

**SUBSTANCE ABUSE TREATMENT:  
WHAT WORKS FOR HOMELESS PEOPLE?  
A REVIEW OF THE LITERATURE**

*PREPARED FOR*  
**TRANSLATING RESEARCH INTO PRACTICE SUBCOMMITTEE  
NATIONAL HCH COUNCIL & HCH CLINICIANS NETWORK  
RESEARCH COMMITTEE**

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## EXECUTIVE SUMMARY

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In substance abuse treatment, a gap exists between scientific research and clinical practice that is not common to other fields of medicine. This gap between research and practice is a concern shared in the Health Care for the Homeless (HCH) field as well, a concern which led to the formation of the "Translating Research Into Practice" subcommittee. This report represents the subcommittee's first endeavor, a summary of peer-reviewed published literature on substance abuse treatment and homeless persons. The intent of the report is to enable the subcommittee and practitioners in the field to identify existing discrepancies between research and HCH practice.

Substance abuse is both a precipitating factor and a consequence of homelessness. Prevalence estimates of substance use among homeless individuals are approximately 20-35 percent; as many as 10-20 percent are "dually diagnosed" with an additional mental health diagnosis. In the United States, less than one-quarter of individuals in need of substance abuse treatment actually receive it; structural and interpersonal barriers to accessing substance abuse treatment are exacerbated by the realities of homelessness. Thus, homeless persons have a higher need for treatment than in the housed population, yet can expect to face more difficulties in accessing the help they need.

An understanding of often-contentious underlying issues and their associated assumptions is helpful in interpreting this body of published research. The issues introduced and reviewed here, along with specific implications, include: which basic research questions and designs are most apt to be funded; some fundamental differences in treatment philosophies which may affect programmatic decisions; the issue of mandating treatment for a vulnerable population; and how "success" is defined in programs and in research.

Homeless individuals with substance use disorders - particularly those who are dually-diagnosed - pose a substantial challenge to the substance abuse treatment community; the first challenge is in the engagement process. The research has explored various barriers to successful engagement, including disaffiliation or social isolation, distrust of authorities, mobility, and multiplicity of needs. Some of the methods recommended to counter these barriers include aggressive outreach (making initial contact with an individual in his or her own environment); provision of housing or other practical assistance; and creating a safe, non-threatening environment.

One of the most consistent findings in this research is the direct association between the length of time spent in treatment and positive outcomes. Yet the challenge of retaining clients in substance abuse treatment is intensified when the target population is homeless: drop-out rates of two-thirds or more are common. Homelessness often translates directly into a relapse issue. Clients leave treatment programs prematurely for a multitude of reasons; researchers exploring these reasons have identified programmatic recommendations and strategies. Housing is critical - programs which provide housing have consistently lower drop-out rates - but housing alone is not a sufficient solution. Some programs which have provided housing supports on a continuum model, with intensity of services reflecting degree of client independence, have met with some success.

A recent national survey revealed that the inpatient treatment homeless persons are most apt to receive is hospital detoxification, and that the outpatient treatment they are most likely to receive is a 12-step recovery program. These experiences, however, are not directly correlated to the research being conducted, which tends to focus more on innovative residential inpatient programs and day treatment modalities. For example, a great deal of research has been done on "therapeutic communities" modified for homeless persons. In general, the research finds appropriately modified therapeutic communities to be cost efficient and effective for homeless persons. Controlled studies of hospital-based inpatient services

are scarce, and tend to focus on variables appropriate to the current managed care climate (such as hospital or emergency room utilization, costs, or retention rates). Few studies exist on extended inpatient treatment, particularly for those who are dually diagnosed, and outcomes in longer follow-ups.

Studies of outpatient treatment, including “intensive” outpatient treatments, various models of day treatment programs, case management, and contingency management interventions (such as monetary reinforcement of abstinence and abstinence contingent on housing and work) also reveal varied outcomes. Many of the results depend, for example, on the client make-up (dually-diagnosed vs. substance-users-only), model of service delivery, availability and access to auxiliary services and staff, and definitional issues (e.g. intensity level of case management).

There is ample agreement in this body of literature that any effective treatment for this population must foster interagency collaboration; this is necessary in order to meet their multiple needs in a context of scarce community resources. Equally agreed upon is the complexity of such an endeavor. Much of the existing research comparing integrated models of service delivery with models which link to existing community services is largely descriptive. For example, several qualitative studies have attempted to illustrate the depth of the complexities involved and the associated strengths and weaknesses of both models. Few studies have examined the effectiveness of the integrated treatment model compared to a linkage model, much less the extent to which the model is desirable and for whom; these few studies have produced inconclusive findings. While the methodological complexities raised by a controlled comparison are daunting, it is precisely this type of study which could be advantageous for HCH programs which have experimented with innovative approaches for linking and integrating services for homeless individuals.

Studies of programs targeted for women have consistently concluded that they result in more positive outcomes for women, especially in terms of program retention. Treatment approaches for women must take their unique issues into account, such as experiences with physical and sexual abuse and with motherhood. This is particularly important for dually-diagnosed homeless women, and the research provides specific methods for doing this. While the need for targeted programs specifically for homeless youth and adolescents has been well-documented, outcomes studies of such programs are still rare.

The current trend in substance abuse treatment is a move away from specialist treatment settings, in part because of the effects of managed care and because people with substance abuse issues do not always end up in treatment (i.e. they often end up in jails or hospitals). One result of this trend has been increased emphasis on brief interventions. While research on brief interventions with non-homeless individuals has concluded that they are feasible in primary health care settings and can be equally or more effective than more extensive treatment, no such evidence has been identified for homeless persons.

Treatment “matching” – matching client needs characteristics with appropriate treatment – has also been well-studied (although not with the homeless population), but research has not validated this approach. The element of choice, or client “self-matching” treatment programs, has also been assessed (including with homeless persons) and found to have no effects. One area which remains virtually unexplored in the treatment literature is what staff “styles” work most effectively with which clients. Clinical style can explain a great deal of variance in client success, and given the disaffiliation, social isolation and lack of trust prevalent among homeless persons, may be especially relevant for this population.

A few studies assessing the self-reporting validity of homeless substance abusers have uncovered grave inaccuracies; this has both program and research implications for this population. In addition, randomized experiments are the research design best suited to ruling out competing explanations for observed effects, and are therefore held in esteem among researchers and among those funding research.

However, the negative impacts of randomly selecting homeless clients into treatment modalities for the purpose of research are significant.

On the whole, this body of research points us in the direction of treatment programs which: address homeless clients' tangible needs (e.g. housing, employment) as well as their addiction; are initially flexible and non-demanding; are targeted to specific needs of subpopulations, such as gender, age, or diagnoses; and provide longer-term, continuous interventions. Much of this research begins with the premise that homelessness is a static variable, and that outcome "success" resides in the individual – a stance which obscures structural causes and solutions for homelessness. The randomization of homeless clients into treatment also raises serious ethical concerns; qualitative research methodologies have proven useful and should continue to be considered valuable approaches. Some of the specific research gaps most relevant to HCH practice include a need for a better understanding of the effectiveness of integrated versus linked services, and of the importance of staff approach to care. To glean HCH knowledge in these and other areas in an attempt to inform future research would be of great benefit not only in improving programmatic responses for homeless individuals, but also in enhancing discussions which influence policy discussions and funding decisions.

## INTRODUCTION

### Linking Research and Practice

#### Scientific Knowledge and Clinical Practice

A gap exists between scientific research and clinical practice in the field of substance abuse treatment which is not common to other fields of medicine. This is typically attributed to the fact that the substance abuse treatment field grew out of a non-medical tradition, leading to a widespread belief that research has little to contribute to treatment. Enoch Gordis, as Director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in 1991, noted this gap, inferring that clinicians still use the tools and techniques developed during the earliest days of alcohol treatment: *“Had research been an integral part of the alcohol field during this time, we could have reached the point where treatment of alcohol use problems was an accepted part of medical care.”* (Gordis 1991, p.173) He added that bridging this gap, while challenging, is necessary *“given the unabating drain of alcohol-related problems on the health, and on the social and economic well-being, of our Nation’s people.”* Gordis asserted that one important step toward bridging the gap is to *“make relevant research findings available to practitioners, in formats that are useful to busy treatment personnel whose daily patient responsibilities often preclude them from scouring journal articles or from performing extensive literature searches.”*(Gordis 1991, p. 174) (See Schumacher et.al. 2000 for concrete suggestions to researchers and service providers for developing these linkages.)

Though speaking more than a decade ago, Gordis’ assertions appear to be relevant today. A National Treatment Plan Initiative to improve substance abuse treatment, published by the Center for Substance Abuse Treatment (CSAT) late in 2000, draws very similar conclusions: *“Despite numerous reports and exhortations, a number of fragmented programs, and the best intentions of all parties, the best knowledge still largely fails to be adopted in practice. ...Treatment programs must incorporate new research results in their treatment practices...”* (p.23)

*Over the last twenty-eight years, the biggest failure in the substance abuse treatment field is the little impact we have had from research on treatment.* (local judge cited in CSAT 2000, p.24)

#### Translating Research Into Practice

This gap between research and practice is a concern shared in the Health Care for the Homeless (HCH) field as well, leading to the formation of a research subcommittee, “Translating Research Into Practice.” Subcommittee members, comprised of researchers and clinicians working in the field of health care and homelessness, chose the topic of substance abuse treatment for its first undertaking. (See Appendix A for a list of Subcommittee members) As a first step, members reviewed a selection of peer-reviewed, published literature on substance abuse treatment and the homeless population (note: no unpublished works are included, such as conference presentations or dissertations) to learn what the research says is effective with homeless clientele. This report summarizes that body of literature, and is intended to enable the Subcommittee to identify any existing gaps between the research and HCH clinical practice.

#### **Description of the “Problem”**

The relationship between chemical dependence and homelessness is interactive; one condition does not necessarily cause the other, but each can exacerbate problems associated with the other. Substance abuse can be both a precipitating factor and a consequence of homelessness. This complex relationship has been

explored in the literature but is beyond the scope of this review. Instead, the aim of this section is to introduce some of the broader realities of prevalence and barriers to treatment for homeless persons.

Prevalence of Substance Abuse and Mental Health Issues in the Homeless Population

Estimates of the prevalence of substance abuse disorders and/or mental health problems among the homeless population vary due to the differing definitions, settings, methods, and assessment tools employed. (McCarty et.al.1991; Robertson et.al. 1997) For example, in a review of studies published during the 1980s, Fischer found prevalence of alcohol-related problems ranged from 2%-86%; and of drug abuse from 2% to 70% . Compared to the housed population, she concluded that the homeless population experienced alcoholism as much as nine times more frequently. (Fischer in NIAAA 1989) On the whole, researchers seem to agree that the “average estimate” of substance abuse disorders is from 20-35% of homeless persons. (Milby et.al. 1996)

*Despite the programs – ranging from neglect to starvation to incarceration to detox – that have been devised for the public inebriate, the percentage of alcoholics among the homeless has apparently hovered around 30% for nearly a century. (Stark 1987, p.12)*

Similarly, estimates of the prevalence of mental disorders in the homeless population, and of the “dually-diagnosed” – those with co-occurring substance abuse and mental health disorders – range widely. Drake and others suggest people dually diagnosed with “severe mental illness” and substance use disorders constitute between 10-20% of homeless persons. (See also: Orwin et.al. 1994; Koegel et.al. 1999; Johnson and Barrett 1995)

In a comment on the epidemiological understanding of homelessness, substance abuse and mental disorders, Baumohl said “while it is safe to say that substance abuse and persistent and severe mental disorder are serious problems among homeless adults, it is difficult to be more specific.” (Baumohl 1993 p. 334) The table below summarizes prevalence results from a recent national survey of homeless assistance providers and their clients. A large majority (86%) of the clients surveyed had experienced some alcohol, drug, and/or mental health problem at some point during their life, and two-thirds had experienced at least one of these problems during the month prior to the survey.

<b>ALCOHOL, DRUG, AND MENTAL HEALTH (ADM) PROBLEMS AMONG HOMELESS CLIENTS</b>			
	<b>PAST MONTH</b>	<b>PAST YEAR</b>	<b>LIFETIME</b>
Any ADM Problem	66%	74%	86%
Alcohol Problem	38%	46%	62%
Drug Problem	26%	38%	58%
Mental Health Problem	39%	45%	57%

*Burt et.al. 1999 (Table 2.4)*

In a study of adult homeless shelter users, authors found that two-thirds were identified as ever having had a mental health or substance use problem, treated or untreated. (Culhane et.al. 1998)

Given the considerable heterogeneity of the homeless population, it may be a more useful exercise to determine epidemiology among specific subgroups, particularly those subgroups who may require targeted service interventions. (Stahler 1995; Alcabes et.al. 1992) Demographic variables associated most strongly with prevalence include gender and race. (McCarty et.al. 1991) For example, males appear more likely to report alcohol and drug-related problems, while women are more apt to report higher rates of mental illness. (Fischer in NIAAA 1989; McCarty et.al. 1991) One report on HCH clients concluded, “the general pattern is that problem drinking is about three times as common among homeless men as



*among homeless women, a ratio that is remarkably stable regardless of the number of contacts.”* (Wright et.al. 1987, p.26) Crack-cocaine appears to be particularly prevalent among homeless African American men and women in some of the larger urban centers in the U.S. (Stahler 1995)

Regardless of specific estimates, among the homeless population as a whole or among subgroups, the existence of these problems establishes quite clearly the real need for treatment and rehabilitation.

### Needs versus Access to Services

In the United States, it is estimated that more than 18 million people who use alcohol and almost 5 million who use illicit drugs need substance abuse treatment, with “need” defined by consumption patterns and seriousness of associated consequences. And overall, *fewer than one-fourth of those in need of treatment actually receive it.* (Horgan et.al. 2001) Much of this gap is explained by structural barriers – such as lack of available space or limited funding – and by users who may not want or acknowledge a need for treatment. These barriers, exacerbated by the realities of homelessness itself, are even more imposing for the homeless population.

*Within the substance-abuse-treatment community, the homeless can be expected to receive lower priority than non-homeless clients because...those who are higher functioning, who are ‘better,’ more desirable clients, tend to receive better services from treatment programs.* (Stahler and Cohen 1995, p.172)

Evidence is available to indicate that homeless individuals may not be receiving the treatment services that they need (Breakey et.al. 1989; Drake et.al., 1991; McCarty et.al. 1991; Koshes and Voell 1990) and to point to the failure of existing systems to meet those needs. (Dennis et.al. 1991; McCarty et.al. 1991; Wenzel et.al. 2001; Shavelson 2001) However, relatively little is known about the extent to which homeless people receive treatment for their psychiatric or substance abuse problems, or, equally importantly, about the variables or characteristics which predict utilization. (Padgett 1990) Certainly need plays a critical role, but the answer is not as simple as providing adequate services for the existing need; need is not sufficient to predict utilization even when services are available. Similarly, removing financial barriers is insufficient. For example, at least one study has examined the relationship between health insurance and service utilization, suggesting that

*although homeless people who lack health insurance face strong financial barriers to health services, providing them with health insurance may not appreciably increase their demand for health care if they also face important non-financial barriers.* (Kreider et.al. 1997)

Following are some recent attempts to address the issue:

- Koegel and colleagues conducted interviews with 1,563 homeless individuals (66% had chronic substance dependence, 22% had chronic mental illness, with significant overlap) and found just 20% of those with identified need had received treatment for those disorders within the prior 60 days. Further, they found mental health service use was predicted largely by factors related to need (e.g. diagnosis), but substance abuse service use was predicted by a range of other factors (e.g. race/ethnicity, location, perceived social support, health insurance). The authors conclude that this variation reflects “*in part, critical differences in the organization and financing of these systems of care.*” While the study focused on individuals, it became clear that system-level characteristics interfered with access:

*It is only by turning our attention to systems-level features – how services are being provided, which services are being provided, how access to those services are structured, and a host of related variables – that we will fully understand how to design systems that minimize those barriers so that homeless people with mental health and/or substance abuse problems can get the help they need. (Koegel et.al. 1999)*

- Wenzel and her colleagues found 27.5% of their probability sample of 326 homeless persons with either alcohol or drug use disorder had accessed inpatient or residential treatment during the prior year. They found greater need for treatment was in fact associated with fewer nights of treatment, which the authors attributed to retention difficulties. The study

*...highlights a pattern of disparities in substance abuse treatment access. Health insurance is important, but enhancing access to care involves more than economic considerations if homeless persons are to receive the treatment they need. (Wenzel et.al. 2001)*

These studies point to the complexities involved with predicting access to treatment. Demographic characteristics (including duration of homelessness and gender), access to social and financial supports (including health insurance), and of course the existence and acknowledgement of need play critical roles. Certainly scarcity of treatment programs generally, not to mention appropriate treatment programs tailored for homeless persons with dual diagnoses, is a significant barrier. It is also clear, though, that *perceptions* of needs are also critical, at least for the homeless population, who do not always rate their need for substance abuse treatment as their highest priority or even as an important one. (Acosta and Toro 2000) A divergence also exists at times between client perceptions of treatment needs and those of their providers. (Calsyn et.al. 1997; Rosenheck et.al. 1997b) A recent nationwide study of homeless assistance providers and clients by the Urban Institute revealed some interesting data on perceptions of need among currently homeless persons:

- Asked to name the three things they needed most “right now,” the most frequent responses were help finding a job (42%), followed by help finding affordable housing (38%), and assistance with paying expenses in relation to securing permanent housing (30%). The thirteenth most frequent response to the question was treatment for use of alcohol or other drugs (9% mentioned this). Just five percent mentioned detoxification from alcohol or other drugs.
- Similarly, when asked to identify the single most important thing keeping them homeless, insufficient income (30%) was cited most often, followed by lack of a job (24%), lack of affordable housing (11%), and addiction to alcohol or drugs (9%).

