

The Role of Continuing Care in
Outpatient Alcohol Treatment Programs

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Preparation of this manuscript was supported by funding from the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the Center for Substance Abuse Treatment (CSAT).

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Abstract

Substance abusing patients are frequently urged to participate in continuing care, or “aftercare,” following an initial phase of treatment. However, there has been relatively little research on the effectiveness of continuing care, particularly in the context of outpatient service delivery systems. Since 1988, 12 controlled studies of continuing care for alcohol use disorders have been published. Only three of these studies were conducted exclusively within outpatient service delivery systems; in the other studies, all patients (six studies) or at least half of the patients (3 studies) were first treated in inpatient or residential facilities. Four of the 12 studies yielded positive findings (2 of 6 studies with minimal/no continuing care control conditions and 2 of 6 studies with active control conditions). It is suggested that continuing care treatment might be improved by placing greater emphasis on addressing co-occurring problems and facilitating the identification and strengthening of patients’ skills, interests, and talents, although additional research would be needed to evaluate the impact of these modifications. Further research is also needed to establish guidelines for when patients are ready to enter continuing care and to develop performance indicators to monitor progress.

The Role of Continuing Care in Outpatient Alcohol Treatment Programs

A certain percentage of individuals with alcohol use disorders are able to achieve sustained recoveries either on their own or after receiving a brief therapeutic intervention.¹⁻³ However, for many individuals alcoholism is a chronic disorder, characterized by periods of abstinence followed by eventual relapse and re-entry into the treatment system. Indeed, alcoholism and other substance use disorders are increasingly seen as similar in course and outcome to chronic health problems such as diabetes, hypertension, and asthma.^{4,5}

Due to the relapsing nature of the disorder, individuals receiving treatment for substance abuse are generally urged to participate in some form of continuing care after their initial phase of treatment has ended. When most substance abuse treatment was delivered in inpatient or residential settings, continuing care usually consisted of outpatient “aftercare” group therapy sessions and participation in self/mutual help programs such as Alcoholics Anonymous (AA). Aftercare was intended to ease the transition from the controlled therapeutic environment, particularly for people who traveled to another locale to attend a 30 day rehabilitation program, and to maintain progress achieved in the inpatient or residential program. One of the other major goals of aftercare was to provide continued support for participation in self/mutual help programs.

At this point, most substance abuse treatment is provided in outpatient settings,^{4,6} with residential or inpatient treatment restricted to those with severe comorbid medical or psychiatric problems. In the outpatient model, patients participate in an initial treatment phase of 30 to 60 days duration, which could range from two (standard outpatient) or three (i.e., intensive outpa-

tient treatment) contacts per week up to daily contact (i.e., day hospital). Patients who complete this phase then enter standard outpatient treatment, which usually consists of one contact per week. Continuing care treatment in the outpatient model is usually delivered through group sessions, focused on substance use, and oriented around the 12 steps of mutual/self help programs.

One important issue in the shift to a largely outpatient service delivery model that has not been adequately addressed is the extent to which the role of “continuing care” is similar to, or different from, the role that “aftercare” assumed in the old residential service delivery model. For substance abusers graduating from residential programs and other types of controlled environments, the main goal of aftercare is to maintain initial abstinence in an environment where alcohol and drugs are readily available and cues that stimulate craving are present. Most graduates of an initial phase of treatment in an outpatient service delivery system, on the other hand, have already demonstrated some ability to achieve and maintain abstinence outside of a controlled environment. Studies have indicated that patients who complete intensive outpatient treatment (IOP) are likely to have much better substance use outcomes than those who fail to complete IOP.⁷ Although for such patients the continued maintenance of abstinence is still obviously important, it is questionable whether this should always be the primary focus of continuing care.

The goal of this article is to examine the role of continuing care for individuals with alcohol use disorders within a service delivery system that relies primarily on outpatient treatment. In the first half of the article, correlational and controlled studies of continuing care are reviewed, with particular attention paid to controlled studies conducted in the last decade. The results of the review are discussed with respect to two key methodological issues: (a) whether the

initial treatment experience that preceded continuing care was delivered in a residential/ inpatient or an outpatient setting, and (b) whether a no/minimal treatment or another active continuing care intervention served as the control condition. This part of the article draws heavily from another review of continuing care studies that also included studies of patients with drug use disorders.⁸ In the second half of the article, recommendations for improving continuing care interventions are proposed. These recommendations point toward a model of continuing care that is focused on adding specific services to (a) address co-occurring problems that are of particular importance during this phase of recovery, and (b) identify and strengthen the patient's skills, talents, and interests.

