

## ***New Advances in Alcoholism Treatment***

More than 700,000 Americans receive alcoholism treatment on any given day (1). However, the techniques of alcoholism therapy have traditionally been based on clinical experience and intuition, with little rigorous validation of their effectiveness (2). Over the past 20 years, modern methods of evaluating medical therapies have been increasingly applied to alcoholism treatment. These methods include the use of control groups for comparison purposes, random assignment of study participants to different treatment groups and, to the greatest extent possible, followup of all patients who entered the study (3). This issue focuses on the results of recent controlled clinical studies on the effectiveness of self-help groups, psychosocial approaches, and medications in achieving and maintaining abstinence.

### **Twelve-Step Self-Help Programs**

Self-help groups are the most commonly sought source of help for alcohol-related problems (4). Alcoholics Anonymous (AA), one of the most commonly known self-help groups, outlines 12 consecutive activities, or steps, that alcoholics should achieve during the recovery process. Alcoholics can become involved with AA before entering professional treatment, as a part of it, or as aftercare following professional treatment. Although AA appears to produce positive outcomes in many of its members (5,6), its efficacy has rarely been assessed in randomized clinical trials (7).

One randomized study of patients entering employee assistance programs compared inpatient treatment combined with AA with referral to AA alone (8). This study found that inpatient treatment, a combination of professional treatment and AA, will achieve better results for more people than AA alone (8). Ouimette and colleagues (9), as part of a nonrandomized observational study involving 3,000 patients in Department of Veterans Affairs hospitals, compared

predominantly 12-step programs with predominantly cognitive-behavioral programs as well as with courses of therapy that combined both approaches. In cognitive-behavioral therapy (CBT), the therapist helps the client learn new skills to cope with problems and to change harmful behavior patterns, such as alcohol abuse. One year after completion of treatment, the three types of programs had produced comparable improvements on measures of alcohol consumption and related problems. However, participants in the 12-step programs achieved more sustained abstinence and higher rates of employment compared with participants in the other two programs (9). Interpretation of these results is complicated by the nonrandom assignment of patients to the different treatment types (9).

The beneficial effects of AA may be attributable in part to the replacement of the participant's social network of drinking friends with a fellowship of AA members who can provide motivation and support for maintaining abstinence (4,10). In addition, AA's approach often results in the development of coping skills, many of which are similar to those taught in more structured psychosocial treatment settings, thereby leading to reductions in alcohol consumption (4,11).

## **Psychosocial Therapy**

The following sections deal with selected recent approaches or considerations relevant to the psychosocial treatment of alcohol-related problems.

### **Motivational Enhancement Therapy**

Developed specifically for Project MATCH, 1 motivational enhancement therapy (MET) begins with the assumption that the responsibility and capacity for change lie within the client (12,13). The therapist begins by providing individualized feedback about the effects of the patient's drinking. Working closely together, therapist and patient explore the benefits of abstinence, review treatment options, and design a plan to implement treatment goals. Analysis suggests that MET may be one of the most cost-effective of available treatment methods (14). In one study (15), the motivational interviewing technique—a key component of MET—was shown to

overcome patients' reluctance to enter treatment more effectively than did conventional techniques.

### **Couples Therapy**

Evidence indicates that involvement of a nonalcoholic spouse in a treatment program can improve patient participation rates and increase the likelihood that the patient will alter drinking behavior after treatment ends (16).

There are various approaches to marital family therapy. Behavioral-marital therapy (BMT) combines a focus on drinking with efforts to strengthen the marital relationship through shared activities and the teaching of communication and conflict evaluation skills (17). O'Farrell and colleagues (18) combined couples therapy with the learning and rehearsal of a relapse prevention plan. Among alcoholics with severe marital and drinking problems, the combination approach produced improved marital relations and higher abstinence rates through 30 months of followup compared with patients undergoing only BMT (18,19).

### **Brief Interventions**

Many persons with alcohol-related problems receive counseling from primary care physicians or nursing staff in the context of five or fewer standard office visits (20). Such treatment, known as brief intervention, generally consists of straightforward information on the negative consequences of alcohol consumption along with practical advice on strategies and community resources to achieve moderation or abstinence (21,22). Two controlled trials in the United States and Canada demonstrated that this approach reduced drinking (23,24), alcohol-related problems (24), and patients' use of health care services (23). Most brief interventions are designed to help those at risk for developing alcohol-related problems to reduce their alcohol consumption. Alcohol-dependent patients are encouraged to enter specialized treatment with the goal of complete abstinence (21).