Clearly, the structural and interpersonal barriers to accessing substance abuse treatment that exist for the housed population are only compounded by the situation of being homeless.

#### **UNDERLYING ISSUES AND ASSUMPTIONS**

This section of the report briefly reviews some often-contentious issues which, though not often expressed as topics open for public debate, nevertheless have clear impact on what type of substance abuse treatment models are available and funded, on which research questions get asked, and on what policy decisions are made. For example, this section examines which basic research questions and designs are most apt to be funded, some of the fundamental differences in treatment philosophies which may affect programmatic decisions, the issue of mandating treatment for a vulnerable population, and how “success” is defined in programs and in research. The goal here is not to conduct an in-depth exploration of these issues, but rather to provide a context in which to better understand the peer-reviewed

published research.

### **Will the Research Resolve or Perpetuate the Problem?**

*If we are going to make a difference with substance abuse problems, then we have to realize that drug abuse is related to housing is related to health care is related to joblessness is related to poverty. You can't deal with any one of those without dealing with all of them. (Dr. Larry Meredith, originator of "Treatment on Demand" in San Francisco, CA - cited in Shavelson 2001, p.100)*

In reviewing these research studies on issues related to substance abuse treatment and the homeless experience, it quickly becomes clear that they are quite narrowly focused. These studies, on the whole, are focused on assessing the effectiveness of specific treatment modalities in treating persons who are homeless, as well as of techniques to engage and/or retain homeless individuals in treatment in general. Many examine the role that individual characteristics -- such as drug use and treatment histories, family status, gender, race, and motivation -- might play in "what works." Increasing one's access to substance abuse treatment (generously assuming such treatment is readily available when needed) and improving one's chances of overcoming a substance abuse disorder once engaged in treatment, are certainly important, but these research questions address the symptoms of the problem rather than the problem itself. Put more succinctly, "*Our commitment should be toward solving the problem rather than to a particular solution.*" (McCarty et.al. 1991, p.1146)

In an editorial in the American Journal of Public Health, Meyer and Schwartz note a shift in the public health research from a focus on health problems of homeless people (decreased from 77% between 1984-1988 to 41% between 1994-1998) to a focus on personal risk factors for homelessness (15% to 44% in those same time periods). They describe the implications of this shift: "*in practice, despite the conceptual understanding of the role of structural causes of homelessness, homelessness has been studied as if it were a disease, an outcome defined as residing in the individual.*" (Meyer and Schwartz 2000, p.1190) By focusing on individual characteristics, researchers are obscuring rather than illuminating the social and economic causes of homelessness. An anthropologist making a similar argument, puts it this way: "*one effect of conceptualizing social problems through a lens of diseased bodies is often a neglect of systemic inequality. Consideration of the material and historical conditions that might contribute to the production of problems is silenced or marginalized by a focus on individual traits and habits.*" (Lyon-Callo 2000)

Although policymakers have been concerned with the problems of homelessness generally, much federal policy (particularly in the 1980s) viewed substance abuse, mental illness, and related individual problems of homeless persons as the root causes of their condition. The federal response has been to target the substance abuse problem specifically through support for programs intended to halt alcohol and other drug abuse while housing markets and urban economies have been generally ignored. (Lubran 1987) Funding for research has followed suit:

*funds for developing new substance abuse programs using promising approaches and conducting evaluative research on the effectiveness of these programs have been provided by agencies such as the National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institute on Drug Abuse (NIDA), National Institute of Mental Health (NIMH), and other agencies concerned with substance abuse rather than homelessness. (Lubran 1987)*

(See Appendix B of this report for an overview of two of these major funding programs, and Block et.al. 1997 for a more detailed description) Furthermore, there has been a bias toward quantitative research in

social science, and in funding, which tends to emphasize individual characteristics in explaining patterns of substance abuse and homelessness and may have limited appreciation for the contextual meaning of such behaviors. (Bazemore and Cruise 1993) Research questions must be carefully considered. Studies on interventions which are based on individual pathology models can be expected to have minimal impact on structural issues which exacerbate or even cause those individual pathologies; substance abuse problems among homeless individuals and their treatment needs should be viewed from a structural perspective as one piece of a much bigger societal problem.

The “power” of the research and clinical experts should not be downplayed. In an assessment of the development of one of the NIAAA-funded research demonstration projects, Johnston and his colleagues carefully outline the impact of the research team and its subsequent impact: “[T]he research interests of the Principal Investigator and co-Principal Investigator (mental health) directed the program-building and coalition-building process away from the challenge of spanning the gap between social service and economic opportunity programs, and reinforced a local culture emphasizing individual pathology and moral failure.”(Johnston et.al. 1995)

### **Treatment Philosophies**

Following are some of the “philosophies” underlying substance abuse treatment for homeless individuals; these are not mutually exclusive, but it is helpful to understand some of the underlying assumptions of each when interpreting research findings.

#### Medical Model versus Social Model

Subsequent to the declaration of alcoholism as a disease in 1956, substance abuse treatment has primarily developed within the medical system. Passage of the “Hughes Act” (Uniform Alcoholism and Intoxication Treatment Act) in 1971 provided a major incentive for states to create standards for the operation of programs for the treatment and rehabilitation of alcoholics, and encouraged the shifting of care for public inebriates from the criminal justice system to the health care system, emphasizing more humane approaches to the “drunk tank” -- heretofore the dominant care approach.

Some states began to explore alternatives for treatment, among them a social-setting approach to detoxification. Initially, much controversy surrounded the question of whether alcohol withdrawal syndrome could be treated in a nonmedical environment (Sadd and Young 1987); though the controversy has since quelled, the medical model continues to dominate the treatment field. (In 1983, medical detoxification was used in two-thirds of all units providing alcohol detoxification services. NIAAA 1989) Medical detoxification is generally only necessary for patients with a severe withdrawal condition at intake or for those with a history of severe withdrawal symptomatology; only about five percent of alcoholics need medical intervention during detoxification. (Beshai 1990; Borkman 1999) [One study assessing the effectiveness of social-setting detoxification for homeless “severely dependent drinkers” concluded that they could be detoxed as effectively (and safely) in a hostel as in a hospital. (Haigh and Hibbert 1990)]

A “pure” medical model approach can be troublesome for homeless persons due to high costs and short duration of treatment. Winnenbring describes the latter problem this way:

*...traditional alcohol and drug treatment was not well designed to deal with the problems [the homeless] present. While these problems tend to be chronic in nature, many conventional treatment programs operate on an acute care model. While [homeless] people continue to manifest a need for support and treatment (continuously or*

*intermittently) for months to years, treatment offers them acute intervention on an episodic basis, at best. (Winnenbring et.al. 1991, p.4)*

And, with a shift to outpatient approaches to care in the 1980s, many homeless people were discharged back to the street following day treatment. The inadequacy of available options for the homeless client, particularly for the dually-diagnosed homeless client, contributed to an emphasis on social-model approaches to treatment.

### **Characteristics Distinguishing Social Model Programs from Traditional Professional Alcohol Treatment Programs**

***Social model programs:***

- employ nonprofessional, recovering staff rather than professional therapists – so staff as well as residents have a personal recovery and growth program. Staff do not diagnose; referrals are made to outside sources as needed or appropriate. They are explicit role models who guide instead of direct participants;
- encourage open admissions and de-emphasize record keeping, standardized admissions procedures, and case management practices;
- emphasize “natural” recovery processes versus therapeutic treatment; and,
- stress “experiential” knowledge and spirituality versus diagnostic procedures and professionally prescribed treatment plans.

(Bazemore and Cruise, 1993; Borkman et.al. 1999)

The two approaches share commonalities as well: both show compassion toward alcoholics and treat clients/patients with dignity; both strive to be non-institutional; and, proponents of each see alcoholism as a treatable disease that requires personal responsibility for recovery. (Peer support and AA participation are valued in both the social and the medical models.) (Borkman et.al. 1999, pp.4-5)

In a review of research studies on non-medical vs. medical approaches to alcoholism treatment for the indigent, the authors concluded that all but the most “severe cases” could benefit from non-medical approaches: *“although nonmedical programs appear to be at least as effective for most alcoholics as more expensive medical programs – and therefore are recommended – especially severe cases may be the one group to benefit particularly from intensive residential care.”* (Sadd and Young 1987, p.49) A later review of the literature drew similar conclusions, noting that the key benefits of the social model programs, when compared to medical model programs, are 1) cost efficiency; and, 2) patients’ increased commitment to treatment. (Beshai 1990; see also Borkman 1999; McCarty et.al. 1991; Lapham et.al. 1996)

*The advantage of the social model approach is that while it is no more effective than any other approach, it is more efficient. For a given amount of money, it is possible for us to reach much larger numbers of people with social model services. It therefore appears to us from a public policy point of view, more public funds for alcohol services should be channeled to social model programs than to clinical programs to ensure we are using public monies most efficiently.* (Wright and Manov cited in McCarty et.al. 1991, p.1143)

The cost-efficiency argument has contributed to the fact that, currently, social model programs primarily serve indigent populations (96% in a new process study). Borkman notes this is a result of being *“primarily funded by county alcohol and drug program departments, and an increasing number of beds now are earmarked for prison departees and are paid for by criminal justice department budgets.”* (Borkman et.al. 1999, p.50) Social model programs struggle to secure funding from public agencies and are rarely deemed reimbursable by third-party insurers for a variety of reasons which will not be explored here but include a lack of clarity about outcomes and the populations best served by social model

programs; questions of the legitimacy of experiential knowledge as the basis of authority; and a weak focus in recovery/treatment in a preventive, community model. (Borkman et.al. 1999, p.48) At least one author has expressed concern that social model programs' cost-cutting potential, when combined with a primary focus on sobriety to the exclusion of other issues like housing or employment, can mean they become popular not for their philosophy of empowerment or their effectiveness, but because of their *"cost-cutting potential and ability to individualize blame for the problem of homelessness."* (Bazemore and Cruise 1993, p.614)

The outcomes studies of social model programs are few in number, however, and methodological weakness of those that do exist leave the assertion of social model programs' effectiveness open to challenge. In fact, there are *"no reports in the literature of a traditional, definitive randomized clinical trial involving social model clients who were followed longitudinally to assess outcome."* (Borkman et.al. 1999, p.49)

### 12-Step Recovery Programs

The self-help and peer-support approach of 12-step recovery is perhaps the most well-known "philosophy" of substance abuse treatment, and is the dominant approach to alcoholism treatment in the United States. It is certainly among the most commonly-used outpatient services among homeless clients; its popularity no doubt related to the low cost of its implementation. While some literature exists to demonstrate its effectiveness for non-homeless clients during and following professional treatment, less is available to illustrate the effectiveness of professional treatment based on 12-step principles, though some recent studies have indicated promise. (NIAAA 2000; Fuller et.al. 1999) The religious component of the program remains a barrier for at least some clinicians and clients. (Petee 1993) The general paucity of evaluative research may be due in part to the aversion of Alcoholics Anonymous programs to keep formal records, the anti-clinical perspective of AA proponents, and the view of recovery as an ongoing process rather than something which can be "cured" and assessed at the end of a program. (Bazemore and Cruise 1993)

Little research exists as to the effectiveness of the 12-step approach with homeless substance abusers, either as professional treatment or as a supplemental activity. Nonetheless, the homeless population is considered to be "amenable" to the 12-step approach, particularly because it addresses their need to connect with a supportive community – overcoming disaffiliation often associated with being homeless. In the research, there seems to be a general consensus that, even if it is no more effective than another substance abuse recovery philosophy or program per se, it is certainly helpful to many and in any case is not harmful. (Herman et.al. 1991; Devine et.al. 1997)

A distinct feature of the 12-step approach is the primacy it places on sobriety; it stresses alcoholism and substance abuse above all other problems. It follows that the approach would be especially effective for those for whom sobriety is the chief concern. Many homeless individuals, on the other hand, may have other issues – such as obtaining housing or jobs – which take precedence. Put another way, *"The AA philosophy of stressing alcoholism and substance abuse above all other problems may lead to significant difficulties in extending and adapting social model programs to address broader needs of populations who require, among other things, affordable housing and stable employment."* (Bazemore and Cruise 1993, p.613)

### Harm reduction

Speaking generally, a "harm reduction" approach to substance abuse treatment is one which *"provides a spectrum of services that collectively meet the different needs of individual drug users. The services are offered in response to the needs and wishes of drug users, instead of demanding that users conform to*

*rigid treatment program requirements.*” (cited in Shavelson 2001, p.81) The goal of harm reduction activities is “*not to support people in continuing their addiction, but rather to keep them, and their sexual partners, alive and infection-free long enough for them to have a chance to choose to enter treatment.*” (McMurray-Avila 2001, p.115) Techniques include, for example, clean needle-exchanges, and “wet” houses which permit alcohol use. This philosophy differs markedly from a “zero-tolerance” approach which requires complete abstinence from drug use during the treatment process; proponents believe that lower demands will simply encourage the addicted to stay addicted.

Available research of needle exchange programs indicates its usefulness in reducing the spread of HIV/AIDS, though their controversial nature has prevented widespread use or political support. Some homeless-specific research has examined the role of needle exchanges, particularly in the process of engaging into treatment. For example, one study assessed risk in a homeless sample by measuring risk behaviors and pre-needle exchange HIV-seroconversion rate and found that the needle exchange program attracted a very high risk subgroup of injection drug users. The authors concluded that “*needle exchange programs should be considered prime sites for behavior-change interventions.*” (Hahn et.al. 1997) A more recent study suggests that needle exchange programs could be helpful in facilitating enrollment into a methadone maintenance treatment program, provided of course that adequate treatment slots are available. (Shah et.al. 2000)

Though this brief summary presents the philosophies as opposite extremes, it is not clear to what extent the delineation is clear in practice, or on how adherence to one or the other of these philosophies may impact the implementation of treatment programs. And politically, the harm reduction approach has been aligned with the contentious debate of drug legalization, resulting in rhetoric which has implications for the clarity of any pursuant discussion on which drug policies might actually work. (Shavelson 2001, p.84) Homeless individuals might arguably benefit greatly from clear discussions such as these.

### **Mandating Treatment**

Given the immense difficulty in engaging and retaining homeless clients into substance abuse treatment (discussed in more detail below), one should not overlook the question of whether reluctant persons should be mandated to participate in treatment. According to the National Institute on Drug Abuse document, the Principles of Drug Addiction Treatment: A Research-Based Guide, “*treatment does not need to be voluntary to be effective.*”

This is a complex public policy issue particularly for the homeless population, who –as arguably the most vulnerable and powerless in this society - tend to lack voice. The question of mandating treatment speaks to the effectiveness question – i.e. will treatment be as effective for involuntary clients, particularly for social model programs which have as one of their central tenets the give-and-take of staff and clients in the treatment process. However, it also raises serious ethical concerns which need to be addressed in any policy discussion involving homeless persons and substance abuse treatment.

### **Defining Success**

Defining and measuring “outcomes” of treatment programs requires that assumptions be made about what should be considered successful results, not all of which may be appropriate for homeless substance-abusing individuals. A few qualitative and ethnographic studies have explored these assumptions and provide a context within which research results can be better understood. Following is a summary of some of the issues encountered during qualitative or ethnographic studies with homeless clients in substance abuse treatment programs.

Success in substance abuse treatment cannot be understood as a static concept; relapse is an integral part of recovery. (Stahler and Cohen 1995; Sacks et.al. 1999; Shavelson 2001; Berg and Hopwood 1991; Devine et.al. 1997) *The reality of addiction and addiction treatment is that changes tends to occur gradually and incrementally, typically with relapse and treatment recidivism.* (Stahler et.al. 1995) Instead, the notion of “progress” may illumine a more meaningful discussion of legitimate treatment outcomes. While this may be true for any substance-abusing clients, being homeless influences both motivations for entering treatment as well as the treatment experience itself.

*[Homeless] clients’ ...objectives often have little to do with improved mental health or sobriety. For others, treatment is simply low on a list of priorities.* (Watkins et.al. 1999)

Conceptualizations of success have been shown to vary among clients and staff. In a qualitative study of treatment success among homeless crack-addicted men, for example, Stahler and his colleagues found seven basic ways of understanding success among clients and staff. Often their meanings of success combined or cut across these seven domains:

- Complete sobriety and abstinence as advocated by 12-step programs;
- Graduation from the treatment program, or at least engagement in the program for a lengthy period of time;
- Attainment of life skills objectives, such as sobriety, employment, enrollment in school, ability to handle money, and housing;
- Change in psychological and emotional realms;
- Interpersonal improvements in terms of better relationships with family and friends;
- Ability to cope with problems and stress;
- Existential/phenomenological – a global, subjective sense of improving one’s life that depends on the client’s idiosyncratic life and drug history, patterns of residential instability, motivational state, and prior functioning.