Review of Continuing Care Studies

Correlational Studies

Treatment interventions. Correlational studies that have examined the relationship between participation in continuing care interventions and substance use outcomes have consistently generated positive results. In a review of alcohol aftercare studies done prior to 1985, Ito and Donovan concluded that greater participation in aftercare was associated with a reduced risk of relapse to heavy drinking, although not necessarily with higher abstinence rates.⁹ In a study of inpatient treatment for alcoholism in the Navy, the best single predictor of positive outcomes at one year was months of aftercare attendance.¹⁰ Inpatient VA programs whose patients attended at least two aftercare sessions following discharge had fewer patients readmitted.¹¹ In another study of inpatient treatment,¹² veterans who participated in subsequent continuing care (i.e., formal aftercare, self-help programs, or both) had better one year drinking outcomes than those who

did not attend continuing care. However, participation in formal programmatic aftercare only was not associated with better outcome. The primary limitation of correlational studies is that treatment effects are confounded with various patient characteristics, such as motivation to stop substance use and initial success in treatment. Therefore, controlled studies provide a better indication of the impact of continuing care interventions.

Controlled Continuing Care Studies

Description of controlled studies. Literature searches and an examination of the citations in a recent review⁴ yielded 12 controlled studies of continuing care, published between 1988 and 1999.¹³⁻²⁴ The studies are described in Table 1. Eight studies included patients with a primary alcohol use disorder diagnosis, whereas the other four included patients with a combination of drug and alcohol problems. Ten studies featured random assignment of patients to two or more conditions. In the other two studies, assignment to treatment condition was done on the basis of sequential cohorts and availability of the experimental condition.

Table 1 (follows)

Several clinical researchers have conducted studies in which the experimental treatment protocol was divided into several distinct stages, or phases.^{25,26} Clinicians have also advocated the use of staged approaches in their treatments for substance abusers.^{27,28} However, the continuing care phases of these treatment protocols have not been evaluated independently, which precluded the inclusion of these studies in the review.

Several brief remarks are in order concerning the quality of the studies in this review. With regard to the sample size, nine of the 12 studies had sufficient numbers of participants to detect medium effects. Of the three studies with samples of 80 or less, lack of power appeared to be an issue in only one study (i.e., apparent group differences that did not reach significance). Ten of the studies featured random assignment, and the majority included some sort of measures to corroborate self-report. Most studies tested manualized treatment interventions, and only one had a follow-up of less than 12 months. Therefore, the overall methodological quality of the studies in the sample was relatively high. Shortcomings in design or implementation that could have influenced the findings of a particular study are noted where appropriate.

Two important methodological issues in the examination of continuing care effects are the type of treatment provided initially and the type of control condition employed. Of the 12 studies in the review, six included patients from inpatient/residential programs, three included patients from outpatient programs, and three included patients from residential or outpatient programs, although typically the majority were from residential programs. With regard to type of control condition, six of the studies featured a no treatment or minimal treatment control condition, whereas six focused on comparisons between two or more active continuing care treatments. Studies that examined continuing care after inpatient/residential treatment only or outpatient treatment only tended to compare an active treatment against a minimal or no treatment control (four of six and two of three studies, respectively), whereas studies of continuing care after a mixture of residential or outpatient treatment compared two or more active treatments (three of three studies).

Results. The studies in Table 1 were classified according to whether a positive or negative treatment main effect result was obtained. Studies with positive results were those in which a treatment group difference was obtained on the primary substance use outcome measure(s). Studies with negative results were those in which no treatment group main effects were obtained on the primary substance use outcome measure(s), or mixed results were obtained, such as outcomes on one measure favored one group, but there was no effect or the opposite effect on the other specified primary substance use outcome measures. According to this classification system, four of the 12 studies yielded positive results. Somewhat surprisingly, studies with a minimal or no treatment control condition were as likely to yield a positive result as were those with an active control condition (in each case, two of six, or 33%).

