

Beck, A.T.; Ward, C.H.; Mendelson, M.; Mock, J.; and Erbaugh, J. An in ventory for measuring depression. *Arch Gen Psychiatry* 4:562-571, 1961.

Beck, A.T.; Wright, F.D.; Newman, C.F.; and Liese, B.S. "Cognitive Therapy of Cocaine Abuse: A Treatment Manual." Unpublished manuscript, 1991.

Beutler, L.E.; Scogin, F.; Kirkish, P.; Schretlen, D.; Corbishley, A.; Hamblin, D.; Meredith, K.; Potter, R.; Bamford, C.R.; and Levenson, A.I. Group cognitive therapy and alprazolam in the treatment of depression in older adults. *J Consult Clin Psychol* 55(4):550-556, 1987.

Brady, K.T.; Sonne, E.; Randall, C.L.; Adinoff, B.; and Malcolm, R. Fea tures of cocaine dependence with concurrent alcohol abuse. *Drug Alcohol Depend* 39(1):69-71, 1995.

Carroll, K.M. Relapse prevention as a psychosocial treatment approach: A review of controlled clinical trials. *Exp Clin Psychopharmacol* 4:46-54, 1996.

Carroll, K.M.; Nich, C.; Ball, S.A.; McCance, E.; and Rounsaville, B.J. Treatment of cocaine and alcohol dependence with psychotherapy and disulfiram. *Addiction*, in press.

Carroll, K.M.; Nich, C.; and Rounsaville, B.J. Differential symptom reduc tion in depressed cocaine abusers treated with psychotherapy and pharmacotherapy. *J Nerv Ment Dis* 183(4):251-259, 1995.

Carroll, K.M., and O'Malley, S.S. "Compliance Enhancement: A Manual for the Psychopharmacotherapy of Alcohol Dependence." Unpub lished manuscript, 1996.

Carroll, K.M.; Power, M.E.; Bryant, K.J.; and Rounsaville, B.J. One-year follow-up status of treatment-seeking cocaine abusers: Psychopathololgy

and dependence severity as predictors of outcome. *J Nerv Ment Dis* 181(2):71-79, 1993b.

Carroll, K.M.; Rounsaville, B.J.; and Bryant, K.J. Alcoholism in treatment-seeking cocaine abusers: Clinical and prognostic significance. *J Stud ies Alcohol* 54(2):199-208, 1993a.

Carroll, K.M.; Rounsaville, B.J.; and Gawin, F.H. A comparative trial of psychotherapies for ambulatory cocaine abusers: Relapse prevention and interpersonal psychotherapy. *Am J Drug Alcohol Abuse* 17(3):229-247, 1991.

Carroll, K.M.; Rounsaville, B.J.; Gordon, L.T.; Nich, C.; Jatlow, P.M.; Bisighini, R.M.; and Gawin, F.H. Psychotherapy and pharmaco therapy for ambulatory cocaine abusers. *Arch Gen Psychiatry* 51(3):177-187, 1994b.

Carroll, K.M.; Rounsaville, B.J.; Nich, C.; Gordon, L.T.; Wirtz, P.W.; and Gawin, F.H. One year follow-up of psychotherapy and pharmaco therapy for cocaine dependence: Delayed emergence of psycho therapy effects. *Arch Gen Psychiatry* 51(12):989-997, 1994a.

Carroll, K.M.; Ziedonis, D.; O'Malley, S.S.; McCance-Katz, E.; Gordon, L.; and Rounsaville, B.J. Pharmacologic interventions for abusers of alcohol and cocaine: A pilot study of disulfiram versus naltrexone. *Am J Addict* 2:77-79, 1993c.

Castonguay, L.G. "Common factors" and "nonspecific variables": Clarifi cation of the two concepts and recommendations for research. *J Psychother Integration* 3:267-286, 1993.