(Stahler et.al. 1995, p.137)

The study also found that service providers’ interpretation of success often reflected their treatment program’s orientation as well as their respective roles within their treatment milieu. For example, counselors put a greater emphasis on success in the emotional realm while case managers placed more emphasis on tangible needs in their definitions of success.

Despite the subtle variations and complexities in what success means for homeless clients in substance abuse treatment and for their providers, however, research on addictions continually considers limited quantifiable variables, such as treatment program completion, as major criteria for success. In short, research on substance abuse treatment modalities for homeless clients may benefit from reevaluating the choice of outcomes being measured to determine what works.

## **ENGAGING HOMELESS CLIENTS INTO SUBSTANCE ABUSE TREATMENT**

Homeless individuals with substance use disorders pose a substantial challenge to the substance abuse treatment community, and the first challenge is in the engagement process. (Drake et.al. 1991) The



difficulties are only compounded for those homeless individuals “dually diagnosed” with both substance use disorders and severe mental illness. (Watkins et.al. 1999; Rosenheck et.al. 1993) While the engagement process is not the focus of this report, engagement is the first step in treatment. It would be heedless to discuss the effectiveness of substance abuse treatment modalities without acknowledging the major dilemma of engaging these individuals into *any* treatment process. This section of the report will briefly summarize some of the key factors affecting engagement and some engagement methods recommended in existing research.

### **Factors Affecting Engagement**

The use of the term “engagement”, rather than “recruitment” or “enrollment”, is deliberate; though these terms are often used synonymously, “engagement” for the purposes of this discussion refers to the period following an initial contact. While enrolling an individual in a treatment program offers its own set of challenges, the process of actively engaging persons into any treatment process is a challenge more apt to influence the outcomes of the treatment.

*For many indigent patients, treatment begins as a means to an end, and it is only after they are engaged that treatment becomes an end in itself.* (Watkins et.al. 1999, p.124)

The homeless population is extremely diverse and heterogeneous, and no one characteristic distinguishes them from others. The factors presented here are those which comprise significant barriers to the engagement process for many homeless individuals; these have been identified by psychiatrist William R. Breakey in his article “Treating the Homeless,” but can be found in numerous articles and studies. (Breakey 1987)

- Disaffiliation refers to a social isolation or a general lack of social support system. Breakey describes disaffiliation as “*a relative lack of those personal supports that enable most people to sustain themselves in society*” and suggests the difficulties in establishing and maintaining these bonds may help to explain the apparent lack of motivation and compliance of many homeless patients. (Breakey 1987, p.42) Research repeatedly links strong “social supports” with positive treatment outcomes, but the lack of such supports also plays a key role in preventing many homeless clients from engaging into treatment in the first place.
- Distrust of authorities and disenchantment with service providers. Such distrust often results from bad prior experiences, and may serve as “*a positive or adaptive function in a lifestyle often fraught with danger.*” (Blankertz et.al. 1990, p.1153) Distrust has been found to be a more consistent obstacle for women than for men, perhaps in part due to experiences with domestic violence – one author suggests that “*to engage and maintain women in treatment, both mental health and substance abuse treatment may need to address the psychological sequelae of victimization.*” (Watkins et.al. 1999, p.124) Concerns about confidentiality and mandated reporting can be especially prohibitive for some subgroups of the homeless population, such as undocumented immigrants, domestic violence victims, or runaway youths. For many, though, the lack of trust plays a role in preventing successful engagement into receiving appropriate care.
- Mobility. Engaging a homeless individual in need of a long-term treatment plan or anything approaching “continuity of care” is complicated by their geographic instability; often related to this instability is an unpredictability in scheduling. (Breakey et.al. 1987)
- Multiplicity of needs. Homeless individuals frequently possess complex needs for treatment programs to address, including a myriad of psychiatric concerns, social service needs such as access

to benefits, jobs, and housing, and physical health problems. Further, perceptions of appropriate prioritization for addressing these needs may differ between the homeless individual and the provider.

While these are presented as common barriers to engaging homeless individuals into a treatment system, they will certainly affect subpopulations to varying degrees. An individual's resistance to treatment is often related, for example, to the length of time he or she has been homeless; all of these factors become exacerbated by the experience of being homeless. (NIH 2001) Numerous research studies have explored the different needs and experiences with the engagement process for some subgroups, including women and families (Watkins et.al. 1999; Alexander 1996; Buckner et.al. 1993), juvenile offenders (Farrow 1995), sexual minorities (Farrow 1995), adolescents and runaway youths (Slesnick et.al. 2000; Embry et.al. 2000), and ethnic groups (Conrad et.al. 1993). However, further exploration into the unique barriers which exist for these and other subgroups of the homeless population, such as undocumented immigrants, would greatly enhance the effectiveness with which individuals can become engaged into a treatment process.

### **Methods for Engaging Homeless Individuals Into Treatment**

The literature offers some concrete strategies and defines some of the essential elements for engaging homeless individuals, or subgroups of the homeless population. Following is a brief summary of some of these strategies:

- **Outreach:** The term “outreach” is used to connote different activities; for example, in some cases it is a broad term of which engagement is a part, in others it is considered synonymous with engagement. However, “outreach” always includes, at minimum, a provider or other individual making an initial contact with the homeless individual in his or her own environment (e.g. on the street, under a bridge, in a shelter). (Some authors use the phrase “aggressive” or “assertive” outreach to distinguish outreach to the street from outreach within a community agency or institution.) Outreach has been shown consistently to be a successful method for targeting and contacting a segment of homeless substance abusers otherwise difficult to engage. (Tommasello et.al. 1999; Raczynski 1993; Ridlen et.al. 1990; Blankertz et.al. 1990; Morse et.al. 1996; Nyamathi et.al. 2000; Wagner et.al. 1992)
- **Housing/Practical Assistance:** The provision of housing or the offer of concrete practical assistance, such as help in accessing employment, can be very useful in engaging individuals into a treatment program they might not otherwise consider. Homeless women, for example, can be successfully engaged in substance abuse treatment program through their need for housing. (Smith et.al. 1995, p.71)
- **Safe, Non-Threatening Environment:** As noted earlier, distrust of authorities and institutions can be a barrier to engagement into treatment, so many studies have found it critical that the engagement process begin in a safe, non-threatening environment. Of course, this will be especially useful for subgroups with special concerns about confidentiality and mandated reporting, such as runaway youths, undocumented immigrants, and women fleeing abusive situations. (Watkins et.al. 1999) Following are some examples of low-demand settings where programs have had successful initial contact for engagement:
  - “sobering-up station” and a jail liaison (Bonham 1992);
  - welfare hotel (Ridlen et.al. 1990);
  - a “*storefront triage model*” of placing a chemical dependency worker in a runaway drop-in center or shelter has proven to be a workable model [for runaway youths]. (Farrow 1995) Shelters and drop-in centers are also considered vital “windows of opportunity” to engage adults as well. (De Rosa et.al. 1999; Argeriou and McCarty 1993)

- Strategies that Increase Motivation (e.g. Motivational Interviewing): Watkins and her colleagues conducted a small qualitative study to determine how homeless, dually-diagnosed males and females perceived the engagement process. In the study, they found that the dually diagnosed men tended to see themselves as coerced into treatment by external forces, or as needing treatment as a means of obtaining external control of either violent or criminal behavior. Therefore, the authors conclude that strategies which acknowledge the clients' need for control – such as motivational interviewing - may be particularly effective for dually diagnosed men. (Watkins et.al. 1999)
- Family-Based Treatment Engagement Strategy: Family-based treatment engagement refers to a strategy which has been used successfully with runaway youth. In this strategy, the youth and primary caretakers are engaged separately by the therapist using motivating factors appropriate to context of families' lives and to the developmental position of the client. (Slesnick et.al. 2000) Although this engagement strategy has been successful with just one target subpopulation, some of its elements may have broader applications.
- Peer Leadership: The role of peers in the engagement process has been shown to be successful as well: for example, cocaine abusers in psychiatric and obstetrics services have been responsive to a professionally directed peer leadership mode of referral into treatment. (Galanter 1992)

### **RETAINING HOMELESS CLIENTS**

Numerous studies have reported a direct association between the length of time spent in treatment and positive client outcomes (Orwin et.al. 1999; NIH 2001; Schumacher et.al. 1995; Wright and Devine 1995; Liberty et.al. 1998; McGeary et.al. 2000; Schumacher et.al. 2000b) independent of outcomes related to specific treatment models.

*If there is a single consistent finding that has come out of rehab research it is that the longer clients can be maintained in the programs the more likely they are to emerge clean and sober, and stay that way. (Shavelson 2001, p.300)*

### **Drop-Out Rates**

Retaining clients in substance abuse treatment programs is always a challenge, but the challenge is intensified when the target population is homeless. For example, the fourteen substance abuse treatment programs for homeless individuals funded by the NIAAA Cooperative Agreement Program (see Appendix B) each lost two-thirds or more of their clients to “premature exit” and the majority lost more than 80% -- leading to the conclusion that “*retention problems with homeless clients are as or more pervasive than in the general addicted population.*” (Orwin et.al. 1999) These drop-out percentages are certainly consistent with other studies of substance abuse treatment programs with homeless persons (Nuttbrock et.al. 1997b; Schonfeld et.al. 2000; Scott-Lennox et.al. 2000; Mierlak et.al. 1998).

It should be noted that, although many researchers indicate it is more challenging to retain dually-diagnosed homeless individuals than those with substance-abuse disorders only, it is not clear from the literature whether or in what specific modalities this is true. For example, one study examined the feasibility of treating dually-diagnosed cocaine-addicted homeless individuals along with those without mental illness in a program combining peer-led treatment with psychiatric management and pharmacotherapy. The author found that, even with the use of group confrontation techniques, schizophrenics and patients with major depressive disorder experienced equally good retention rates and substance use outcomes. (Galanter 1994) Another study assessed length of stay and treatment response of a sample of 608 patients with a diagnosis of schizophrenia or schizoaffective disorder treated on hospital

units with integrated dual diagnosis treatment. The study aimed to determine whether differences existed between those with and without comorbid substance-related problems. The authors found dually diagnosed patients improved markedly faster compared with those without a dual diagnosis; they had shorter hospital stays, greater symptomatic improvement, and no increase in 18-month readmission rates. It was not clear whether substance abuse temporarily exacerbated symptoms, the patients had a higher prevalence of better-prognosis schizophrenia, or the availability of integrated inpatient treatment helped the patients recover more rapidly. (Ries et.al. 2000)

### **Impact of Housing Status**

Retaining homeless individuals in treatment is especially critical precisely because of their housing status. Simply stated, “*homelessness often translates directly into an AOD relapse issue.*” (CSAT 2000) Orwin explains it this way:

*...when homeless clients do leave treatment prematurely, they do not merely fail in a treatment episode, but tend also to return to the highly precarious circumstances that precipitated their homelessness. Once homeless and using again, they are at high risk of HIV and a host of other serious health problems as well as violence and ultimately death. They also exact high societal costs through resumed utilization of expensive and inappropriate services.* (Orwin et.al. 1999, pp. 45-6)

The importance of housing (as well as employment) in successfully treating individuals cannot be understated; it comprises one of the most consistent themes in the literature. (Weinberg and Koegel 1995) The focus on immediate tangible resources, such as alcohol and drug-free housing\* and access to income maintenance benefits, leads to better adherence to referrals, improved retention in programs, and to better outcomes. (Sosin et.al. 1995; Stahler 1995; McCarty et.al. 1991; Dixon et.al. 1995; Dickey et.al. 1996; Conrad et.al. 1993; Dobscha et.al. 1999) (\*Note: We could find no research on the impact of “wet” housing versus alcohol and drug-free housing.) Indeed, the evidence shows that dropout rates are consistently much higher for clients enrolled in nonresidential programs than in residential programs (Smith et.al. 1995; Stecher et.al. 1994; Tomasello et.al. 1999; Bell et.al. 1994; Miescher et.al. 1996). Following are just a few typical comments:

*It is extremely difficult for an individual to stay sober without a stable economic support system, whether a job, or the job skills necessary to find and hold employment, or a public entitlement. There is also no way that an alcoholic individual can maintain sobriety without a place to live.* (Stark 1987, p.13)

*The best treatment and rehabilitation facilities imaginable can have but modest effects if, at the end of treatment, the patient returns to life on the streets.* (Wright 1989, p.153)

*...there is something about homelessness which compromises a substance abusing person’s ability to favorably respond to treatment. Perhaps the needs for secure rest and sleep, food, and shelter from weather are prepotent over the need for treatment of a substance abuse problem.* (Milby et.al. 1996, p.40)

However, to aver that housing is a sufficient solution to retaining homeless clients in substance abuse treatment would be to oversimplify. While all agree that provision of a residence during treatment provides obvious advantages for the homeless client, some studies able to track their clients’ progress often found that the positive effects of the residential treatment on client outcomes eroded over time and/or that they were dependent on the specific characteristics of the clients. (Burnam et.al. 1995; Hurlburt et.al. 1996; Goldfinger et.al. 1999) Discussing results from an evaluation of residential alcohol

and other drug treatment program, a group of disgruntled researchers trying to explain very poor retention rates commented: *“there may be something intrinsic to the circumstances, personalities, or conditions of homeless addicts that precludes most of them from being retained in a treatment program for much more than a few months.”* (Devine et.al. 1997)

Residential programs are simply not appropriate for all homeless clients. Weinberg and Koegel, conducting qualitative analyses of their residential and day treatment programs, note that *“for some individuals, the isolation and intensity of Canyon House [residential treatment program for dually-diagnosed homeless] were more curse than blessing. ...residential treatment and day treatment each carry with them distinctive features that will be valued differently by different individuals in very complex ways.”* (Weinberg and Koegel 1995) This is consistent with an observation drawn after review of results from 14 NIAAA-funded projects in 1999: *“The provision of housing increases retention, but the increases tend to be nullified when the housing is bundled with high-intensity services.”* (Orwin et.al. 1999)

In support of this conclusion, some programs which have provided housing supports based on a continuum model, with intensity of services reflecting degree of client independence, have recently met with some success. (Bebout et.al. 1997; Lipton et.al. 2000) One such study, for example, developed a “typology” of homeless persons - based on the number of days and episodes of homelessness - and customized treatment accordingly. The authors suggest that *“program planning would benefit from application of this typology, possibly targeting the transitionally homeless with preventive and resettlement assistance, the episodically homeless with transitional housing and residential treatment, and the chronically homeless with supported housing and long-term care programs.”* (Kuhn and Culhane 1998, abstract) In another attempt to make a continuum model work for dually diagnosed homeless individuals, Kline and his colleagues suggest that adapting the housing continuum to serve seriously mentally ill adults with histories of homelessness and past or current substance disorders, the following three special issues must be taken into consideration:

- *Safety and Security Needs:* Some housing advocates argue that treatment needs should be considered secondary when working with chronically homeless persons, that safe and secure housing should be the highest priority. (Hopper 1989; Kline et.al. 1991) The concept of “wet housing,” which allows some permissiveness for intoxication, is controversial (see discussion of harm reduction philosophy, above), but these authors suggest that *“more liberal rules for the homeless and dually diagnosed are advisable, as compared to residential treatment for substance abusers who are domiciled and not psychotic.”* (Kline et.al. 1991, p.103; see also Baumohl 1989; Blankertz and White 1990)
- *Inclusiveness:* Admission and discharge criteria should be more inclusive as *“abstinence may be an unrealistic standard for most dually diagnosed residents during the engagement and pretreatment stages.”* (Kline et.al. 1991, p.103)
- *Time Limits:* Stretch the usual time limits imposed by transitional housing since the treatment process will be slower for the dually diagnosed homeless individual who presents multiple issues. (Drake et.al. 1991; Kline et.al. 1991)

Residential programs bring with them other issues as well. Financial considerations, for example, are significant as improvement associated with residential treatment has been found to be more costly than improvement related to other treatment elements. (Rosenheck et.al. 1995) And, a small body of literature has examined management problems in supported housing and the complexity of screening processes, particularly for mentally ill persons. (Goldfinger et.al. 1996; Grunebaum et.al. 1999) For example, some of the “predictors” of poor housing stability include assaultiveness, self-destructiveness, and medication non-compliance.

The whole idea of residence or facility-matching is an area ripe for further exploration, and might be a worthy counterpart to research in the area of client-treatment matching (discussed later in this report): what kinds of people with what kinds of substance abuse problems do best in what kinds of facilities? Related practical questions, raised by an architect interested in treatment facilities for homeless alcoholics, include: what are the best kinds of sponsoring for developing residential facilities for alcohol programs, and what can be done to stimulate ‘front-end’ strategies to acquire the capital necessary to undertake the development of treatment facilities. (Wittman 1987; Wittman 1989)

### **Reasons for Premature Exit**

Clients leave treatment programs prematurely for a multitude of reasons, and understanding those reasons, as well as “high-risk” moments to look for them, may be helpful in retaining clients. Following is a summary of some of the reasons clients leave substance abuse treatment programs prematurely; these categories are derived from a systematic review of retention issues identified in results from the NIAAA funded programs, but they are not unique in the literature. (Orwin et.al. 1999).