Positive results were found in the following four studies. Home visits by a nurse over a 12 month period produced better alcohol abstinence rates and fewer blackouts than a minimal control condition over a 5 year follow-up period.¹⁸ In this study, however, all nursing visits were provided by one individual, which means that treatment and provider effects were confounded. Couples behavioral marital therapy relapse prevention sessions produced better drinking outcomes out to 18 months and better marital adjustment out to 30 months, as compared to a no continuing care control condition.²⁰ Extended follow-up telephone contacts in an EAP program produced marginally better outcomes on three drinking related outcome measures, substance abuse disability, substance abuse treatment costs, and number of substance abuse hospitalizations, over a 12 month follow-up, as compared to standard EAP follow-up care.²² Finally, individualized relapse prevention produced better heavy drinking outcomes at the level of a trend in the second year of a two year follow-up.²⁴

Four of the 12 studies included tests of potential patient – treatment “matching” effects. Of these four studies, three yielded positive matching findings. The study by Cooney, Kadden and colleagues found that patients high in psychopathology or sociopathy had better drinking outcomes in coping skills than in interactional aftercare, whereas those with low scores on those measures or more cognitive impairment did better in the interactional aftercare condition.^{16,29} O’Farrell et al.²⁰ reported that greater marital problems at intake were associated with larger alcohol and marital satisfaction treatment effects in a comparison of behavioral marital relapse prevention therapy vs. no further treatment. McKay et al.²⁴ found that cocaine and alcohol patients who had not achieved remission from current alcohol dependence during the IOP program that preceded continuing care had better heavy drinking outcomes in year two if they received RP rather than standard group continuing care. The only study with matching analyses that yielded primarily negative results was Project MATCH.¹⁹ In the aftercare wing of this alcohol treatment study, only one of 10 proposed matching effects received some support.

Conclusions from Continuing Care Studies

Although most of the correlational continuing care studies that were described here yielded positive findings, the controlled studies did not consistently provide support for the efficacy of these interventions. Even when an active continuing care intervention was compared to a minimal or no continuing care control group, less than 50% of the studies found positive effects. However, most of the patients who participated in these studies were graduates of inpatient or residential primary treatment programs. Only three studies focused exclusively on continuing care effects following an initial phase of outpatient treatment. At this time, the vast majority of substance abuse patients receive their initial phase of treatment in day hospitals, intensive outpa-

tient programs, or standard outpatient programs. Therefore, there is very little empirical data on the effectiveness of continuing care within contemporary substance abuse service delivery systems.

Most of the controlled studies included in this review examined interventions that were primarily, if not entirely, substance abuse focused. Of these interventions, cognitive-behavioral relapse prevention or coping skills treatments were examined most frequently (7 studies), followed by standard addictions counseling (3 studies). Substance abuse focused interventions were also delivered in relatively novel ways in four studies, via home visits from a nurse or telephone follow-up calls. Conversely, only two studies tested interventions that specifically focused on changing behavior in other areas, in addition to changing substance use behaviors. The behavioral marital therapy (BMT) relapse prevention treatment studied by O'Farrell et al.²⁰ directly addressed general marital problems in addition to substance use, and the coping skills intervention studied by Hawkins et al.²¹ included extensive efforts to engage patients with community volunteers and networking activities. The possibility that interventions designed to address co-occurring problems commonly found in substance abusers might improve the effectiveness of continuing care is discussed below.

Recommendations for Improving Continuing Care in an Outpatient Service Delivery System

The studies included in this review do not provide strong evidence for the effectiveness of continuing care, particularly in the context of outpatient service delivery systems. This may in part be due to the lack of studies that have directly addressed this issue; further studies may yield

more positive findings. However, it is also possible that existing approaches to continuing care are not particularly effective with patients who have completed an initial phase of outpatient treatment, and that new approaches or treatment components are therefore necessary.