Chaney, E.F.; O'Leary, M.R.; and Marlatt, G.A. Skill training with alcohol ics. *J Consult Clin Psychol* 46:1092-1104, 1978. Condiotte, M.M., and Lichtenstein, E. Self-efficacy and relapse in smoking cessation programs. *JCCP* 49:648-658, 1981.

Cooney, N.L.; Kadden, R.M.; and Litt, M.D. A comparison of methods for assessing sociopathy in male and female alcoholics. *J Studies Alco hol* 51:42-48, 1990.

Derogatis, L.R.; Lipman, R.S.; and Covi, L. SCL-90: An outpatient psychi atric rating scale - Preliminary report. *Psychopharmacol Bull* 9(1):13-28, 1973.

DiClemente, C.C., and Hughes, S.O. Stages of change profiles in outpatient alcoholism treatment. *J Subst Abuse* 2(2):217-235, 1990.

D'Zurilla, T.J., and Goldfried, M.R. Problem-solving and behavior modifi cation. *J Abnorm Psychol* 78(1):107-126, 1971.

Elkin, I.; Parloff, M.B.; Hadley, S.W.; and Autry, J.H. NIMH treatment of depression collaborative research program: Background and research plan. *Arch Gen Psychiatry* 42:305-316, 1985. Elkin, I.; Shea, M.T.; Watkins, J.T.; Imber, S.D.; Sotsky, S.M.; Collins, J.F.; Glass, D.R.; Pilkonis, P.A.; Leber, W.R.; Docherty, J.P.; Fiester, S.J.; and Parloff, M.B. National Institute of Mental Health Treatment of Depression Collaborative Research Program: General effectiveness of treatments. *Arch Gen Psychiatry* 46(11):971-982, 1989.

Fawcett, J.; Epstein, P.; Fiester, S.J.; Elkin, I.; and Autry, J.H. Clinical man agement - imipramine/placebo administration manual: NIMH

Treatment of Depression Collaborative Research Program. *Psychopharmacol Bull* 23(2):309-324, 1987.

First, M.B.; Spitzer, R.L.; Gibbon, M.; Williams, J.B.W.; and Gibbon, M. *Structured Clinical Interview for DSM-IV Axis I Disorders. Patient Edition* (SCID-I/P, Version 2.0). Biometrics Research Department, New York State Psychiatric Institute, 722 West 168th Street, New York, NY 10032, 1995.

General Accounting Office. *Cocaine Treatment: Early Results From Vari ous Approaches*. Washington, DC: GAO, 1996.

Hall, S.M.; Havassy, B.E.; and Wasserman, D.A. Effects of commitment to abstinence, positive moods, stress, and coping on relapse to cocaine use. *J Consult Clin Psychol* 59(4):526-532, 1991.

Hamilton, M. A rating scale for depression. *J Neurolog Neurosurg Psychia try* 23:56-62, 1960.

Higgins, S.T.; Budney, A.J.; Bickel, W.K.; Foerg, F.E.; Donham, R.; and Badger, G.J. Incentives improve outcome in outpatient behavioral treatment of cocaine dependence. *Arch Gen Psychiatry* 51(7):568-576, 1994.

Higgins, S.T.; Delaney, D.D.; Budney, A.J.; Bickel, W.K.; Hughes, J.R.; Foerg, F.; and Fenwick, J.W. A behavioral approach to achieving initial co caine abstinence. *Am J Psychiatry* 148(9):1218-1224, 1991.

Holder, H.D.; Longabaugh, R.; Miller, W.R.; and Rubonis, A.V. The cost effectiveness of treatment for alcohol problems: A first approxima tion. *J Studies Alcohol* 52:517-540, 1991.

Ito, J.R.; McNair, L.; Donovan, D.M.; and Marlatt, G.A. *"Relapse Preven tion for Alcoholism Aftercare: Treatment Manual."* Health Services Research and Development Service, VA Medical Center, Seattle, WA, 1984. Unpublished manuscript.