- **Motivation**: Most of the research studies reviewed here utilize variables such as “motivation” or “treatment readiness” to determine any association with program retention and/or positive treatment outcomes. For the most part, these are in fact found to be positively correlated. (Erickson and Stevens 1995; De Leon and Sacks 1999; Lapham et.al. 1995; Velasquez 2000; Stahler et.al. 1995) One author concluded, for example, that “...clients' personal motivation for recovery, rather than program-related factors, were most influential in determining outcomes.” (Lapham et.al. 1995) [Some researchers have made a point of illustrating that homeless persons are not necessarily less committed to achieving treatment goals than those with housing. (Wenzel et.al. 1996; Kingree et.al. 1997)] While certain variables related to homelessness plausibly have a negative impact on motivation to engage in the treatment process (see “Factors Affecting Engagement”), that lack of motivation also negatively affects retention once in a treatment program.
- **Dissatisfaction with Degree of Program Structure or with the Program Environment**: Dissatisfaction can derive from, for example, a perceived loss of personal freedom, an experience of “overload” due to program intensity, or objections with specific rules. (Orwin et.al. 1999) One study of an assertive clinical case management program found that, for at least some homeless mentally ill women, “freedom to move about among residential settings may be instrumental in keeping [them] involved in a treatment program and off the streets.” (Harris and Bachrach 1990) To modify or avoid creating program rules or environmental constraints that clients will consider aversive can be easier said than done, of course. In Orwin’s summary of various program managers’ experience with this dilemma, he points out the influence of the treatment philosophy: “Several program managers probably could have increased retention by relaxing their relapse policy, but would have risked compromising their program model in the process.” He goes on to note, however, that some constraints unrelated to treatment model or philosophy can and should be changed, such as involvement of family and significant others in the treatment process. (see “Programmatic Recommendations and Strategies”)

Other reasons for premature exit included:

- **Desire to Resume Using**
- **Delay in Starting Treatment** (delays in program start-up and waiting lists)
- **Difficulty in Arranging Transportation** (non-residential programs)

- Failure to see Value (especially if program did not provide housing)

### Individual Characteristics Predicting Program Completion and Success

Numerous studies have attempted to link individual characteristics with completion of various treatment modalities, and with positive treatment outcomes. Some of the variables examined include childhood risk factors (Blankertz et.al. 1993b), employment histories (Mierlak et.al. 1998), interpersonal violence (Cohen and Stahler 1998), race (Leda and Rosenheck 1995; Scott-Lennox et.al. 2000), gender (Kingree et.al. 1995), age and family status (Scott-Lennox et.al. 2000; Coughy et.al. 1998). Not surprisingly – given the heterogeneity of the homeless population - very few consistencies can be found between these characteristics and program completion or “success”.

However, some linkages between individual characteristics and program completion have been relatively consistent. For example, less time spent abusing drugs is typically correlated with a greater likelihood of treatment completion (Westreich et.al. 1997b, Coughy et.al. 1998, Smith et.al. 1995) and more frequent experiences with prior treatment tends to result in program completion (Mierlak et.al. 1998). And, considering that the length of time spent homeless is linked to resistance to treatment, it is not surprising that it is also associated with lower completion rates. (Kingree 1995)

Perhaps the strongest predictor of program completion, though, is the existence of social supports. Research studies have consistently concluded that a client with established, meaningful social relationships and/or who is willing to interact socially is most apt to fare well in and complete treatment (Lam and Rosenheck 1999; Watkins et.al. 1999; Smith et.al. 1995; Alfs and McLellan 1992); conversely, those with antisocial personality disorders are generally correlated with non-program completion. (Summerall 2000; Smith et.al. 1995)

### **Programmatic Recommendations and Strategies**

Again referencing the study of retention issues for NIAAA-funded grantees, the following eight strategies were developed to encourage retention in substance abuse treatment. (see Orwin et.al. 1999 for description of each)

1. Eliminate/Decrease Waiting Period Between Enrollment and Admission;
2. Strengthen Orientation Process;
3. Increase Level of Case Manager Contact;
4. Increase Accessibility of Program;
5. Improve Program Environment;
6. Increase Responsiveness to Specific Needs (e.g. gender-specific);
7. Increase Recreational and Self-improvement Opportunities; and,
8. Increase Relapse Prevention Efforts.

Each of the grantees made at least one of these “midcourse corrections” to increase client retention and met with some success.

### **A REVIEW OF SPECIFIC TREATMENT MODALITIES**

*“Research shifted – in about the mid-1980s – from asking whether alcohol and drug treatment works (in general) to asking which specific treatment works for which specific group, and under what specific circumstances.”* (Willenbring et.al. 1991, p.3-4) This perspective has persisted in research on homelessness and substance abuse treatment throughout the 1990s. The result has been a great deal of research on innovative modifications of treatment program designs with subgroups of the homeless

population, such as those who are dually-diagnosed. This is not, however, necessarily correlated with the type of substance abuse treatment that homeless individuals are typically receiving; for example, a great deal of research has been done on modified therapeutic communities, an inpatient program model very few homeless persons with need for substance abuse treatment ever experience.

The 1999 national survey of homeless assistance providers and their clients discussed previously reveals the following data on alcohol and drug treatment use among homeless persons (see table below). The type of inpatient alcohol and drug treatment that homeless persons are most apt to have received is hospital detoxification, and the most common experiences with outpatient treatment are with a 12-step recovery program such as Alcoholics Anonymous/Narcotics Anonymous, with individual counseling, or with outpatient detoxification.

Table 8.3 excerpt

	<b>AMONG CURRENTLY HOMELESS WITH ANY ALCOHOL PROBLEMS</b>	<b>AMONG CURRENTLY HOMELESS WITH ANY DRUG PROBLEMS</b>
<b>EVER RECEIVED ANY ALCOHOL OR DRUG TREATMENT</b>	<b>43%</b>	<b>42%</b>
<b>Inpatient treatment</b>	<b>36%</b>	<b>36%</b>
Hospital detoxification	55%	46%
Other detoxification	26%	30%
<b>Outpatient treatment</b>	<b>29%</b>	<b>27%</b>
Alcoholics Anonymous/ Narcotics Anonymous	65%	39%
Individual counseling	46%	33%
Outpatient detoxification	36%	30%

*Burt et.al. 1999*

### **Inpatient Treatment**

This section summarizes some of the research on the efficacy of therapeutic community and hospital-based treatment programs for homeless individuals.

#### Therapeutic Communities

Several studies describe the perspective and approach of the traditional “Therapeutic Community (TC)” for recovery from drug abuse in greater detail than is appropriate here. (De Leon 1995; De Leon 2000; Rawlings and Yates 2001) For our purposes, we will broadly define the therapeutic community approach as one which considers substance abuse a disorder of the whole person – reflecting problems in conduct, attitudes, moods, emotional management and values. *“The goals of the TC approach are to promote freedom from alcohol and illicit drug use, to eliminate antisocial behavior, and to affect a global change in lifestyle, including personal attitudes and values.”* (Sacks et.al. 1999, p.36)

It should be clarified, though, that not all residential drug abuse treatment programs are TCs, not all TCs are in residential settings, and not all programs that call themselves TCs use the same social and psychological models of treatment. The term "therapeutic community" is widely used to represent a distinct approach in almost any setting, including community residences, hospital wards, prisons, and homeless shelters. As a result, it is difficult to systematically assess the TC as a drug abuse treatment approach, how well it works, where it works best, and for which clients it is most appropriate. (De Leon



1995)

Over time, research of TCs has indicated their overall effectiveness on outcomes such as drug use, social behaviors, psychological functioning, reduced criminality, and employment. This body of evidence paved the way for the development of “modified” therapeutic community programs for special populations, including for homeless mentally ill individuals, over the past decade. (Sacks et.al. 1999)

### *Modifying the TC for Homeless Individuals*

Modified TC programs for homeless individuals, often developed in shelter settings, have tended to incorporate auxiliary services to address clients’ multiple needs, such as educational, vocational, legal, and housing placement services. Other fundamental differences include a greater degree of flexibility and less intensity or confrontation than one would see in more traditional TCs. (Liberty et.al. 1998; Leaf et.al. 1993; Messina 1997; Sacks et.al. 1998) For example, describing a TC for “seriously mentally ill addicts in Bronx, NY,” the authors note: “*The modifications, put as simply as possible, consisted of softening the hard edges of confrontation of the TC, and integrating a mental health treatment team with the drug abuse counselors.*” (McLaughlin and Pepper 1991, p.87) This Bronx TC also maintained the majority of its residents on psychopharmacologic medications, a distinct departure from the traditional TC, where medication is not allowed, and integrated the standard TC treatment approach with the more accepting approach of the 12-step recovery programs. The appropriateness of these modifications is backed up by research into the sociodemographic and psychological profiles of homeless mentally ill chemical abusers, which suggests that the severity of their psychiatric conditions requires programs to reduce “*demand and interpersonal intensity; [put] greater emphasis on affirmation as compared to confrontation; and [provide] more guidance, assistance, and instruction in the use of the peer community.*” (Sacks et.al. 1998; Rahav 1995b) Research findings also support the use of psychotropic medication to moderate psychiatric symptoms as part of the treatment regimen for these clients. (Sacks et.al. 1998, p.553)

### *Program Costs*

A few studies have assessed the costs of modified TC programs for homeless mentally ill individuals. The program described above, for example, was more costly than a standard TC or a residence for the mentally ill, but its cost was still less than half that of state hospital care. Another study examined annual costs for a modified therapeutic community program for homeless dually-diagnosed clients compared with a control group receiving standard care and concluded: “*suitably modified, the TC approach [has] the potential to be highly cost-effective relative to standard services.*” (French et.al. 1999) The most thorough cost analysis to date compared modified TC program costs for homeless dually-diagnosed clients who completed the program, for those who dropped out, and for a control group receiving standard services. The author found, between baseline and the one-year follow-up, program completers had a larger average cost of treatment (\$27,595) than the other two groups, but that those receiving standard treatment had much higher costs for other non-modified TC services (\$29,795 vs. \$1,986 for program completers). Comparing total costs, then, he suggests the total cost of modified TC treatment and other services for program completers may be slightly lower than the total costs for those who dropped out or those who received standard treatment. He concludes, “*Since the modified TC group had better outcomes than the “treatment as usual” group, and the completers had better outcomes than the separators, the modified TC program could be an effective mechanism to reduce the costs of service utilization as well as improve clinical outcomes.*” (McGeary et.al. 2000)

### *Program Effectiveness*

The research assessing the efficacy of modified TCs for homeless mentally ill substance abusers has shown generally positive outcomes; selected studies and their outcomes are summarized in the table

below. Studies of therapeutic communities with homeless clients reveal significant decreases in substance use, improvements in psychiatric well-being (depression, behavioral), and reductions in criminality. However, most of the studies showed improved outcomes for clients in their control groups as well, though often to a slightly lesser extent. And, the modified therapeutic community programs tended to result in more positive outcomes for the more severely mentally impaired individuals, and for those who stayed in the treatment program for longer periods of time. (One author concluded, for example, that their modified TC should be considered a *“treatment approach of last resort for the most seriously troubled dually diagnosed individuals.”* McLaughlin and Pepper 1991)

Nearly all of the studies reviewed here conclude that clinicians should consider the therapeutic community – particularly an appropriately modified version – a viable treatment option for homeless mentally ill clients (Nuttbrock et.al. 1997, Nuttbrock et.al.1998; De Leon et.al. 2000; French et.al. 1999; McGeary et.al. 2000; Rahav et.al. 1995b; Burling et.al. 1994; Westreich et.al. 1996) One author stated it quite strongly, *“The bottom line is that the ideal treatment for the homeless chemically dependent client who can meet entrance criteria is an 18-24 month stay in a TC.”* (Wallace 1992, p.331) Again, though, controlled studies are needed on extended inpatient treatment for patients – particularly those who are dually-diagnosed - and outcomes in longer follow-ups. (Moggi et.al. 1999)

<b>CONTROLLED COMPARISON STUDIES OF MODIFIED THERAPEUTIC COMMUNITIES</b>			
<b>TREATMENT MODALITIES BEING EVALUATED</b>	<b>SAMPLE</b>	<b>CONCLUSIONS</b>	<b>STUDY</b>
Two short-term TCs situated within pre-existing homeless shelters with a clean and sober dormitory and a comparison group.	Substance abusing men	Decreases in drug and alcohol use and in post-treatment criminality; declines in depression. No significant differences between TCs and comparison group on posttreatment drug use, criminality, or depression. This report suggests that short-term therapeutic communities can be successfully implemented in public shelters for homeless men.	Liberty et.al. 1998
Clients sequentially assigned in either of two modified TC programs or in treatment-as-usual control group.	Dually diagnosed Males and females	Those in both TC groups showed significantly greater behavioral improvement, completers of both showed greater improvement than dropouts and treatment-as-usual clients. Findings support effectiveness and longer-term stability of effects of a modified TC program for treating homeless, mentally ill substance users (12 mo. follow-up).	De Leon et.al. 2000
Modified TC vs. "treatment-as-usual" condition	Mentally ill chemical abusers	Examining outcomes and costs – findings indicate that, suitably modified, the TC approach is an effective treatment alternative for homeless MICAs with the potential to be highly cost-effective relative to standard services.	French et.al. 1999
Modified TC vs. treatment as usual - follow-up to above study	Mentally ill chemical users	Modified TC program could be an effective mechanism to reduce the costs of service utilization as well as improve clinical outcomes.	McGeary et.al. 2000

<b>CONTROLLED COMPARISON STUDIES OF MODIFIED THERAPEUTIC COMMUNITIES, <i>continued</i></b>			
<b>TREATMENT MODALITIES BEING EVALUATED</b>	<b>SAMPLE</b>	<b>CONCLUSIONS</b>	<b>STUDY</b>
TC vs. community residences - randomly referred to 2 community residences or a TC. All programs were enhanced to treat dual diagnoses.	Mentally ill chemical abusers	13% completed 12 months or more. All program clients showed reductions in substance abuse and psychopathology, but reductions greater in TCs. Compared with community residences, those in TC were more apt to be drug-free and showed greater improvement in psych symptoms and functioning.	Nuttbrock et.al. 1998
Clients randomly assigned to TC or community residences.	Mentally ill chemical abusers - men	Comparing clients who stayed in 12 months or longer, TC appears more effective in reducing depressive, psychotic, and functional symptoms.	Rahav et.al. 1995b
Residential rehab that integrates cognitive-behavioral and TC techniques to treat homelessness and substance abuse	Veterans with multiple psychosocial problems	F-up at 3, 6, 9, and 12 months – positive outcomes on housing, substance abuse abstinence, employment, and self-rated psychosocial symptoms. <i>"This integrated cognitive-behavioral TC approach appears to be a viable treatment for this subset of homeless and also may be effective for other populations with similar clinical characteristics."</i>	Burling et.al. 1994
Two short-term treatment programs (one residential, one nonresidential) under a modified therapeutic community (TC) framework – study assessed their effectiveness while increasing the level of employment and housing stability .	Substance abusers	Nonresidential group decreased drug-using days more than residential or comparison group.	Stevens et.al. 1993
A quasi-experimental field study was conducted to comparatively evaluate two residential programs for dually diagnosed homeless individuals.	Severely mentally ill and substance abusing. Young, black, males	The experimental model, a hybrid psychosocial & drug rehabilitation program, did significantly better in maintaining clients in care and in successful rehabilitation than did the comparison model, a modified therapeutic community program.	Blankertz et.al. 1994
TC residential program	Dually-diagnosed Males, average age 34 years	Of participants, 33/100 completed the full 6-month program & moved on to another stable living environment. Only 12 had urine toxicologies positive for illicit drugs or alcohol while in the program. These findings support the possibility of applying the residential drug-free therapeutic community treatment method to dually diagnosed patients.	Westreich et.al. 1996

### Hospital-Based

Few controlled research studies have assessed the efficacy of hospital-based inpatient services for homeless individuals. Given the current managed care climate of health care in the U.S., it is not surprising that many studies in this area have tended to focus on variables which affect use of hospital or psychiatric emergency rooms, costs, or retention rates. (Dhossche and Ghani 1998; Guo et.al. 2001) One pilot program devised to increase the access of the homeless mentally ill to short-term hospital-based

treatment within a resource-poor public mental health system concluded that such treatment was valuable for this population, and that it was “currently underutilized.” (Bennett et.al. 1988)

A few studies have used hospital-based treatment programs as “control” groups for studies of residential programs. An example of this is a long-term study assessing the effectiveness of case-managed residential care for homeless veterans when compared with a customary control condition of a 21-day hospital program with referral to community services. The experimental group averaged 3.4 months in transitional residential care with ongoing and follow-up case management for up to one year following treatment; this group showed significant improvement on medical, alcohol, employment, and housing measures during a two-year period. However, the study found the group differences tended to occur during the treatment year and diminish during the follow-up year. And, both groups exhibited significant improvements on the four outcome areas. The authors discovered that veterans had access to and used other services even without the case-managed residential care program, which they suggest accounts for some of the improvements in the control group. (Conrad et.al. 1998)

## **Outpatient Treatment**

Traditional outpatient treatment typically includes individual or group counseling, with clients engaging in therapy sessions once or twice a week. As with other treatment approaches, this is insufficiently intensive to meet the needs of patients with moderate to severe substance abuse disorders nor does it address the multidimensional needs of homeless alcohol or other drug-dependent patients.