Several excellent reviews have described specific treatment interventions that might be effective during the continuing care phase of substance abuse rehabilitation.^{4,30,31} Donovan, for example, has recommended that continuing care involve the social support system, make use of recovery houses, include a monitoring system to catch lapses early, encourage self-help group participation, consider medication when appropriate, and provide case management services.⁴ Hawkins and Catalano have also recommended that continuing care include strategies to improve social support and housing, along with vocationally-focused, activities-focused, advocacy, and skills-training interventions.³¹ The following sections of this review address the identification of clinical issues that may be particularly important during the continuing care phase of outpatient service delivery systems.

Determining When Outpatients are Ready for Continuing Care

In the recent past, inpatient programs almost always had a fixed length of stay, which usually was 28 days. Within that model, the timing of transition to aftercare was governed by the planned duration of the residential program, rather than by other factors such as patient progress. In an outpatient service delivery system, programs also frequently have a fixed length of stay, although in some cases patients may be retained in the initial phase of treatment for an extra week or two because of relapse or failure to participate in self-help programs. However, because patients differ in their rate of progress, it might be more useful to consistently link transition to continuing care to the achievement of specific therapeutic goals. The American Society of Ad-

diction Medicine (ASAM)²⁷ has developed a set of criteria for determining when patients are ready to transition to a less restricted level of care. According to these criteria, patients should remain in a particular level of care until they have achieved certain goals. For example, patients who are in IOP should not be discharged to a lower level of care as long as they still meet DSM-IV criteria for a substance-related disorder, satisfy the specifications of at least one dimension of the criteria indicating a need for IOP, and are sufficiently stable to be maintained at that level of care (i.e., their condition has not deteriorated to the point that a more intensive level of care is needed). Patients can be discharged from IOP when they no longer meet current substance use disorder criteria and do not meet criteria for continuing stay at that level of care on any of the six ASAM dimensions.

Unfortunately there has been little empirical research on the identification of markers of readiness to transition to lower levels of care in an outpatient system. In the cocaine continuing care study by McKay and colleagues, patients who had not achieved a 30 day period of remission from cocaine or alcohol dependence during IOP prior to entering continuing care had worse cocaine outcomes³² and poorer retention³³ during the five month continuing care program, and worse cocaine and alcohol outcomes over the entire two year follow-up.²⁴ This suggests that the achievement of at least 30 days of abstinence from substance use might be one performance indicator of readiness for transition from IOP to continuing care.

Important Therapeutic Goals During Continuing Care

The primary goal in all phases of substance abuse treatment is to sharply reduce if not eliminate alcohol and drug use. This suggests that certain therapeutic interventions or goals are likely to be important throughout a course of treatment. However, if continuing care within an

outpatient service delivery system is really a separate phase of treatment, as opposed to simply a reduction in the intensity of services provided in IOP, then it should also have a unique set of therapeutic goals or tasks. Moreover, these goals and tasks should be different, at least to some degree, from those that are appropriate for patients entering continuing care following residential treatment. One possible resource for the identification of important therapeutic goals during continuing care is the literature on factors in relapse, either during or following treatment.

Findings from relapse studies. Substance abuse relapses have been studied with retrospective and prospective designs³⁴, and more recently, with “near real time” methodologies in which data are collected at frequent intervals during periods of high risk.³⁵ A methodological review of alcohol, drug, and nicotine relapse studies found that five relapse factors or precipitants were consistently identified in retrospective, prospective, and near real time designs: negative emotional states, increased craving, cognitive factors such as reduced commitment to abstinence and lower self-efficacy, interpersonal problems, and lack of coping efforts during periods of temptation.³⁶ These factors also figure prominently in the models of relapse that dominate the field at this time.³⁷⁻⁴⁰ This would suggest that these five relapse factors should be addressed aggressively in the continuing care phase of treatment. However, data from most relapse studies have been obtained either from patients who had received residential treatment or from individuals in outpatient smoking cessation studies. It is therefore not entirely clear that these specific factors are the most common precipitants of relapses in alcohol dependent individuals who have entered continuing care after completing a more intensive form of outpatient treatment.