Jaffe, A.; Brown, J.; Korner, P.; and Witte, G. *"Relapse prevention for the Treatment of Problem Drinking: A Manual for Therapists and Pa tients."* Yale University School of Medicine. New Haven, CT; Uni versity of Connecticut Health Center, Farmington, CT, 1988. Un published manuscript.

Kadden, R.; Carroll, K.M.; Donovan, D.; Cooney, N.; Monti, P.; Abrams, D.; Litt, M.; and Hester, R. Cognitive-Behavioral Coping Skills Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence. *NIAAA Project MATCH Monograph Series Vol. 3*. DHHS Pub. No. (ADM)92-1895. Rockville, MD: National Institute on Alcohol Abuse and Alcohol ism, 1992.

Kadden, R.M.; Cooney, N.L.; Getter, H.; and Litt, M.D. Matching alcohol ics to coping skills or interactional therapies: Posttreatment results. *J Consult Clin Psychol* 57:698-704, 1989.

Kazdin, A.E. Comparative outcome studies of psychotherapy: Methodological issues and strategies. *J Consult Clin Psychol* 54(1):95-105, 1986.

Klerman, G.L.; Weissman, M.M.; Rounsaville, B.J.; and Chevron, E.S.

Interpersonal Psychotherapy of Depression. New York: Basic Books, 1984.

Luborsky, L. *Principles of Psychoanalytic Psychotherapy: A Manual for Supportive-Expressive Treatment.* New York: Basic Books, 1984.

Marlatt, G.A., and Gordon, J.R., eds. *Relapse Prevention: Maintenance Strat egies in the Treatment of Addictive Behaviors*. New York: Guilford, 1985.

McCrady, B.S., and Epstein, E.E. Marital therapy in the treatment of alcohol problems. In: Jacobson, N.S., and Gurman, A.S., eds. *Clinical Hand book of Couples Therapy*. New York: Guilford, 1995. pp. 369-393.

McLellan, A.T.; Kushner, H.; Metzger, D.; Peters, R.; Smith, I.; Grissom, G.; Pettinati, H.; and Argeriou, M. The fifth edition of the Addiction Severity Index. *J Subst Abuse Treat* 9(3):199-213, 1992.

Meyers, R.J., and Smith, J.E. *Clinical Guide to Alcohol Treatment: The Com munity Reinforcement Approach*. New York: Guilford, 1995.

Metzger, D.S.; DePhilippis, D.; Druley, P.; O'Brien, C.P.; McLellan, A.T.; Williams, J.; Navaline, H.; Dyanick, S.; and Woody, G.E. The impact of HIV testing on risk for AIDS behaviors. In: Harris, L., ed. *Probl ems of Drug Dependence 1991: Proceedings of the 53rd Annual Sci entific Meeting*. NIDA Research Monograph, Series No. 119. Rockville, MD: National Institute on Drug Abuse, 1992. pp. 297-298.

Miller, I.W.; Norman, W.H.; and Keitner, G.I. Cognitive-behavioral treat ment of depressed inpatients: Six- and twelve-month follow-up. *Am J Psychiatry* 146(10):1274-1279, 1989.

Miller, W.R., and Rollnick, S. Motivational Interviewing: Preparing People to Change Addictive Behavior. New York: Guilford, 1992.

Miller, W.R.; Zweben, A.; DiClemente, C.C.; and Rychtarik, R.G. Motiva tional Enhancement Therapy Manual: A Clinical Research Guide for Therapists Treating Individuals with Alcohol Abuse and Dependence. *NIAAA Project MATCH Monograph Series, Volume 2*. DHHS Pub. No. (ADM)92-1894. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1992.

Monti, P.M.; Abrams, D.B.; Kadden, R.M.; and Cooney, N.L. *Treating Alco hol Dependence: A Coping Skills Training Guide in the Treatment of Alcoholism*. New York: Guilford, 1989.