### Intensive Outpatient Treatment

The previous section of this report describes the other extreme on this continuum of treatment modalities – intensive inpatient treatment. Between these two is an intensive outpatient treatment approach, which offers some advantages, including financial and cost benefits, attractiveness to patients, and clinical efficacy. (NIH 2001) Some of the clinical benefits, for example, include benefits associated with an increased duration of treatment, flexible levels of care (progressively less intensive care), increased patient caseload levels and improved patient retention. A Center for Substance Abuse Treatment publication assessed how intensive outpatient treatment might be adapted for homeless persons, suggesting,

*It is incorrect and counterproductive to assume that people who are homeless or who experience housing instability cannot be successfully treated for their AOD disorder until their housing needs are met. Rather, because of the intensity of services available in intensive outpatient treatment programs, these programs offer an exceptional opportunity to initiate and maintain an element of stability in homeless people’s lives. Such stability may, in turn, enhance the opportunities for addressing housing needs. (NIH 2001)*

The authors go on to say that addiction and recovery issues should not be obscured by housing issues, and that these programs have a responsibility to help people gain access to temporary housing (at least for the subset of homeless people who were “recently displaced.”). Nevertheless, it is important to grapple with this underlying assumption when considering the overall effectiveness of outpatient programs for homeless individuals.

### Special Considerations for Providing Intensive Outpatient Treatment to Homeless Persons

- Linkages with shelters and public housing authorities
- Need for food, medical care, and social services
- Quality case management
- Long-term rehabilitation goals (job skills, literacy)
- Innovative strategies to engage chronically homeless (IOT programs in shelters)

(NIH 2001, p.59)

### Day Treatment

One of the 14 NIAAA Cooperative Agreement grantees randomly assigned dually diagnosed cocaine (primarily crack-cocaine) abusing homeless clients into one of two treatments: “usual care” or “enhanced” day treatment, and followed-up with them at 2 months, 6 months, and 12 months. The project is summarized here because it is one of the first demonstrations that homeless cocaine abusers can be retained and effectively treated, because it illustrates an attempt to incorporate substance abuse treatment with housing and work needs, and because it raises relevant research questions.

The “*usual care*” intervention – clients are seen 2 times/week for individual and group counseling by trained substance abuse counselors who also function as case managers.

The “*multi-faceted enhanced treatment program*” is based on two phases: day-treatment, and work and housing components.

- During the first phase (2-months in duration), participants are involved in active programming throughout the day (approx. 7:45 am - 2:00pm) every day and reside in shelters or other temporary living arrangements. This 2-month phase includes: therapeutic community meetings; psychoeducational groups (e.g. relapse prevention, assertiveness training, AIDS awareness, relaxation therapy, 12-step, and vocational training); individualized contract development; individual treatment planning and counseling; and process group therapy.
- Once clients have completed the two-month day treatment phase, and a minimum of two weeks of drug-free test results, clients are eligible to participate in abstinence-contingent work and housing components. (Work components include on-the-job vocational skill development and paid work experience.) Once clients have completed both phases of the treatment, they may remain in the drug-free housing on a permanent basis, and program-based work experiences are phased out and clients are assisted in obtaining jobs in the community. Clients are encouraged to attend weekly after-care groups which focus on relapse prevention and work maintenance issues.

(Raczynski et.al. 1993; Milby et.al. 1996; Milby et.al. 2000)

Clients in the enhanced treatment program showed slightly better results on the outcomes examined, including employment, housing, substance use, self-esteem, and depression. Results of a 12-month follow-up revealed that the major therapeutic impact of the enhanced treatment program was on drug abuse outcomes (abstinence). The study was not able to separate the impacts of program-provided housing from those of abstinence contingent housing. The question of the necessity of abstinence contingent housing and work therapy in making behavioral day treatment effective remains unanswered. A later study on clients participating in this enhanced day treatment program found that clients with dual diagnoses showed more improvement in most of the treatment outcomes than did those with substance abuse disorders only. (McNamara et.al. 2001)

Other studies have assessed day treatment programs in non-controlled or randomized evaluations, or have examined the efficacy of individual components of day treatment programs. For example,

- A sample of older veterans who attended 16 weekly group sessions for relapse prevention, using cognitive behavioral and self-management approaches, had higher rates of abstinence than those who did not complete the sessions.(Taylor and Jarvik 2000)
- A study on the efficacy of an on-site day treatment program for dually-diagnosed men in shelters revealed positive effects, which deteriorated after 6 months and reversed after 18 months. (Caton et.al. 1993)
- A cocaine day treatment program that integrated peer leadership and professional supervision revealed positive outcomes. (Galanter et.al. 1998)
- A study examining the impact of a comprehensive HIV education, housing support, and 12-step recovery program in a day treatment program for homeless persons infected with HIV found significant improvements in substance abuse, HIV knowledge, and high-risk behaviors, and housing stability. (Lewis et.al. 2000)

<b>STUDIES OF DAY TREATMENT MODALITIES</b>			
<b>TREATMENT MODALITIES</b>	<b>SAMPLE</b>	<b>CONCLUSIONS</b>	<b>STUDY</b>
Behavioral day treatment plus abstinence contingent housing and work therapy vs. behavioral day treatment only	Cocaine abusers	Behavioral day treatment plus abstinence contingent housing an effective combination for cocaine-abusing homeless persons	Milby et.al 2000
Usual care (weekly individual and group counseling) vs. enhanced day treatment plus abstinent contingent work therapy and housing	Cocaine abusers	Enhanced care had fewer positive toxicologies for cocaine, fewer days alcohol use, fewer days homeless, and more days employed than usual care	Milby et.al. 1996
Enhanced treatment vs. Usual Care (random assignment)	Cocaine abusers	After 6-month follow-up, day treatment clients had fewer self-reported AOD problems, symptoms of depression, more self-esteem, greater confidence in dealing with drug and alcohol high-risk situations. Effects were very moderate.	Raczynski etal 1993
Relapse prevention intervention of 16 weekly group sessions using cognitive-behavioural and self-management approaches	Older veterans	Program completers had much higher rates of abstinence than noncompleters	Taylor and Jarvik 2000
Studied the efficacy of on-site day treatment for homeless mentally ill men in shelters - followed up 18 months after placement in community housing. The 42 subjects had been evaluated before and 6 months after entering an on-site day treatment program.	Dually diagnosed men	By the 18-month follow-up the positive effects of the program at 6 months had deteriorated; 44% had returned to shelters at some point during the follow-up, and the number of men with criminal justice contacts had increased to a proportion exceeding that before the program.	Caton et.al. 1993
Evaluated 340 patients attending a cocaine day treatment program that integrates peer leadership and professional supervision.	Attendees of cocaine day treatment program (39% homeless; 36% with major mental illness)	Sixty-nine percent achieved an acceptable final urine toxicology status, and the median number of program visits was 46. Homelessness, a longer history of cocaine use, and a diagnosis of schizophrenia were associated with positive treatment outcomes. The results support the feasibility of a cocaine abuse treatment model combining professional and peer leadership.	Galanter 1998

STUDIES OF DAY TREATMENT MODALITIES, <i>continued</i>			
TREATMENT MODALITIES	SAMPLE	CONCLUSIONS	STUDY
Examined the impact of a comprehensive HIV education, housing support, and 12-step recovery program in a day treatment program for homeless persons infected with HIV.	Persons with HIV	Statistically significant positive changes in subjects' knowledge of HIV and substance use and a decrease in self reported high-risk behaviors were found. A retrospective chart review also indicated positive changes in housing stability and substance abuse recovery.	Lewis et.al. 2000

### Case Management

Case management generally includes the following functions: outreach, assessment, treatment planning, linkage, monitoring and evaluation, client advocacy, crisis advocacy, system advocacy, supporting counseling, practical support, and program linkage. (Raczynski 1993) However, how those functions are carried out, where they are carried out, the type and amount of training case managers receive, and the case management team structure, all may vary substantially. The “intensity” of the service may also vary - “intensive case management” typically refers to the frequency of contact and/or the ratio of staff to clients. (One estimate suggests a ratio of 1 case manager to 20 clients or less would be considered “intensive”- Raczynski 1993, p.243) These variations may be partially to blame for a lack of research demonstrating the effectiveness of case management or exploring what functions of case management might account for its effectiveness. Despite a general lack of evidence, however, it is generally understood to be an essential element in delivering care for the homeless mentally ill substance user: *“Case management’ and ‘outreach’ are widely believed to be essential elements in a service system for the homeless mentally ill, but data to support these contentions is very scarce.”* (Breakey 1989, p.38; Raczynski 1993)

In 1987 the Alcohol, Drug Abuse and Mental Health Administration sponsored a two-day conference on research methodologies concerning homeless persons with serious mental illness and/or substance abuse disorders. At one point during the conference, attendees self-selected themselves into one of three discussion groups, each focusing on a specific predetermined research question. One of these groups was charged with determining the effectiveness of case management models for homeless individuals. Participants quickly reached consensus that case management is an elusive concept to define, given that case management can differ by type of provider, number of providers, training, setting, function, and social contexts. The group ultimately concluded their discussion with more research questions than recommendations. (NIAAA 1987) A few years later, the Division of Programs for Special Populations (of the Bureau of Primary Health Care) sponsored an invitational conference in 1992 to “forge a common understanding of the context and structure of case management” and to develop a strategy for future research related to case management programs for special populations. At that time, attendees concluded that research in this area *“should focus, at least initially, on documenting and analyzing the case management process and structural features before conducting comparative studies because too many aspects of the case management process are not sufficiently well delineated nor comparable for more sophisticated program performance and client outcome studies.”* (DPSP 1992, p. 10; see also Willenbring et.al. 1991)

In fact, some of the most useful research on case management services with the homeless population has been qualitative. Because case management occurs one-on-one, it is not surprising that issues of control and trust repeatedly arise when assessing service effectiveness. Within a substance abuse treatment setting, the case manager must be particularly adept in balancing the priority of control with that of treatment concerns (Sosin and Ymaguchi 1995; Goldberg and Simpson 1995). One qualitative study of dually diagnosed homeless persons and the process of case management identified the following

“perceived actions or inactions” by the case manager to block the development of trust:

- Policing/surveillance behaviors
  - Excessive or arbitrary or disrespectful monitoring
  - Lack of follow-through
  - Intrusion
  - Drug testing that was not seen as helpful
  - Excessive control
  - Disinterest in or resistance to the client
- (Quimby 1995)

Several studies have attempted, however, to examine the efficacy of case management services and compare various models. The following table provides a sample of such studies, illustrating the variations in the type of sample and recruitment process, setting or location, model of service delivery, type and number of case managers, and research outcomes. As a result of these variations, it is not possible to draw general conclusions or even many trends in this body of research. One consistent finding in the two most recent studies presented in the table is the positive effect of case management on decreased hospital visits, particularly to emergency departments; one of these studies included a control group. (Okin et.al. 2000; Witbeck et.al. 2000)

<b>STUDIES OF CASE MANAGEMENT</b>			
	<b>SAMPLE</b>	<b>CONCLUSIONS</b>	<b>STUDY</b>
A random half of the clients received intensive case management in addition to the other services.	Substance abusers	Case management marginally increased clients' contacts with addictions counselors, but had little effect on the level of other services received or on the tailoring of services to client needs. As a result, case management also had little, if any, effect on outcomes.	Braucht et.al. 1995
Received flexible case management, but half were provided more comprehensive case management services. The housing of each individual over a two-year period was classified in one of three categories: stable independent housing, stable housing in another setting in the community, or unstable housing..	Mentally ill	Clients with access to Section 8 housing certificates were much more likely to achieve independent housing than clients without access to Section 8 certificates, but no differences emerged across the two different levels of case management.	Hurlburt 1996
In this innovative model of case management, case managers operated in dyads with a small caseload of clients. - designed to bind clients to the continuum of substance abuse services within the program and to link clients to other needed services and benefits in the community.	Substance abusers	Outcome measures were taken 4 and 6 months following enrollment. The outcome assessment focused on the use of alcohol and other drugs, residential stability, physical and mental health, employment and educational attainment, and overall quality of life.	Kirby 1993
Studied the impact of case management on hospital service use, hospital costs, homelessness, substance abuse, and psychosocial problems.	Frequent users of public urban emergency department (5 or more visits in prior year)	Case management shown to be cost-effective means of decreasing acute hospital service use and psychosocial problems among frequent ED users	Okin et.al. 2000



STUDIES OF CASE MANAGEMENT, <i>continued</i>			
	SAMPLE	CONCLUSIONS	STUDY
Pilot program provided outreach and intensive case management services (compared with control group)	Homeless individuals who frequently use emergency medical services	Considerable decrease in emergency services use compared to previous year. Control group had no decrease. <i>“Community-based outreach programs can significantly improve patient outcome and provide substantial cost savings for local governments and hospitals.”</i>	Witbeck et.al. 2000
Case management only; case management with housing; “normal aftercare in the community”	Graduates of short-term inpatient substance abuse programs	Case management and case management with housing led to better outcomes (less substance abuse and more residential stability) over a year than did normal aftercare	Sosin et.al. 1995b
3 types of case management: “broker case management” = clients’ needs assessed, services purchased from multiple providers, and client monitored; Assertive community treatment (ACT) only – comprehensive services provided for unlimited period; ACT augmented by support from community workers – assistance with daily living, etc.	Homeless or at risk of homelessness – severe mental illness	Clients assigned to either ACT had better outcomes on: resource utilization, severity of thought disorder, activity level, and satisfaction. Clients in ACT-only had more days of stable housing than in other 2 conditions. No significant effects on income, self-esteem, or substance abuse.	Morse et.al. 1997

### Contingency Management Interventions

Although many substance abuse treatment programs utilize some elements of contingency management, very little research is available to illustrate their effectiveness with homeless clientele. A few studies are available, though, which have indicated some degree of success in implementation and effects. Following is a summary of some of the few studies available in this area:

#### *Monetary Reinforcement of Abstinence*

Two homeless treatment-resistant, male outpatients with schizophrenia and cocaine dependence comprised a small case study. Subjects gave daily urine specimens for testing and received \$25 for each negative test. (Amount of drug use as well as frequency were tested). The authors found fewer tests positive for cocaine, and significantly lower concentrations of benzoylecgonine (BE), during the intervention than during the two-month baseline period. The authors concluded that *“monetary reinforcement of abstinence may decrease cocaine use among cocaine dependent patients with schizophrenia.”* (Shaner et.al. 1997)

A more recent study agrees with the results from this case study: *“Monitoring, recognizing, and rewarding clean urine (through positive social or tangible rewards) reinforces initiated and sustained abstinence and counters the negative attention most health care providers give to clients when their urine tests indicate relapse.”* (Schumacher et.al. 1999, p.91) This author and his colleagues also note that *“random urine testing is a treatment intervention in itself”* citing many of their clients who identified urine surveillance as an important part of their treatment.

#### *Abstinence Contingent Housing and Work*

Schumacher and his colleagues utilized a variety of contingency management approaches to enhance a day treatment program for homeless cocaine-abusers, including abstinent-contingent housing and work therapy. Though they did not explicitly analyze the contingency management approaches apart from the

other treatment elements, they did have success in implementation and determined that they “likely contributed to the successful outcomes measured in the areas of drug and alcohol use, housing, and employment” of their homeless clients. The authors acknowledge, however, that integrating these approaches into an existing program can be challenging for numerous reasons:

*The success of any contingency management approach relies on the strict and consistent enforcement of the contingencies. Evicting clients from their homes and suspending them from work as a consequence of relapse is not always a reasonable or practical endeavor for health care providers. It involves regular and accurate monitoring of alcohol and drug use, which requires additional resources. It also involves the open access to shelters for temporary housing and stable drug-free houses or apartments than can financially survive vacancy during periods of relapse. Finally, it requires an ethical compatibility with and philosophical belief in the theory of contingency management and reinforcement principles. (Schumacher et.al. 1999, p.91.)*

[A more recent study on the relationship between abstinent-contingent housing and work therapy components concluded that treatment attendance was significantly increased. (Schumacher et.al. 2000b)]

#### *Lottery and Vouchers*

In the same program described above, one of the day treatment programs experimented with use of a formalized lottery system whereby clients (all were eligible) would be awarded a lottery ticket for any “defined act of treatment compliance” such as a clean urine test or attending a counseling session. The more tickets they earned, the greater their chances of winning a \$100 voucher for a “goal-related item” such as rent, legal bills, or transportation to see their family. Clients reported that the lottery gave them greater incentive to participate more actively in treatment and to be more fully engaged in the program.

While the authors again acknowledge that this approach requires additional resources, they encourage creative means for obtaining rewards from the business community, but also suggest that the addition of less than \$70 per client (the cost for implementing their lottery/voucher system) might be reasonable for some agencies. Further cost-effectiveness research is needed to explore the costs versus benefits of implementing these types of approaches.

