



Research Update is published by the Butler Center for Research to share significant scientific findings from the field of addiction treatment research.

## Project MATCH: A Study of Alcoholism Treatment Approaches

Most issues of *Research Update* discuss current findings from multiple research studies. However, because of its major contribution to the understanding of addiction treatment and recovery, this *Research Update* focuses exclusively on one study—Project MATCH.

### Background and Rationale

It was long observed and acknowledged that no single treatment regimen worked best for all alcoholic patients. Many studies of alcoholism treatment suggested that different treatment approaches (types of treatment and levels of care) might be more effective than others for certain types of patients.<sup>1,2</sup> This basic notion is known as “patient matching,” or finding the best type of treatment for a particular type of patient.

In order to test that hypothesis and examine the nature and strength of associations between various treatment and patient “matches,” the National Institute on Alcohol Abuse and Alcoholism initiated Project MATCH—Matching Alcoholism Treatment to Client Heterogeneity. Generally speaking, the goal was to determine what type of treatment worked best with what type of patient by conducting a large-scale, multi-site, statistically rigorous, randomized, clinical research study, the results of which would have important implications for clinical practice.<sup>3</sup>

### Study Design

Project MATCH conducted two independent treatment matching studies using the following client groups:

1. 952 outpatients at five sites, and
2. 774 aftercare patients at five sites, who had recently completed an episode of inpatient or intensive day hospital treatment.

For both the outpatient and aftercare group, the same randomization techniques, data collection instruments, treatment protocols, and follow-up procedures were used. Patients were enrolled into the study over a two-year period.

#### All patients were randomly assigned to one of three treatment approaches:

TYPE OF TREATMENT	GOAL OF TREATMENT	DESCRIPTION	FREQUENCY
<b>CBT</b> (Cognitive Behavioral Therapy)	Learn skills to achieve and maintain sobriety	Coping and drink-refusal skills taught by therapist to handle states and situations known to precipitate relapse	12 weekly sessions
<b>TSF</b> (Twelve Step Facilitation)	Acceptance of the disease of alcoholism and loss of control over drinking	Patients introduced by therapist to the first steps of Alcoholics Anonymous and encouraged to attend meetings	12 weekly sessions
<b>MET</b> (Motivational Enhancement Therapy)	Mobilize the person's own commitment and motivation to change	Therapist applies motivational psychology to examine effect of drinking on patient's life, and develop and implement a plan to stop drinking	4 sessions in 12 weeks

Ten client characteristics examined were based on the literature: severity of alcohol involvement, cognitive impairment, conceptual level, gender, meaning seeking, motivation, psychiatric severity, social support for drinking versus support for abstinence, sociopathy, and alcoholic typology.

For each treatment approach, a detailed, written manual was developed. It was accompanied by therapist training, supervision, and certification. The three treatment approaches were:

1. Cognitive Behavioral Therapy (CBT),
2. Twelve Step Facilitation (TSF), and
3. Motivational Enhancement Therapy (MET).<sup>4</sup>

### HAZELDEN BETTY FORD FOUNDATION EXPERIENCE

The Hazelden Foundation, established in 1949, pioneered an approach to alcoholism treatment that incorporates the philosophy of Alcoholics Anonymous into the treatment experience. In order to standardize the components and delivery of that therapeutic treatment modality for the purposes of Project MATCH, Hazelden provided expert consultation in the development of the manual on Twelve Step Facilitation (TSF).<sup>10</sup> Hazelden's treatment, in practice, utilizes elements of CBT and MET approaches as well.

### CONTROVERSIES & QUESTIONS

The release of Project MATCH findings sparked a flurry of methodological and other discussions, applause, and criticism. On the one hand, the study was criticized for using the Randomized Controlled Clinical Trial (RCT) as the basis for its design rather than testing a predetermined set of matching rules. On the other hand, Project MATCH was lauded as a rigorous test of the utility of patient/treatment matching. Of most concern, however, has been the danger of misinterpreting the results of the study.

**Question:** *Isn't Twelve Step Facilitation the same as Alcoholics Anonymous?*

No. Twelve Step Facilitation is not the same as Alcoholics Anonymous (AA) or a referral to AA. It refers to a therapeutic approach wherein a series of one-to-one counseling sessions occur between a therapist and patient, that address the basics of alcoholism as a chronic, long-term disease. The sessions also cover the basic philosophy of AA (particularly the first five steps), and address the spirituality component of recovery. The patient is encouraged to participate in AA.

### HOW TO USE THIS INFORMATION

Clinicians in alcohol treatment settings can apply these findings regarding anger, psychiatric severity, alcohol dependence, and social support networks for drinking, in order to better assess patients upon entry into treatment. Clinicians can also examine the manuals, counselor training, and patient assessment components dictated by the Project MATCH study as a general approach to treatment that works well.