The brief intervention approach has also been successfully applied outside the primary care setting. Evidence suggests that 25 to 40 percent of trauma patients may be alcohol dependent (25). Gentilello

and colleagues (26) conducted a randomized controlled study among patients in a trauma center who had detectable blood alcohol levels at the time of admission. The researchers found that a single motivational interview at or near the time of discharge reduced drinking levels and re-admission for trauma during 6 months of followup (26). Monti and colleagues (27) conducted a similar randomized controlled study among youth ages 18 to 19 admitted to an emergency room with alcohol-related injuries. After 6 months, although all participants had decreased their alcohol consumption, the group receiving brief intervention had a significantly lower incidence of drinking and driving, traffic violations, alcohol-related injuries, and alcohol-related problems (27).

Brief intervention among freshman college students previously identified as being at high risk for harmful consequences of heavy drinking has been shown to result in a significant decline in alcohol-related problems (28,29).

### **Treating Alcohol and Nicotine Addiction Together**

Nicotine and alcohol interact in the brain, each drug possibly affecting vulnerability to dependence on the other (30). Consequently, some researchers postulate that treating both addictions simultaneously might be an effective, even essential, way to help reduce dependence on both. A recent study by Hurt and colleagues (31) showed that treatment for nicotine dependence did not interfere with abstinence from alcohol or other drugs. Furthermore, such concurrent treatment not only enhanced cessation from smoking, it also did not induce already abstinent smokers to relapse to drinking.

### **Pharmacotherapy**

More recently, research has focused on the development of medications for blocking alcohol-brain interactions that might promote alcoholism. In 1995 the U.S. Food and Drug Administration approved the use of the medication naltrexone (ReVia™) as an aid in preventing relapse among recovering alcoholics who are simultaneously undergoing psychosocial therapy. This approval was based largely on two randomized controlled studies that showed decreased alcohol consumption for longer periods in naltrexone-

treated patients compared with those who received a placebo (32,33).

As is the case with all diseases, however, naltrexone is only effective if taken on a regular basis (34). Like all medications, naltrexone has side effects. One recent study reported a high rate of side effects, which probably explains why this study, in contrast with most other studies, failed to find naltrexone effective (35).

Acamprosate showed promise in treating alcoholism in several randomized controlled European trials involving more than 3,000 alcoholic subjects who were also undergoing psychosocial treatment. Analysis of combined results showed that more than twice as many alcoholics receiving acamprosate remained abstinent up to 1 year compared with subjects receiving psychosocial treatment alone (36).

Research suggests that some medications may be more effective for certain types of alcoholics. For example, when ondansetron (Zofran®) was combined with psychotherapy, alcoholics who had begun drinking heavily before age 25 (i.e., early-onset alcoholics) decreased their alcohol consumption and increased their number of abstinent days, but later onset alcoholics did not (37). Sertraline (Zoloft®), in contrast, appears to reduce drinking in late-onset, but not early-onset, alcoholics (38). However, fluoxetine (Prozac®), a medication related to sertraline, has not been found to be effective in late-onset alcoholism (39).

In conclusion, research supports the concept of using medications as an adjunct to the psychosocial therapy of alcohol abuse and alcoholism. However, additional clinical trials are required to identify those patients most likely to benefit from such an approach, to determine the most appropriate medications for different patient types, to establish optimal dosages, and to develop strategies for enhancing patient compliance with medication regimens.

### **New Advances in Alcoholism Treatment: A Commentary by NIAAA Director Enoch Gordis, M.D.**

Alcoholism clinicians have access today to a wide range of treatment

options for their patients. Some of these treatments, such as 12-step self-help programs, have been around a long time. Others—including brief intervention and various therapies borrowed from other fields, such as motivational enhancement therapy and couples therapy—are relatively new concepts that have been shown to be effective in reducing the risk for alcohol-related problems. The key change that has occurred, of course, is the advent of alcoholism clinical research, which over the past 15 years or so has made significant progress toward rigorous evaluation of both existing therapies and newly developed therapies for use in treating alcohol-related problems. Finally, continued research on alcohol's effects in the brain and on the links between brain and behavior, which has already led to the development of medications to reduce craving, is likely to provide clinicians with a range of highly specific medications that will, when used in conjunction with behavioral therapies, improve the chance for recovery—and the lives—of those who suffer from alcohol abuse and dependence.

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<sup>1</sup>Project MATCH is a national, multisite, randomized clinical trial that produced data on the outcomes of specific alcoholism treatment approaches.

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