#### *Payee*

One study explored the impact of assigning representative payees for dually-diagnosed homeless individuals on their substance use. The clients (N=1,348) were assessed at baseline and three months after services were initiated; all showed significant improvement on all measures of substance use during the three month period. Those with payees showed no greater improvement in substance abuse than those without payees, although they did have fewer days of homelessness. The authors concluded that:

*This study failed to find evidence that merely adding external money management services to existing services improves substance abuse outcomes among clients who had dual diagnoses and were homeless. Besides assigning a payee, structured behavioral interventions may be needed to produce additional clinical benefits. (Rosenheck et.al. 1997, abstract)*

## PROGRAMMATIC APPROACHES AND ISSUES

### Integrated and Linked Models

There is ample agreement in this body of research literature that any effective treatment must foster interagency collaboration to meet the multiple and complex needs of homeless people to most effectively utilize scarce community resources. (Erickson et.al. 1995; Frances 1988; Gelberg et.al. 1988; Koegel and Burnam 1988; Jones and Katz 1992)

*The literature repeatedly indicates the multifaceted nature of substance abuse disorders and the need for a multidimensional treatment approach that coordinates and enhances the use of a range of community services to effectively reach and treat this population. (Schumacher et.al. 1999, p.78)*

Equally agreed upon is the quantity and complexity of challenges raised for direct service providers and agency staff in coordinating services and expertise in a community, in addition to the obstacles inherent in accessing care from the client's perspective. Barriers to effective collaboration occur at several levels. One author summarizes these barriers this way:

*At the systems level, mental health and substance abuse services are commonly administered by separate governmental agencies that are often in competition for the same dollars and are eager to protect their limited resources. At a minimum, this system schism creates additional steps for dually diagnosed clients who need to access both sets of services. At worst, clients encounter exclusionary admission policies that, in effect, deny the co-occurrence of substance abuse and serious psychiatric disorders. Furthermore, front-line mental health treatment providers are generally unsophisticated and largely untrained about substance disorders, and vice versa.(Kline et.al. 1991, p. 99)*

[Much has been written on barriers encountered when implementing *any* type of program for homeless persons, not the least of which is community resistance. (McCarty et.al. 1991; Dexter 1990; Comfort et.al. 1990; Lubran 1990; Franklin et.al. 1993; Abel and Cummings 1993; McGlynn et.al. 1993)]

Several qualitative studies have attempted to illustrate the depth of these complexities. Erickson and her colleagues, for example, have documented the day-to-day experiences coordinating services from the perspective of staff and providers directly responsible for the care for the homeless adult drug user. (Erickson et.al. 1995; see also Brindis et.al. 1995) And, a recent book by a journalist/physician describes the experiences of navigating the complex array of recovery services from the perspective of several drug-addicted homeless individuals. (Shavelson 2001)

One response to compensate for the fragmentation between services – particularly between psychiatric and substance abuse treatment systems - in the community is to implement a fully integrated treatment model in which a unitary system of care is provided in a single location. Few studies have examined the effectiveness of the integrated treatment model compared to a linkage model, much less the extent to which the model is desirable and for whom. While the methodological complexities raised by a controlled comparison of the models are daunting, it is precisely this type of study which would be especially advantageous for Health Care for the Homeless programs which have experimented with innovative approaches for linking and integrating services for homeless individuals for many years.

One descriptive study compared and contrasted integrated and linkage models for treating homeless, dually diagnosed adults and identified advantages and disadvantages inherent to both models. These

authors suggest that the “interpersonal intensity” of the integrated model might be threatening and unacceptable to homeless dually-diagnosed clients, and that they may resist identifying with the “patient” role and/or with a clinical setting. The linkage treatment model, on the other hand, resolves these issues while recognizing the supportive relationships they may have developed through AA/NA groups in the shelter system. However, *“the linkage treatment model can ensure neither that substance abuse services are actually delivered nor that they are responsive to the clinical needs of the dually diagnosed.”* (Kline et.al. 1991, p.104) The authors therefore suggest the models may be used sequentially – that the linkage model, because of its diffuse, less-demanding approach, may provide *“the only tolerable form of treatment for clients who are actively abusing substances and in a state of denial about their negative consequences.”* (p.104) When the commitment to abstinence grows, the integrated approach may be used to provide the intensive treatment and support the clients’ need to remain abstinent, and finally they may benefit once again from the linkage treatment emphasis on using substance abuse resources in the community.

Again, however, the existing research in this area is largely descriptive. Studies examining integrative models in inpatient settings have noted minimal improvement. One study evaluating the impact of an integrated (mental health/substance abuse) assertive community treatment program on homeless persons with serious mental and substance use disorders found that all but the most severe substance users showed high rates of retention in treatment, housing stability, and community tenure. However, the intervention *“did not yield high rates of abstinence and social benefits in severe users.”* (Meisler et al. 1997)

The following table describes results of a few studies comparing programs which integrate mental health and substance abuse services to more traditional service-linkage approaches. For the most part, the findings are inconclusive. One study randomly assigned clients into one of three groups: a social model residential program providing integrated mental health and substance abuse treatment; a community based nonresidential program using the same social model approach; or a control group with no intervention but free to access other community services. (Burnam et.al. 1995) Another compared a residential program with integrated comprehensive services with on-site shelter-based intensive case management with referrals to a community network of services; and usual care shelter services with case management. (Stahler et.al. 1995) Both studies found no differential improvement among the groups – that clients in all of the models improved over time on outcomes measuring substance use, employment, and housing status. Similarly, two studies comparing outcomes of clients receiving either integrated services or “standard” treatment found minimal differences. (Drake et.al. 1997; Drake et.al. 1998)

A more recent study with dually diagnosed veterans compared two residential programs, one specializing in substance abuse only and one addressing both psychiatric disorders and substance abuse problems. This study found very modest improvements overall, but determined that clients in the integrated scenario were less likely to leave without staff consultation and more apt to be discharged to community housing rather than to further institutional treatment. Kaspro and his colleagues concluded that *“integration of substance abuse and psychiatric treatment may promote a faster return to community living”* for dually-diagnosed homeless veterans. (Kaspro et.al. 1999)

<b>INTEGRATED MODELS</b>			
	<b>SAMPLE</b>	<b>CONCLUSIONS</b>	<b>STUDY</b>
Residential programs specializing in substance abuse only vs. residential programs addressing both psychiatric disorders and substance abuse problems in the same setting	Dually-diagnosed veterans	Integrated: clients less likely to leave without staff consultation; more apt to be discharged to community housing rather than further institutional treatment. "integration of substance abuse and psychiatric treatment may promote a faster return to community living for dually diagnosed homeless veterans. (integration did not differentially benefit those with a psychotic disorder)	Kasprow et.al. 1999
Clients randomly assigned to one of three groups: social model residential program providing integrated mental health and substance abuse treatment; community based nonresidential program using same social model approach; control group with no intervention but free to access other community services	Dually-diagnosed	Followed up at 3, 6, and 9 months – outcomes varied little across all groups	Burnam et.al. 1995
Integrated comprehensive residential services at one site; On-site shelter-based intensive case management with referrals to a community network of services; usual care shelter services with case management	Men with alcohol and/or drug problems	No differential improvement among groups (all improved over time in substance use, employment, stable housing)	Stahler et.al. 1995
Compared integrated mental health and substance abuse treatment within an assertive community treatment (ACT) approach with a standard case management approach.	Dually-diagnosed (mean age 34 years)	ACTs showed greater improvements on some measures of substance abuse and quality of life, but groups were equivalent on most measures (including stable community days, hospital days, psychiatric symptoms, remission of substance use disorder).	Drake et.al. 1998
Quasi-experimental design used to compare integrated treatment (mental health, substance abuse, and housing interventions) with “standard treatment”	Dually-diagnosed	18-month follow-up showed integrated treatment group had fewer institutional days, more days in stable housing, more progress toward substance abuse recovery, greater improvement of alcohol use disorders. Abuse of drugs other than alcohol (primarily cocaine) improved similarly for both groups. Secondary outcomes, such as psychiatric symptoms, functional status, and quality of life, also improved for both groups, with minimal group differences favoring integrated treatment.	Drake et.al. 1997

### **Targeted Programs**

As noted earlier, research in this area has relatively recently shifted emphasis to questions of what specific programs work for whom, working on the assumption that various subgroups of the homeless population might benefit from approaches tailored to their specific needs. The largest body of research on targeted programs has focused on the subgroups of women, children and adolescents; only recently have a few studies focused on the needs of the “older” substance abuser. (Kennedy et. al. 1999; Royer et.al.

2000).

### Gender-Specific Treatment

The research is virtually unanimous in concluding that gender differences exist not only in how the engagement process is experienced (see previous discussion), but also in routes to homelessness and in treatment needs. (Opler et.al. 2001; Ridlen et.al. 1990; Bassuk et.al. 1996; Geissler et.al. 1995; Kaltenbach et.al. 1998; Nyamathi et.al. 2000)

Studies which have examined outcomes of women-only programs versus mixed-gender programs have unanimously concluded that women-specific programs result in more positive outcomes for women, especially in terms of program retention. One such study compared characteristics of 4,117 women treated in publicly funded residential drug treatment programs in Los Angeles County between 1987 and 1994 by program gender composition, and found that although the women in women-only programs had more problems at the program outset, they spent more time in treatment and were more than twice as likely to complete it as compared with women in mixed-gender programs. (Grella 1999)

The need for gender-specific programs is often linked to the higher incidence of sexual abuse victimization and subsequent effects of that abuse on their drug misuse. (Coughey et.al. 1998; Brunette and Drake 1998; Alexander 1996; Buckner et.al. 1993; Goodman et.al. 1997; North et.al. 1996; Rosenberg et.al. 1996; Wenzel et.al. 2000; Bassuk et.al. 1996) One recent study helps to clarify the complex relationship between gender, abuse, and homelessness:

*Gender differences indicate that, except for antisocial personality, females yield higher rates on measures of both psychiatric disturbance and abuse. The relationship between psychopathology and abuse also appears to be much stronger for females than for males. However, the relationship between abuse and adult homelessness appears to be similar for men and women. The gender differences in the relationship between histories of abuse and manifestations of psychiatric disturbance support a hypothesis that has been proposed elsewhere: Females internalize the trauma associated with abusive experience, while males externalize it. The findings suggest that, although there may be a need for gender-specific targeted interventions, treatment providers must also recognize that the impact of abuse seems to transcend gender within this population. (Jainchill et.al. 2000)*

Most of these studies conclude that treatment approaches for women must take their unique issues into account, particularly for dually-diagnosed homeless women. (“*Dually diagnosed women need a substantially different treatment paradigm from men.*” Westreich et.al. 1997) Some specific suggestions include, for example,

- Female-only aftercare groups “*where women can safely discuss physical and sexual abuse issues related to their misuse of drugs.*” (Coughey et.al. 1998)
- Treatment for these women needs to incorporate an active program of trauma recovery. A program of trauma-based treatment that includes supportive group therapy, cognitive reframing, and social skills training... (Harris 1996)
- “*A more empathic, empowering treatment orientation emphasizing personal validation/affirmation, as well as articulation and expansion of a woman’s internal experience, might promote significant developmental growth and subsequent behavioral changes.*” (Cook 1995)

- Modified therapeutic community programs have been developed, using elements such as family style housing, day care and after-school programs, gender-specific curricula focusing on parenting issues, and modifications of the daily routine to accommodate parenting responsibilities with some degree of success. (Sacks et.al. 1999; Comfort et.al. 1990)

Specific needs of homeless mothers with children are often not met in existing treatment programs; some limitations include that many are modeled after men, that they separate mothers from their children during treatment, and that they focus on adult recovery rather than being family-oriented. (Smith et.al. 1993) Most fundamentally, the research on homeless mothers with substance abuse disorders points to the need for childcare, the lack of which has created a significant barrier for many women seeking treatment. In 1993, one author noted that *“Offering such parenting and childcare services within a substance abuse treatment facility is a fairly new and needed innovation. A significant barrier for many women currently seeking substance abuse treatment is that they must give up their children upon entry into the rehabilitation program.”* (Conrad et.al. 1993) More recently, a review of NIAAA grantees found non-residential programs failing to improve or even sustain low retention of women with children in treatment, concluding that homeless addicted women with children simply will not stay in nonresidential programs. (Orwin et.al. 1999) So, while few studies have systematically assessed the impact of keeping the family intact during the treatment process, the fact that separating children from their mothers during treatment prevents many women from engaging in treatment in the first place should be weighed heavily.

Re-unifying mothers with their children is a related topic which has recently been found to lead to positive outcomes for women. A recent evaluation assessed a program offering a continuum of housing and related support services for graduates of transitional housing and treatment programs for mental illness and co-occurring substance abuse. The program – the Emerson-Davis Family Development Center in Brooklyn, New York City – assisted these female graduates in gaining back their children from foster care and other placements. The clinical data available from the project suggested that the *“family reunification process leads to gains for most participants, even when reunification is not successful.”* (no author, 2000)

### Youth and Adolescents

Though evidence is ample for the substance abuse problems and treatment needs of some populations of children and adolescents, many are outside of the mainstream social system and are in need of special service delivery strategies. (Farrow 1995) Some of these sub-populations include runaway and homeless youth, and others at-risk for homelessness including youth in the juvenile justice system, gang members, and gay or lesbian adolescents. Reviewing literature on targeted treatment programs for these subpopulations was beyond the scope of this report, but a brief search for research on such programs suggests it is scarce. One author who reviewed service delivery strategies for high-risk youth concluded with recommendations for the following types of research: ethnographic studies to assess treatment experiences and reasons for drop-out; tests of brief interventions, especially those using peer-counseling strategies; studies of day treatment model, including those in shelters and drop-in centers; and research to promote chemical dependency rehabilitation within the juvenile justice system and to develop public financing strategies for adolescent treatment. He concludes that *“Almost nothing is known about how these youth are treated. Researchers have almost no outcome studies, even considering nonscientific reports.”* (Farrow 1995, p.46) One recent study, however, assessed the effectiveness of a broad-spectrum health intervention program for homeless and runaway youth and concluded that an organized program of interventions in a residential care facility for homeless teens can significantly reduce drug dependence. (Steele and O’Keefe 2001). In general, a better understanding from evidence-based research on treatment needs and experiences of this important sub-population is critical to a comprehensive picture of what types of substance abuse treatment works for homeless people generally.

## Brief Interventions

The current trend in substance abuse treatment generally is a move away from specialist treatment settings, in part because of the effects of managed care on substance abuse treatment, because people with substance abuse issues do not always end up in treatment (usually in jails or other systems), and because a lot of people are not interested in specialist treatment settings. One result of this trend has been increased emphasis on brief interventions. The outcomes literature with non-homeless individuals has provided evidence that well-designed intervention strategies which are feasible within relatively brief-contact contexts, such as primary health care settings, can be as or more effective than more extensive treatment. Some common motivational elements of effective brief interventions with non-homeless persons have been identified in a thorough review of the literature, and are summarized in the table below according to the FRAMES acronym developed by the authors of the review.

### Elements Common to Effective Brief Interventions

- ⇒ *FEEDBACK of personal risk or impairment.* People want to hear information about themselves as individuals rather than lectures which provide information about the general effects of alcohol on the brain, etc.
- ⇒ *Emphasis on personal RESPONSIBILITY for change.* Across cultures, there is an emphasis on informing the participant that the success of their treatment is up to them. In some cases, this is stated overtly (I can't tell you what to do, your family can't make this decision for you, etc.) while in others the message is delivered more subtly.
- ⇒ *Clear ADVICE to change.* The message is delivered in some way that the (provider) is concerned about them and why.
- ⇒ *A MENU of alternative change options.* Present a variety of ways they can go about deciding to address their problem. If you present a variety of things and tell them to choose among them, they'll choose. If you give them one option they're going to tell you why it won't work.
- ⇒ *Therapeutic EMPATHY as a counseling style.* The providers who are empathetic and compassionate – regardless of the treatment method – are most successful. This is the mirror opposite of a confrontational approach.
- ⇒ *Enhancement of client SELF-EFFICACY or optimism.* If they are optimistic that they can succeed, the chances are better that they will.

(Bien et.al. 1993)

While it may be that some of these elements are useful with homeless individuals, the literature on brief interventions with homeless individuals is rare and does not include evidence about their effectiveness. One study found that homeless clients are more likely to stay with brief interventions: “*On average, longer interventions can retain clients for longer periods of time, but in terms of relative ‘dose’ (that is, the ratio of actual to intended duration), briefer interventions tend to fare better. Again, however, ‘Which is ultimately more beneficial to this client population is open to question.’*” (Orwin et.al. 1999) The consensus among researchers seems to be that the homeless population simply cannot benefit from such short-term interventions given the multitude and complexity of their problems.



## Treatment Matching

*Eventually, if we are to be successful in treating addictions in indigent populations, we will have to move away from asking “How successful are drug treatments” to more meaningful multidimensional examinations of knowing which types of programs in which kinds of environmental contexts are most effective for which types of clients with which specific substance abuse programs and concurrent life concerns. (Stahler et.al. 1995, see also Grella 1993; Wallace 1992; Inciardi and Saum 1997)*

Project MATCH (Matching Alcohol Treatments to Client Heterogeneity) is a multi-site clinical trial which has provided the most careful and extensive test to date of the contributions of client-treatment matching to treatment outcomes. The goal of the project was not to assess which treatment produced the best outcomes per se, but rather whether treatments that were appropriately matched to clients' needs and characteristics produced better outcomes than did treatments that were not matched. The results yielded minimal support for matching patient characteristics to treatment types. Other than a few relationships between patient characteristics and treatment, the *“findings did not show that matches between patient characteristics and treatments produced substantially better outcomes.”* (NIAAA 2000) Instead, the three treatment models assessed – cognitive-behavioral, motivational enhancement, and 12-step facilitation – proved approximately equal in their efficacy; any one of the treatments would be expected to achieve results similar to the others. While this study expressly excluded homeless persons, it does challenge the general notion that treatment matching is a prerequisite for optimal substance abuse treatment.