Proposed therapeutic goals for continuing care. It is apparent that there is a relative paucity of research to guide in the identification of therapeutic goals, or the tasks needed to reach

them, for continuing care within an outpatient service delivery system. However, it may be useful conceptually to divide potential continuing care therapeutic goals into three basic categories. The first, which might be labeled “Abstinence Management,” consists of goals initially addressed in the first phase of treatment that are also appropriate for continuing care patients. These could include: (1) establishing or shoring up shaky abstinence in patients with recent use, strong cravings to use, or diminished commitment to abstinence; (2) improving the management of money and free time; and (3) strengthening coping responses to situations previously associated with substance use.

A variant of “Motivational Enhancement Therapy” (MET)⁴¹ may be particularly useful for patients who experience reduced commitment to abstinence during continuing care. Contingency based interventions that reward abstinence, such as the provision of employment or housing opportunities to patients who provide drug-free urine toxicology samples, may also be effective in the continuing care phase for patients who are struggling to achieve abstinence.²⁵ As Donovan⁴ has recommended, recovery houses and other abstinence-oriented living situations may help substance abusers get through periods of decreased motivation and learn to better manage free time and money, and naltrexone and other medications may help reduce craving and the reinforcing effects of alcohol when episodes of use do occur.

A second category of therapeutic goals, which might be labeled “Comorbid Problem Management,” concern the reduction of other problems that could lead to eventual relapse, including relationship difficulties, chronic medical and psychiatric disorders, and lack of employment and other life skills.^{4,20,26,31,42,43} In many cases, treatment for acute or severe problems in any of these areas should probably begin in the initial phase of treatment, whether it is

delivered in an outpatient (e.g., IOP or partial hospital) or a residential setting.⁴² However, even when acute care has been provided for comorbid problems, it may be beneficial to provide additional services targeted at these problems during the continuing care phase of treatment to ensure that they are appropriately managed.

The final proposed category of therapeutic goals concerns the identification, facilitation, and strengthening of patients' existing skills, interests, and talents. This set of goals, which might be labeled "Facilitation of Alternative Reinforcers," would serve to reduce the likelihood of relapse by making abstinence more satisfying and rewarding than continued use.³⁸ In this regard, treatment strategies that stress involvement in community organizations and pro-recovery recreational and leisure activities have been recommended.³¹ Furthermore, controlled studies have indicated that that so called "broad spectrum" interventions, such as the Community Reinforcement Approach, that facilitate participation in abstinence oriented social events as well as interventions that stress other alternative reinforcers can have a positive impact.⁴⁴⁻⁴⁸ Interventions that facilitate exercise and other forms of physical activity also appear to be promising.³⁰

Longitudinal studies by Vaillant and colleagues suggest that long-term recovery is associated with several factors, including substitute dependencies (e.g., meditation, compulsive hobbies), new social supports, and increased hope and self-esteem.^{49,50} According to Vaillant, participation in religion and self-help programs can be particularly useful for rekindling hope and rebuilding self-esteem. At this time, the therapeutic goals in this third category are less likely to be addressed in continuing care interventions than abstinence management or comorbid problem management goals. However, they are perhaps the only goals that are truly specific to the continuing care phase of treatment.

Data gathered at entrance to continuing care on progress toward achieving abstinence during the initial phase of treatment and current comorbid problem severity could be used to prioritize therapeutic goals for continuing care. For patients who have achieved abstinence and have relatively low levels of comorbid problem severity, continuing care could place comparatively greater emphasis on facilitating alternative reinforcers. For the abstinent patient with comorbid problems, the greatest emphasis would be on the reduction of these problems, followed by the facilitation of alternative reinforcers and the management of abstinence. Conversely, for patients who had not achieved stable abstinence during the initial phase of treatment and for those who relapse during continuing care, abstinence management would be the highest priority goal, along with comorbid problem management for those who also have serious problems in other areas. Further research would be needed to evaluate the utility of such an approach to prioritizing therapeutic goals during continuing care. At this point, no studies have directly addressed this issue.

Finally, although addiction is often a chronic, relapsing disorder, it is not economically feasible to provide long-term treatment for all or even the majority of individuals with substance abuse disorders. Therefore, during continuing care, patients should assume increasing responsibility for their recoveries by making the sort of lifestyle changes that will support continued abstinence once formal continuing care has ended. Active and regular participation in self/mutual help organizations such as Alcoholics Anonymous is one of the more effective vehicles through which to effect and sustain these sorts of lifestyle changes, and may be at least as important as formal continuing care.¹² Therefore, one of the crucial goals of continuing care should be to prepare patients to cope effectively when they are no longer in treatment.