## Project MATCH

### Study Results—Few “Matches” Found

Outcomes were measured in terms of percent of days abstinent (PDD) and drinks per drinking day (DDD). There were no significant differences across treatment approaches during and after treatment; patients in all treatment groups reported considerable reduction in drinking.<sup>5, 6</sup>

Generally speaking, clients with higher alcohol problem severity at intake did better at three years follow-up than clients with lower severity. (Severity was measured by alcohol involvement, alcohol dependence, and type of alcoholic).<sup>7</sup> Subsequent analyses also revealed that patients with higher anger levels had better outcomes with MET than the other two therapies.<sup>7</sup> At months 37–39 another match appeared: clients who had a social network that *supported* their drinking *before* they received treatment had better outcomes with TSF than MET.<sup>7</sup> This difference is explained, in part, by the higher AA involvement of TSF clients.<sup>8</sup>

### Post treatment Drinking Outcomes

Patients in all three treatment groups reported significant reductions in drinking during the one year, post treatment follow-up period. Differences across treatment groups were not significant, although TSF showed a slight advantage.<sup>6</sup>

At three years follow-up, however, a significantly higher abstinence rate was found with TSF clients. Among TSF clients 36% were abstinent, compared with 27% of MET and 24% of CBT clients ( $p < 0.007$ ).<sup>7</sup>

### Implications for the Delivery of Treatment

Project MATCH remains the largest behavioral intervention trial conducted on alcoholism to date. The main implication of Project MATCH findings is that all three treatment approaches are effective in the treatment of alcoholism: TSF, CBT and MET.<sup>6</sup> The fact that few patient-treatment matches resulted in modestly improved treatment outcomes suggests that a major overhaul is unwarranted in the manner and extent of treatment triaging based on client characteristics.

Project MATCH was the first scientifically rigorous demonstration of the effectiveness of TSF, a widespread, but previously untested approach to alcoholism treatment.

Finally, contrary to the popular belief that treatment for alcoholism is not very effective, Project MATCH found that up to one half of patients were abstinent or had significantly reduced their drinking one and three years after treatment.<sup>9</sup>

Further, the reductions in drinking were greater for the sample of patients who entered Project MATCH after completion of a residential program (not simply treated on an outpatient basis). This raises the possibility that a prolonged period of abstinence enhances long-term success and brings into question, according to Enoch Gordis, M.D., Director of the National Institute on Alcohol Abuse and Alcoholism, whether the best interests of many alcoholic patients are being best served by managed-care organizations' replacement of residential treatment services in favor of outpatient settings.<sup>9</sup>

### References

1. Institute of Medicine. (1990). *Broadening the base of treatment for alcohol problems*. National Academy Press. Washington, D.C.
2. Del Boca, Frances K, and Mattson, Margaret E. (1994). Developments in alcoholism treatment research: Patient-treatment matching. *Alcohol*. Vol. 11. No. 6.
3. Project MATCH Research Group. (1993). Project MATCH: Rationale and methods for a multisite clinical trial matching patients to alcoholism treatment. *Alcoholism: Clinical and Experimental Research*. Vol. 17. No. 6.
4. Donovan, Dennis M., Kadden, Ronald M., DiClemente, Carlo C., Carroll, Kathleen M., Longabaugh, Richard, Zweben, Allen, and Rychtarik, Robert. (1994). Issues in the selection and development of therapies in alcoholism treatment matching research. *Journal of Studies on Alcohol*. Supplement No. 12.
5. Project MATCH Research Group. (1998). Matching alcoholism treatments to client heterogeneity: treatment main effects and matching effects on drinking during treatment. *Journal of Studies on Alcohol*. Vol. 59.
6. Project MATCH Research Group. (1997). Matching alcoholism treatments to client heterogeneity: Project MATCH posttreatment drinking outcomes. *Journal of Studies on Alcohol*. Vol. 58.
7. Project MATCH Research Group. (1998). Matching alcoholism treatments to client heterogeneity: Project MATCH three year drinking outcomes. *Alcoholism: Clinical and Experimental Research*. Vol. 22. No. 6.
8. Longabaugh, Richard, Wirtz, Phillip W., Zweben, Allen, and Stout, Robert L. (1998). Network support for drinking, Alcoholics Anonymous and long-term matching effects. *Addiction*. Vol. 93. No. 9.
9. Commentaries (1999). Comments on Project MATCH: matching alcohol treatment to client heterogeneity. *Addiction*. Vol. 94. No. 1.
10. Carroll, Kathleen M., Kadden, Ronald M., Donovan, Dennis M., Zweben, Allen, and Rounsaville, Bruce J. (1994). Implementing treatment and protecting the validity of the independent variable in treatment matching studies. *Journal of Studies on Alcohol*. Supplement No. 12.

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