A related theory is that clients who select the model of treatment they want will yield positive outcomes because they will (the argument goes) be more apt to stick with it, and because people tend to have wisdom about what works best for themselves. While self-matching has been shown to be effective in other areas, it has not been explored fully in the alcohol literature. Indeed, one controlled study with dually diagnosed homeless individuals tested the element of treatment choice and found no effects. Clients were either placed in an assertive community treatment program or chose from among five different treatment programs; results showed no significant effects on housing, psychotic symptoms, depression or substance abuse. (Wright and Devine 1995; Calsyn et.al. 2000)

One area, however, which remains virtually unexplored in the treatment literature with homeless people is what staff “styles” work most effectively for which clients. Dr. William Miller, in a discussion with the Translating Research Into Practice subcommittee, said though he has been trained in terms of clinical techniques, he is currently focusing more on “how we do what we do” rather than on “what we do.” He cited one study in which nine therapists were all trained the same and received the same supervision, but their success rates (with non-homeless individuals) ranged from 25% to 100%. The researchers were able to predict their success based on the empathy the staff showed. (see also Bien et.al. 1993) It should be noted that, among studies of brief interventions with non-homeless individuals, an empathetic approach was always the key: *“no reports of effective brief counseling have resembled the directive, aggressive, authoritarian, or coercive elements that are sometimes associated with alcohol/drug abuse counseling, though some have called their interventions ‘confrontational.’”* (Bien et.al. p.327) In short, clinical style may account for a large amount of variance. This idea of “staff matching” may be especially relevant for a homeless population which tends to exhibit disaffiliation, social isolation, and lack of trust (see previous discussion). Certainly appropriate staff training plays a role - especially for programs addressing mental health and substance abuse needs (Zweben 2000), though the impact of staff training has not always been found to be significant with this population, and may simply be insufficient.

This idea has been alluded to among homeless researchers before, including this assertion by a participant at a NIAAA-sponsored conference on homelessness and substance abuse in 1989: *“Whether a program*

works may not depend on whether it is a social model or clinical model, but ..on the kind of people who are working in it. 'Maybe we need to get at some way of replicating not programs but people...There is always a tendency to confuse interpersonal competence with professional competence, and we need both.' (Huebner and Crosse in NIAAA 1989, p.57) And, ethnographic studies of substance abuse treatment with homeless individuals have repeatedly mentioned the important role staff style and attitude play in outcomes, especially for dually diagnosed individuals. (e.g. Bazemore and Cruise, 1993; Stahler et.al. 1995; Shavelson 2001; Blankertz and Cnaan 1993; Moneyham and Connor 1995)

## **Research Issues**

A variety of well-documented obstacles exist to conducting research with the homeless population, ranging from definitional issues to communication problems. (Rossi in NIAAA 1987) In this section, we focus only on some issues which are especially relevant to this specific type of research, namely self-reporting validity issues, the use of the Addiction Severity Index (ASI), and randomization.

### Self-Reporting Validity Issues

The validity of self-reported drug use has been an issue examined among populations at high-risk for substance use, but relatively few have focused on homeless substance abusers. Following are two studies which have explored self-reporting validity specifically among homeless cocaine-abusers in substance abuse treatment programs.

- For a sample of 179 homeless/transient adults in New York state, self-reports of “current” cocaine use (past 30 days) were compared with results of radioimmunoassay of hair (RIAH). The authors *found only 26% of those persons whose hair tested positive for cocaine (n=115) admitted to having used cocaine in the past 30 days.* Subjects eligible for treatment, as indicated by a DSM-III-R diagnosis of cocaine dependency, were nearly four times as likely to admit current cocaine use than those who were not dependent. (Appel et.al. 2001)
- The validity of self-reported crack cocaine use among 131 homeless persons participating in an outpatient substance abuse treatment research demonstration project was assessed by comparing the concordance of self-report and urinalysis results. The subjects were participants in either a Usual Care outpatient program or an Enhanced Care day treatment program that included drug free contingent work therapy and housing. For all subjects across four evaluation points, *the false negative classification by self-report (i.e., denied verified use) rate for crack cocaine use was 32.0%.* Denied verified use was greater in Usual Care (34.9%) than in Enhanced Care clients (23.7%) and greater at follow-up as compared to treatment entry for all clients. The findings are explained in terms of social desirability and the influence of treatment contingencies and greater accountability specific to the Enhanced Care program. (Schumacher et.al. 1995)

These data have implications both for program and research designs for this population.

### ASI: Addiction Severity Index

Studies which have assessed the reliability and validity of the widely-used Addiction Severity Index assessment tool have consistently found it acceptable for use with homeless substance abusers, though certainly more evidence should be amassed before accepting it for all subgroups of homeless substance abusers. (Argeriou et.al. 1994; Zanis et.al. 1994)

## Randomization – A Question of Ethics

Researchers rationalize that randomized experiments are the research design best suited to ruling out competing explanations for observed effects. (Devine et.al. 1994) And it is generally understood that randomization in a field setting is going to be somewhat messy due to the human element, but elaborate statistical controls can be used to address most of this. In short, researchers hold randomized experiments up as the ideal. In a synthesis of results from the NIAAA Community Demonstration Program, Orwin and his colleagues made the following recommendation – among others - for future multi-site research demonstrations with the homeless population:

*Consideration should be given to mandating randomized designs or, short of that, mandating an assignment process based on clients' need for treatment, as determined by their scores on pretreatment measures. This permits analyses that can correctly adjust for nonequivalences and produce unbiased estimates of the treatment effect, even without random assignment. (Orwin et.al. 1994, p.344)*

And, in fact, all of the Cooperative Agreement Projects (research demonstration projects) funded by NIAAA featured a randomized experimental design. However, in a synthesis of results from these Cooperative Agreement Projects – projects funded expressly to “support and evaluate the effectiveness of interventions for homeless persons with alcohol and other drug problems” - Conrad and his colleagues suggested randomly assigning subjects in those interventions was problematic. “*Several of the projects discussed the fact that the random assignment of subjects to experimental and control conditions was problematic for project staff, clients, and researchers. This issue is not trivial, but deserves careful attention in future studies of community-based interventions.*” (Conrad et.al. 1993, p.244) Indeed, a special issue of the New Directions for Program Evaluation journal published in the subsequent year was devoted to “critically evaluating the role of experiments” and featured chapters by several of the researchers involved with the Cooperative Agreement Projects. These researchers discussed the variety of barriers they encountered in implementing their experimental designs, including ethical and internal validity issues. Most common were complaints about program staff “sabotaging” or “violating” the random assignment of clients into the treatment models despite their various attempts to preempt this from happening. Program staff challenged the necessity, efficiency, appropriateness, and ethics of randomization. (“*Randomization wrests control of services away from us, the program people, the ones on the front lines, the ones who know what’s going on.*”) (Devine et.al. 1994; Schumacher et.al. 1994)

The degree to which these and other researchers are concerned about effects of their research design on clients and program staff – in addition to effects on their study findings - varies, though one article clarified in some detail the deleterious effects the experimental design had on clients, service providers, the project, and the research team. (Johnston and Swift 1994) To reiterate Conrad, though, recurring concerns (whether fully acknowledged or investigated) about the impacts of randomly selecting homeless clients into treatment modalities for the purpose of research is not insignificant, particularly given the importance placed upon this research design by funding entities and publishers.

### **SUMMARY AND IMPLICATIONS**

Reviewing results from the fourteen research demonstration projects on alcohol and other drug abuse treatment for homeless persons (NIAAA/NIDA Cooperative Agreement grantees), Stahler elicited the following themes:

- *It is essential to develop treatment programs that not only focus on the addiction but also address the tangible needs of homeless clients, particularly housing, income support, and employment.*

- *Dropout rates are high for this population no matter what type of intervention was provided.* Part of the reason for this may be associated with a *lack of motivation* for treatment. Since motivation for treatment seems to be positively related to retention and outcomes, there is *therefore a need to develop flexible, low demand interventions* which can accommodate clients who are not willing to initially commit to more extended care. Hopefully, clients can be gradually brought into more intensive treatment modalities when their motivation increases.
- *Clients in both experimental and control groups seemed to improve significantly by the end of treatment.* However, with a few exceptions, *treatment modality did not appear to differentially affect outcomes in most cases.*
- *Treatment outcomes appeared to be particularly positive after treatment, but seemed to diminish over time.* This suggests the need for *longer-term, continuous interventions for this population.* Aftercare needs to address not only the maintenance of sobriety, but also the tangible needs and social isolation of clients.
- *It appears that there are certain subgroups of clients who will have more positive outcomes than others,* most notably those with higher educational attainment, with less severe substance use, less criminal involvement, and those who are less socially isolated. This type of information may be useful for *matching clients to appropriate treatment services.* (Stahler 1995, pp.xxii-xxiii)

Though his final conclusion has been challenged somewhat in the research, the first four still hold as legitimate summary statements about this body of literature. This review of the peer-reviewed published literature has also raised some additional, or at least supplementary, issues worthy of consideration. For example:

- Much of this research begins with the premise that homelessness is a static variable. Researchers examine efficacy of specific treatment modalities and techniques to engage or retain homeless individuals in treatment with the understanding that outcome “success” resides in the individual. This underlying assumption obscures the social and economic causes of homelessness, drawing our attention away from structural solutions.
- “Controlled” quantitative research which uses design features such as randomization into “treatment” and “control” groups, is most frequently funded because of the scientific rigor the design provides. However, in addition to the methodological complexities raised when using such designs with homeless individuals, it raises serious ethical concerns as well. Issues of coercion and control must be taken especially seriously when studying experiences of persons in very vulnerable situations. The growing body of qualitative research on substance abuse treatment and homeless individuals has been helpful in articulating the implications of some of these concerns, and should be considered as a meaningful and appropriate method for increasing our knowledge.
- This research seems to conclude that programs targeted for women have been successful. There remains a need to better understand the efficacy of programs targeted toward other specific subpopulations of homeless persons, especially youth and adolescents.

This review of the literature reveals significant deficits in the research literature, including: 1) a need for better understanding the effectiveness of integrated versus linked services, which model is desirable and for whom, and; 2) a need for better understanding the importance of staff approach to care. The experience of Health Care for the Homeless projects has much to offer in these areas, and should be explored by future researchers.

## APPENDIX A

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## APPENDIX B NIAAA AND NIDA FUNDING

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### ***Community Demonstration Projects for Alcohol and Other Drug Abuse Treatment of Homeless Individuals***

Mission: "To develop outreach and treatment services for homeless substance abusers; explore usefulness of diverse treatment models for this population."

9 projects funded for 2-3 years - \$23 million

May 1988

1. Clitheroe Center, Anchorage AK
2. Stabilization Services Project, Boston MA
3. Sober Transitional Housing and Employment Project (STHEP), Los Angeles CA
4. Project Connect, Louisville KY
5. Community Treatment of the Chronic Public Inebriate, Minneapolis, MN
6. Women at Risk, New York NY
7. Alameda County Dept Comprehensive Homeless Alcohol Recovery Services (CHARS), Oakland CA
8. Diagnostic and Rehabilitation Center, Philadelphia PA
9. Rehabilitation Program for Dually Diagnosed Homeless, Philadelphia PA

### ***Cooperative Agreement Program – Cooperative agreements for Research Demonstration Projects on Alcohol and Other Drug Abuse Treatment for Homeless Persons.***

Mission: "To support and evaluate the effectiveness of interventions for homeless persons with alcohol and other drug problems."

14 projects funded for 3 years - \$48 million

September 1990

1. Therapeutic Community Model, Tucson AZ
2. Case Mgmt and Support Housing, Chicago IL
3. Social detox and monitored housing, New Orleans LA
4. Outpatient clinic and community center, Birmingham AL
5. AOD treatment agency and transitional housing, Denver CO
6. VA hospital, Evanston IL
7. Community-based socialization center and residential tx facility, Los Angeles CA
8. Monitored shelter, New Haven CT
9. Hospital outpatient clinic – transitional housing – vocational training, Newark NJ
10. Transitional housing and treatment facility, Philadelphia PA
11. County-operated detox, Seattle WA
12. Family shelters and supervised housing, St. Louis MO
13. Private mental health agency and transitional housing, Washington DC
14. Community-based detox, Albuquerque NM

## BIBLIOGRAPHY

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1. "Health care needs of homeless and runaway youths." Council on Scientific Affairs. 262(10):1358-61, 1989.
2. "Supportive residential services to reunite homeless mentally ill single parents with their children." Psychiatric Services. 51(11):1433-1435, 2000.
3. Abel MH, Cummings P. "A demonstration program for homeless male alcohol and other drug abusers." Journal of Mental Health Administration. 20(2):113-25, 1993.
4. Acosta O, Toro P. "Let's ask the homeless people themselves: a needs assessment based on a probability sample of adults." American Journal of Community Psychology. 28(3):343-66, 2000.
5. Alcabes P, Vlahov D, Anthony J. "Characteristics of intravenous drug users by history of arrest and treatment for drug use." The Journal of Nervous and Mental Disease. 180(1):48-54, 1992.
6. Alexander MJ. "Women with co-occurring addictive and mental disorders: An emerging profile of vulnerability." American Journal of Orthopsychiatry. 66(1):61-70, 1996.
7. Alfs DS, McClellan TA. "A day hospital program for dual diagnosis patients in a VA Medical Center." Hospital and Community Psychiatry. 43(3):241-4, 1992.
8. Appel PW, Hoffman JH, Blane HT, Frank B, Oldak R, Burke M. "Comparison of self-report and hair analysis in detecting cocaine use in a homeless/transient sample." Journal of Psychoactive Drugs. 33(1):47-55, 2001.
9. Argeriou M, McCarty D, Mulvey K, Daley M. "Use of the Addiction Severity Index with homeless substance abusers." Journal of Substance Abuse Treatment. 11(4):359-65, 1994.
10. Argeriou M, McCarty D. "The use of shelters as substance abuse stabilization sites." Journal of Mental Health Administration. 20(2):126-37, 1993.
11. Bassuk EL, Weinreb LF, et al. "The characteristics and needs of sheltered homeless and low-income housed mothers." The Journal of the American Medical Association. 276(8):640-6, 1996.
12. Baumohl J. "Editor's Introduction to 'Alcohol, Homelessness, and Public Policy.'" Contemporary Drug Problems. 16:281-300, 1989.
13. Baumohl J. (ed) "Homelessness and substance abuse: Beyond epidemiology." Contemporary Drug Problems. 20(3), 1993.
14. Bazemore G, Cruise PL. "Resident adaptations in an Alcoholics Anonymous-based residential program for the urban homeless." Social Service Review. 67: 599-616, 1993.
15. Bebout RR, Drake RE, et al. "Housing status among formerly homeless dually diagnosed adults." Psychiatric Services. 48(7): 936-41, 1997.
16. Bell DC, Williams ML, et al. "An experimental test of retention in residential and outpatient programs." The American Journal of Drug and Alcohol Abuse. 20(3):331-40, 1994.

17. Bennett MI, Gudeman JE, et al. "The value of hospital-based treatment for the homeless mentally ill." *American Journal of Psychiatry*. 145(10): 1273-1276, 1988.
18. Berg IK, Hopwood L. "Doing with very little: Treatment of homeless substance abusers." *Journal of Independent Social Work*. 5(3-4):109-119, 1991.
19. Beshai NN. "Providing cost efficient detoxification services to alcoholic patients." *Public Health Reports*. 105:475-481, 1990.
20. Bien T, Miller WR, Tonigan JS. "Brief interventions for alcohol problems: A review." *Addiction*. 88:315-336, 1993.
21. Blankertz LE, White KK. "Implementation of rehabilitation program for dually diagnosed homeless." *Alcoholism Treatment Quarterly*. 7(1):149-164, 1990.
22. Blankertz LE, Cnaan RA. "Serving the dually diagnosed homeless: Program development and interventions." *Journal of Mental Health Administration*. 20(2):100-112, 1993.
23. Blankertz LE, Cnaan RA. "Assessing the impact of two residential programs for dually diagnosed homeless individuals." *The Social Service Review*. 68(4):536-560, 1994.
24. Blankertz LE, Cnaan RA, et al. "Childhood risk factors in dually diagnosed homeless adults." *Social Work*. 38(5):587-596, 1993b.
25. Block A, Braucht GN, et al. "CMHS/CSAT collaborative demonstration program for homeless individuals." *Journal of Social Distress and the Homeless*. 6(4):261-274, 1997.
26. Bonham GS. "Recruitment of homeless men with alcohol and drug problems into case management." *Alcoholism Treatment Quarterly*. 9:57-77, 1992.
27. Borkman TJ, Kaskutas LE, Barrows D. "The social model: A literature review and history." *Center for Substance Abuse Treatment*. 1999.
28. Braucht GN, Reichardt CS, et al. "Effective services for homeless substance abusers." *Journal of Addictive Diseases*. 14(4):87-109, 1995.
29. Breakey WR. "Treating the homeless." *Alcohol Health and Research World*. Spring: 42-90, 1987.
30. Breakey WR, et.al. "Health and mental health problems of homeless men and women in Baltimore." *Journal of the American Medical Association*. 262(10):1352-1357, 1989.
31. Brindis C, Pfeffer R, et al. "A case management program for chemically dependent clients with multiple needs." *Journal of Case Management*. 4(1):22-8, 1995.
32. Brunette M, Drake RE. "Gender differences in homeless persons with schizophrenia and substance abuse." *Community Mental Health Journal*. 34(6):627-42, 1998.
33. Buckner JC, Bassuk EL, et al. "Mental health issues affecting homeless women: Implications for intervention." *American Journal of Orthopsychiatry*. 63(3):385-399, 1993.