Need for further research. It is clear from this review that there is a great need for further research on the continuing care phase of treatment for alcohol use disorders. First, the lack of strong and consistent empirical support for the effectiveness of continuing care suggests that additional research is needed on the content of these interventions. Potential research topics include the identification of specific therapeutic goals and tasks that facilitate the maintenance of abstinence or sharply reduced use, and detailed examinations of factors that lead to relapse during continuing care. For example, there is now convincing evidence that posttreatment commitment to absolute abstinence is a strong and consistent predictor of better substance use outcomes,^{51,52} as is participation in self-help programs.^{12,53} However, little is known about the therapeutic processes that effect abstinence commitment. Information generated by studies on therapeutic goals and tasks could be used to modify existing interventions or develop new approaches, which could then be subjected to rigorous experimental evaluation.

Second, there is little empirical information on the optimal frequency or duration of continuing care with regard to efficacy and cost-effectiveness, or whether this varies as a function of patient characteristics and progress toward treatment goals. For example, it is possible that low intensity follow-up over prolonged periods of time via the telephone, coupled with self-monitoring of severity of cravings and any drinking episodes, might be a cost-effective approach to the treatment of patients with histories of repeated relapses (i.e., those for whom alcoholism truly resembles a “chronic” disease). Third, the effectiveness of naltrexone and other medications that appear to reduce use as part of continuing care has yet to be evaluated. This is likely to become a more important issue as other effective pharmacological interventions are identified. Fourth,

more information on the long-term effectiveness of continuing care is needed. Only four of the controlled studies in this review had follow-ups of two years or more.

Finally, there is great interest among substance abuse treatment providers and health care policy makers in the identification of “performance indicators” that can be used to document the impact of treatment, without having to resort to expensive and time consuming outcome studies. Typically, performance indicators are measures that are collected during treatment that are predictive of posttreatment outcome, such as the achievement of initial abstinence and treatment completion. With regard to continuing care, performance indicators collected at the end of a more intensive initial phase of treatment could be useful in deciding (a) when patients are ready to move to continuing care, and (b) what therapeutic goals are appropriate during continuing care. Performance indicators collected during continuing care would facilitate the assessment of progress toward therapeutic goals. This information could form the basis for decisions concerning the maintenance or discontinuation of specific services as well as discharge. Further research is needed on the relationship of treatment process and patient status during continuing care to posttreatment outcomes in order to develop such performance indicators.⁵⁴

Final Conclusions

Within an outpatient service delivery system, the continuing care phase of treatment is a period for habilitation/rehabilitation in important life areas, following the achievement of abstinence, or at least a sharp reduction in use, during a more intensive initial treatment phase. This may best be accomplished through a combination of core addiction services, to maintain abstinence motivation and address craving; interventions that address co-occurring psychiatric, social, and life skills problems; and additional interventions designed to identify, facilitate, and

strengthen patients' existing skills, interests, and talents. For patients who have already managed to achieve a toe hold on abstinence, perhaps the most important function of continuing care is to ensure that these individuals get a clear sense that abstinence can be more satisfying and rewarding than further substance use.

In addition, within outpatient service delivery systems, continuing care should probably have more fluid boundaries with adjacent levels of care than was the case in the old residential treatment – aftercare model. Length of stay in one level of care and point of transition to less intensive treatment should be determined by progress toward therapeutic goals, although more research is needed to establish what these goals should be. One important question is whether patients who do not achieve initial abstinence while in the first phase of care should “graduate” into continued care or be retained in a more intensive treatment until abstinence is established. When patients who are in the continuing care phase of treatment suffer slips or relapses, it may be necessary to increase the intensity of continuing care services, or provide additional services.

As the findings of this review point out, the widespread belief that formal continuing care promotes abstinence is not strongly supported by the studies that have been done to date. Given that we are in an era of health care cost containment, it is particularly important to develop continuing care interventions that will yield positive effects on substance use and psychosocial functioning outcome measures when subjected to rigorous empirical evaluation.