Nemiah, J.C., and Sifneos, P.E. Affect and fantasy in patients with psychoso matic disorders. In: Hill, O.W., ed. *Modern Trends in Psychosomatic Medicine. Vol. 2.* London: Butterworth, 1970. pp. 26-34.

Nowinski, J.; Baker, S.; and Carroll, K.M. Twelve-Step Facilitation Therapy Manual: A Clinical Research Guide for Therapists Treating Individu als with Alcohol Abuse and Dependence. *NIAAA Project MATCH Monograph Series Vol. 1*. DHHS Pub. No. (ADM)92-1893. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1992.

O'Farrell, T.J., ed. *Treating Alcohol Problems: Marital and Family Inter ventions*. New York: Guilford Press, 1993.

O'Leary, K.D., and Borkovec, T.D. Conceptual, methodological, and ethical problems of placebo groups in psychotherapy research. *Am Psychol* 33(9):821-830, 1978.

O'Malley, S.S.; Jaffe, A.J.; Chang, G.; Rode, S.; Schottenfeld, R.S.; Meyer. R.E.; and Rounsaville, B.J. Six-month follow-up of naltrexone and coping skills therapy for alcohol dependence. *Arch Gen Psychiatry* 53:217-224, 1994.

Prochaska, J.O.; DiClemente, C.C.; and Norcross, J.C. In search of how people change: Applications to addictive behaviors. *Am Psychol* 47(9):1102-1114, 1992.

Project MATCH Research Group. Project MATCH (Matching Alcoholism Treatment to Client Heterogeneity): Rationale and methods for a multisite clinical trial matching patients to alcoholism treatment. *Al cohol Clin Exp Res* 17(6):1130-1145, 1993.

Regier, D.A.; Farmer, M.E.; Rae, D.S.; Locke, B.Z.; Keith, S.J.; Judd, L.L.; and Goodwin, F.K. Comorbidity of mental disorders with alcohol and other drug use. Results from the Epidemiological Catchment Area (ECA) Study. *JAMA* 264(19):2511-2518, 1990.

Rounsaville, B.J., and Carroll, K.M. Individual psychotherapy for drug abus ers. In: Lowinsohn, J.H.; Ruiz, P.; and Millman, R.B., eds. Compre hensive *Textbook of Substance Abuse*. Second Edition. New York: Williams and Wilkins, 1992. pp. 496-508.

Rounsaville, B.J., and Carroll, K.M. Interpersonal psychotherapy for drug users. In: Klerman, G.L., and Weissman, M.M., eds. New Applica tions of Interpersonal Psychotherapy. Washington, DC: *American Psy chiatric Association Press*, 1993. pp. 319-352.

Rozenzweig, S. Some implicit common factors in diverse methods of psy chotherapy. *Am J Orthopsychiatry* 6:412-415, 1936.

Simons, A.D.; Murphy, G.E.; Levine, J.L.; and Wetzel, R.D. Cognitive therapy and pharmacotherapy for depression: Sustained improvement over one year. *Arch Gen Psychiatry* 43(1):43-48, 1986.

Taylor, G.J.; Ryan, D.; and Bagby, R.M. Toward the development of a new self-report alexithymia scale. *Psychother Psychosom* 44(4):191-199, 1985.

Walsh, D.C.; Hingson, R.W.; Merrigan, D.M.; Levenson, S.M.; Cupples, L.A.; Heeren, T.; Coffman, G.A.; Becker, C.A.; Barker, T.A.; Hamilton, S.K.; McGuire, T.G.; and Kelly, C.A. A randomized trial of treatment options for alcohol-abusing workers. *N Engl J Med* 325(11):775-782, 1991.

Wells, E.A.; Peterson, P.L.; Gainey, R.R.; Hawkins, J.D.; and Catalano, R.F. Outpatient treatment for cocaine abuse: A controlled comparison of relapse prevention and twelve-step approaches. *Am J Drug Alcohol Abuse* 20(1):1-17, 1994.