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Table 1: Controlled Studies of Continuing Care

Citation	Characteristics Of Subjects	N	Prior Treatment	Method Assign	Type of Cont. Care	Follow-up Duration	Main Effects	Matching Effects	Other Comments
<u>Alcohol Studies</u>									
Gilbert (1988)	Male veterans, 89% white	96	Inpatient	R	Compliance enhancements: None, phone, home visits	12 mo	CC attendance highest with home visits, but no group differences in drinking outcome	Not tested	CC completion associated with better outcomes
Ito et al. (1988)	All male, 70% white	39	Inpatient	R	8 weeks of 1x/ week groups: Relapse prevention vs. interpersonal	6 mo	No group differences on drinking outcome, CC attendance, or change process measures.	Not tested	6 early drop- outs not in- cluded in Analyses.
McLatchie & Lomp (1988)	Not provided	155	Inpatient	SC	CC presented as: Mandatory, Voluntary, Delayed 12 weeks	3 mo 12 mo	No group differences on drinking, AA attend., or other outcomes Mixed results	Not tested	99% FU at 3 mo, much lower at 12 mo.
Cooney et al. (1991)	85% white, 33% women	96	Inpatient	R	26 weeks of 1x/week groups: Coping skills vs. Interactional	24 mo	No group differences on drinking outcome measures	Coping better for high sociopathy or psycho- pathology patients; Interactional better for cognitively impaired patients and those low in sociopathy or psychopathology	2-year follow- up of Kadden et al. (1989)

Table 1, continued

Connors et al. (1992)	68% male, "problem drinkers"	63	Outpatient	R	Group counseling vs. telephone calls (8 session/call) vs. no aftercare	18 mo	No differences between the three conditions	Not tested	Very good compliance with AC
Patterson et al. (1997)	White males, First admissions	127	Inpatient	NR	Nurse visits over 12 months vs. review visits every 6 weeks	60 mo	Better abstinence rates, less blackouts, less gambling in Nurse visit group	Not tested	Nurse visits delivered by only one person
Project MATCH (1997)	80% male, 80% white	774	Inpatient or Intensive DH	R	Individual MET, CBT, or 12-Step Facilitation (12 weeks duration)	15 mo	No group differences	2 of 21 matching effects were sig.: TSF better for high meaning seeking and high alcohol dependence; CBT better for low dependence. Effects found post-treatment only.	
O'Farrell et al. (1998)	Married, Male	59	Outpatient couples treatment	R	15 couples BMT/RP sessions offered over 12 months vs. no CC	30 mo	Better drinking outcomes to 18 mo and marital outcomes to 30 mo in BMT/RP	Greater marital probs associated with larger treatment effects	

Table 1, continued

Drug and Alcohol Studies

Hawkins et al. (1989)	82% male, 75% white Primary drug abusers	130	Therapeutic community (TC)	R	Skills training and networking activities (2x/wk for 26 wks) plus TC vs. TC only	12 mo	Skill level at 12 mo, Exp > cntrl; no differences on alcohol use outcome measures	Not tested	First 10 weeks of intervention delivered during final phase of TC
Foote & Erfurt (1992)	Predominantly male, 50% black	325	Inpatient (60%) or outpatient	R	Follow-up contacts (15-20 over 12mo) plus CC vs. CC only	12 mo	Marginally better outcomes on 3 DA measures in exp cond.; no group differences on 3 other measures	Not tested	Implementation problems
Graham et al. (1996)	73% male	91 101	Inpatient Evening OP	R	12 weekly RP sessions: group vs. individual	12 mo	No group differences on alcohol or drug use measures. Group RP better on social support	Not tested	Same results in inpatient and OP samples
McKay et al. (1999)	Male veterans, 85% Black cocaine dependent	132	Intensive outpatient (IOP)	R	2 sessions/wk for 20 wks: standard group vs. group plus individual RP	24 mo	No group differences on frequency of heavy drinking days, or ASI alcohol composite. However, heavy drinking in Y2 favored RP	Pts using alcohol in IOP had better drinking outcomes in Y2 if they received RP rather than STND	2-year follow-up of McKay et al. (1997)

Note: "CC" = continuing care; "R" = randomized; "SC" = assignment by sequential cohorts; "NR" = not randomized