34. Burling TA, Seidner AL, et al. "A cognitive-behavioral therapeutic community for substance dependent and homeless veterans: treatment outcome." *Addictive Behaviors*. 19(6):621-9, 1994.
35. Burnam MA, Morton SC, et al. "An experimental evaluation of residential and nonresidential treatment for dually diagnosed homeless adults." *Journal of Addictive Diseases*. 14(4):111-34, 1995.
36. Burt MR, Aron LY, et.al. "Homelessness: programs and the people they serve. Findings of the National Survey of Homeless Assistance Providers and Clients – Summary." Prepared for: Interagency Council on the Homeless, 1999.
37. Calsyn RJ, Morse GA, Klinkenberg WD, Trusty ML. "Reliability and validity of self-report data of homeless mentally ill individuals." *Evaluation and Program Planning*. 20(1):47-54, 1997.
38. Calsyn RJ, Winter JP, et al. "Do consumers who have a choice of treatment have better outcomes?" *Community Mental Health Journal*. 36(2):149-60, 2000.
39. Caton CL, Shrouf PE, et al. "Correlates of codisorders in homeless and never homeless indigent schizophrenic men." *Psychological Medicine*. 24(3):681-8, 1994.
40. Caton CL, Wyatt RJ, et al. "Follow-up of chronically homeless mentally ill men." *The American Journal of Psychiatry*. 150(11):1639-42, 1993.
41. Center for Substance Abuse Treatment (CSAT), Substance Abuse and Mental Health Services Administration. Improving substance abuse treatment: The national treatment plan initiative. Changing the Conversation. November 2000.
42. Cohen E, Stahler G. "Life histories of crack-using African American homeless men: salient themes." *Contemporary Drug Problems*. 25(2):373-97, 1998.
43. Comfort M, Shipley TE, et al. "Family treatment for homeless alcohol/drug-addicted women and their preschool children." *Alcoholism Treatment Quarterly*. 7(1):129-147, 1990.
44. Conrad KJ, Hultman CI, et al. "Treatment of the chemically dependent homeless: A synthesis." *Alcoholism Treatment Quarterly*. 10(3-4):235-246, 1993.
45. Conrad KJ, Hultman CI, et al. "Case managed residential care for homeless addicted veterans. Results of a true experiment." *Medical Care*. 36(1):40-53, 1998.
46. Cook MA. "Substance-abusing homeless mothers in treatment programs: A question of knowing." *Contemporary Drug Problems*. 22(2):291-316, 1995.
47. Coughy K, Feighan, et al. "Retention in an aftercare program for recovering women." *Substance Use and Misuse*. 33(4):917-33, 1998.
48. Culhane DP, Avery JM, et al. "Prevalence of treated behavioral disorders among adult shelter users: A longitudinal study." *American Journal of Orthopsychiatry*. 68(1):63-72, 1998.
49. De Leon G. The Therapeutic Community: Theory, Model, and Method. New York, NY: Springer Publishing Company, 2000.

50. De Leon G, Sacks S, et al. "Modified therapeutic community for homeless mentally ill chemical abusers: emerging subtypes." *The American Journal of Drug and Alcohol Abuse*. 25(3):495-515, 1999.
51. De Leon G, Sacks S, et al. "Modified therapeutic community for homeless mentally ill chemical abusers: treatment outcomes." *The American Journal of Drug and Alcohol Abuse*. 26(3):461-80, 2000.
52. De Leon G. "Residential therapeutic communities in the mainstream: diversity and issues." *Journal of Psychoactive Drugs*. 27(1):3-15, 1995.
53. De Rosa CJ, Montgomery SB, et al. "Service utilization among homeless and runaway youth in Los Angeles, California: rates and reasons." *The Journal of Adolescent Health*. 24(6):449-458, 1999.
54. Dennis DL, et al. "A decade of research and services for homeless mentally ill persons: Where do we stand?" *American Psychologist*. 46:1129-1138, 1991.
55. Devine JA, Brody CJ, et al. "Evaluating an alcohol and drug treatment program for the homeless: An econometric approach." *Evaluation and Program Planning*. 20(2):205-215, 1997.
56. Devine JA, Wright JD, et al. "Issues in implementing a randomized experiment in a field setting." *New Directions for Program Evaluation*. 63:27-40, 1994.
57. Dexter RA. "Treating homeless and mentally ill substance abusers in Alaska." *Alcoholism Treatment Quarterly*. 7(1):25-30, 1990.
58. Dhossche DM, Ghani S. "A study on recidivism in the psychiatric emergency room." *Annals of Clinical Psychiatry*. 10(2):59-67, 1998.
59. Dickey B, Gonzalez O, et al. "Use of mental health services by formerly homeless adults residing in group and independent housing." *Psychiatric Services*. 47(2):152-8, 1996.
60. Division of Programs for Special Populations (DPSP) – Bureau of Primary Health Care. "Case management for special populations." 1992.
61. Dixon L, Weiden P, et al. "Assertive community treatment and medication compliance in the homeless mentally ill." *American Journal of Psychiatry*. 154(9):1302-1304, 1997.
62. Dixon LB, Osher F. Housing for persons with chronic mental illness and substance use disorders. In Lehman AF, Dixon LB (eds.) Double jeopardy: Chronic mental illness and substance use disorders. A. F. Langhorne PA: Harwood Academic Publishers: 211-228, 1995.
63. Dobscha SK, Delucchi K, et al. "Adherence with referrals for outpatient follow-up from a VA psychiatric emergency room." *Community Mental Health Journal*. 35(5):451-8, 1999.
64. Drake RE, McHugo GJ, et al. "Assertive community treatment for patients with co-occurring severe mental illness and substance use disorder: A clinical trial." *American Journal of Orthopsychiatry*. 68(2):201-215, 1998.
65. Drake RE, Osher FC, Wallach MA. "Homelessness and dual diagnosis." *American Psychologist*. 46(11): 1149-1158, 1991.

66. Drake RE, Yovetich NA, et al. "Integrated treatment for dually diagnosed homeless adults." *The Journal of Nervous and Mental Disease*. 185(5):298-305, 1997.
67. Embry LE, Vander Stoep AV, et al. "Risk factors for homelessness in adolescents released from psychiatric residential treatment." *Journal of the American Academy of Child and Adolescent Psychiatry*. 39(10):1293-9, 2000.
68. Erickson JR, Chong J, et al. "Service linkages: Understanding what fosters and what deters from service coordination for homeless adult drug users." *Contemporary Drug Problems*. 22(2):343-362, 1995.
69. Erickson JR, Stevens S, et al. "Willingness for treatment as a predictor of retention and outcomes." *Journal of Addictive Diseases*. 14:135-150, 1995.
70. Farrow JA. Service delivery strategies for treating high-risk youth: Delinquents, homeless, runaways, and sexual minorities." In *NIDA Research Monograph #156: Adolescent Drug Abuse: Clinical Assessment and Therapeutic Interventions*, 1995.
71. Felix AD, Wine PR. "From the couch to the street: Applications of psychoanalysis to work with individuals who are homeless and mentally ill." *Journal of Applied Psychoanalytic Studies*. 3(1):17-32, 2001.
72. Frances RJ. "Update on alcohol and drug disorder treatment." *The Journal of Clinical Psychiatry*. 49:13-7, 1988.
73. Franklin JE, Lindenthal JJ, et al. "Barriers to the implementation of a program for inner-city, homeless substance abusers on general assistance: Newark." *Alcoholism Treatment Quarterly*. 10(3-4):65-76, 1993.
74. French MT, Sacks S, et al. "Modified therapeutic community for mentally ill chemical abusers: outcomes and costs." *Evaluation and the Health Professions*. 22(1):60-85, 1999.
75. Frisman LK, Rosenheck R. "The relationship of public support payments to substance abuse among homeless veterans with mental illness." *Psychiatric Services*. 48(6):792-5, 1997.
76. Fuller RK, Hiller-Sturmhofel S. "Alcoholism treatment in the United States: An overview." *Alcohol Research and Health*. 23(2):69-77, 1999.
77. Galanter M, Dermatis H, et al. "Homelessness and mental illness in a professional- and peer-led cocaine treatment clinic." *Psychiatric Services*. 49(4):533-5, 1998.
78. Galanter M, Egelko S, et al. "Crack/cocaine abusers in the general hospital: assessment and initiation of care." *The American Journal of Psychiatry*. 149(6):810-5, 1992.
79. Galanter M, Egelko S, et al. "Can cocaine addicts with severe mental illness be treated along with singly diagnosed addicts?" *The American Journal of Drug and Alcohol Abuse*. 22(4):497-507, 1996.
80. Galanter M, Egelko S, et al. "A treatment system for combined psychiatric and addictive illness." *Addiction*. 89(10):1227-35, 1994.

81. Garrett J, et al. "ARISE: A method for engaging reluctant alcohol and drug-dependent individuals in treatment." *Journal of Substance Abuse Treatment*. 14:235-48, 1997.
82. Geissler LJ, Bormann CA, et al. "Women, homelessness, and substance abuse: Moving beyond the stereotypes." *Psychology of Women Quarterly*. 19(1):65-83, 1995.
83. Gelberg L, Linn LS, Leake B. "Mental health, alcohol and drug use, and criminal history among homeless adults." *American Journal of Psychiatry*. 145(2):191-196, 1988.
84. Gleghorn AA, Marx R, et al. "Association between drug use patterns and HIV risks among homeless, runaway, and street youth in northern California." *Drug and Alcohol Dependence*. 51(3):219-27, 1998.
85. Goldberg EV, Simpson T. "Challenging stereotypes in treatment of the homeless alcoholic and addict: creating freedom through structure in large groups." *Social Work with Groups*. 18:79-93, 1995.
86. Goldfinger SM, Schutt RK, et al. "Housing placement and subsequent days homeless among formerly homeless adults with mental illness." *Psychiatric Services*. 50(5):674-9, 1999.
87. Goldfinger SM, Schutt RK, et al. "Assessing homeless mentally ill persons for permanent housing: screening for safety." *Community Mental Health Journal*. 32(3):275-88, 1996.
88. Goodman LA, Rosenberg SD, et al. "Physical and sexual assault history in women with serious mental illness: prevalence, correlates, treatment, and future research directions." *Schizophrenia Bulletin*. 23(4): 685-96, 1997.
89. Gordis E. "Linking research with practice: Common bonds, common progress." *Alcohol, Health and Research World*. 15(3):173-4, 1991.
90. Greene JM, Ennett ST, et al. "Substance use among runaway and homeless youth in three national samples." *American Journal of Public Health*. 87(2): 229-35, 1997.
91. Grella CE. "Women in residential drug treatment: differences by program type and pregnancy." *Journal of Health Care for the Poor and Underserved*. 10(2):216-29, 1999.
92. Grella CE. "A residential recovery program for homeless alcoholics: differences in program recruitment and retention." *Journal of Mental Health Administration*. 20(2):90-9, 1993.
93. Grunebaum M, Aquila R, et al. "Predictors of management problems in supported housing: a pilot study." *Community Mental Health Journal*. 35(2):127-33, 1999.
94. Guo S, Biegel DE, et al. "Assessing the impact of community-based mobile crisis services on preventing hospitalization." *Psychiatric Services*. 52(2):223-8, 2001.
95. Hagan H, Des Jarlais DC, et al. "The Tacoma syringe exchange." *Journal of Addictive Diseases*. 10:81-88, 1991.
96. Hahn JA, Vranizan KM, et al. "Who uses needle exchange? A study of injection drug users in treatment in San Francisco, 1989-1990." *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology*. 15(2):157-64, 1997.

97. Haigh R, Hibbert G. "Where and when to detoxify single homeless drinkers." *British Medical Journal*. 301(6756):848-9, 1990.
98. Halter AP. "State welfare reform for employable general assistance recipients: The facts behind the assumptions." *Social Work*. 41(1):106-110, 1996.
99. Harris M, Bachrach LL. "Perspectives on homeless mentally ill women." *Hospital and Community Psychiatry*. 41(3):253-254, 1990.
100. Harris M. "Treating sexual abuse trauma with dually diagnosed women." *Community Mental Health Journal*. 32(4):371-85, 1996.
101. Herman M, Galanter M, et al. "Combined substance abuse and psychiatric disorders in homeless and domiciled patients." *The American Journal of Drug and Alcohol Abuse*. 17(4):415-22, 1991.
102. Higgins ST, Silverman K (eds.) Motivating behavior change among illicit-drug abusers: Research on contingency management interventions. American Psychological Association, Washington D.C., 1999.
103. Hopper K. "Deviance and dwelling space: Notes on the resettlement of homeless persons with alcohol and drug problems." *Contemporary Drug Problems*. 16:391-414, 1989.
104. Horgan C. et.al. "Substance Abuse: The Nation's Number One Health Problem - Key Indicators for Policy, Update." For the Robert Wood Johnson Foundation, February 2001.
105. Humphreys K, Rosenheck R. "Treatment involvement and outcomes for four subtypes of homeless veterans." *American Journal of Orthopsychiatry*. 68(2):285-294, 1998.
106. Hurlburt MS, Hough RL, et al. "Effects of substance abuse on housing stability of homeless mentally ill persons in supported housing." *Psychiatric Services*. 47(7):731-6, 1996.
107. Inciardi JA, Saum CA. "New approaches in the treatment of substance abuse." *Journal of Drug Issues*. 27:195-201, 1997.
108. Jainchill N, Hawke J, et al. "Gender, psychopathology, and patterns of homelessness among clients in shelter-based TCs." *The American Journal of Drug and Alcohol Abuse*. 26(4):553-67, 2000.
109. Johnson TP. "Alcohol and drug use among displaced persons: An overview." *Substance Use and Misuse*. 31(13):1853-1889, 1996.
110. Johnson TP, Barrett ME. "Substance use and treatment needs among homeless persons in Cook County, Illinois." *International Journal of Addictions*. 30(5):557-85, 1995.
111. Johnston P, Swift P. "Effects of randomization on a homeless services initiative: A comment." *New Directions for Program Evaluation*. 63:67-71, 1994.
112. Johnston P, Rowe M, et al. "Dilemmas of human service reform in New Haven: integrating three levels of organizational analysis part of a symposium on homelessness and substance abuse." *Contemporary Drug Problems*. 22:363-91, 1995.

113. Jones BE, Katz ND. "Evaluating recent research on the homeless mentally ill." *Psychiatric Quarterly*. 63(1):41-50, 1992.
114. Joseph, J. "Substance abuse and homelessness within the inner cities."
115. Kaltenbach K, Finnegan L. "Prevention and treatment issues for pregnant cocaine-dependent women and their infants." *Annals of the New York Academy of Sciences*. 846:329-34, 1998.
116. KasproW WJ, Rosenheck R, Frisman L. "Residential treatment for dually diagnosed homeless veterans: a comparison of program types." *The American Journal on Addictions*. 8(1):34-43, 1999.
117. Kennedy GJ, Efremova I, et al. "The emerging problems of alcohol and substance abuse in late life." *Journal of Social Distress and the Homeless*. 8(4):227-239, 1999.
118. Kennedy MR. "Homeless and runaway youth mental health issues: No access to the system." *Journal of Adolescent Health*. 12(7):576-579, 1991.
119. Kingree JB, Glasford MT, Jones-Allen M. "A comparison of HIV-positive and HIV-negative crack users enrolled in a residential addiction treatment program." *The American Journal of Drug and Alcohol Abuse*. 23(4):569-80, 1997.
120. Kingree JB. "Understanding gender differences in psychosocial functioning and treatment retention." *The American Journal of Drug and Alcohol Abuse*. 21(2):267-81, 1995.
121. Kirby MW, Braucht GN. "Intensive case management for homeless people with alcohol and other drug problems: Denver." *Alcoholism Treatment Quarterly*. 10(3-4):187-200, 1993.
122. Kline J, Harris M, et al. "Contrasting integrated and linkage models of treatment for homeless, dually diagnosed adults." *New Directions for Mental Health Services*. 50:95-106, 1991.
123. Koegel P, Sullivan G, et al. "Utilization of mental health and substance abuse services among homeless adults in Los Angeles." *Medical Care*. 37(3):306-17, 1999.
124. Koegel P, Burnam MA. "Alcoholism among homeless adults in the inner city of Los Angeles." *Archives of General Psychiatry*. 45:1011-18, 1988.
125. Koshes RJ, Voell JW. "Services for the homeless." *Hospital and Community Psychiatry*. 41(3):331-332, 1990.
126. Kreider B, Nicholson S. "Health insurance and the homeless." *Health Economics*. 6(1):31-41, 1997.
127. Kuhn R, Culhane DP. "Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: Results from the analysis of administrative data." *American Journal of Community Psychology*. 26(2):207-32, 1998.
128. Lam JA, Jekel JF, et al. "Assessing the value of a short-term residential drug treatment program for homeless men." *Journal of Addictive Diseases*. 14(4):21-39, 1995.
129. Lam JA, Rosenheck R. "Social support and service use among homeless persons with serious mental illness." *The International Journal of Social Psychiatry*. 45(1):13-28, 1999.

130. Lapham SC, Hall M, Skipper BJ. "Homelessness and substance use among alcohol abusers following participation in Project H&ART." *Journal of Addictive Diseases*. 14:41-55, 1995.
131. Lapham SC et.al. "Demonstration of a mixed social/medical model detoxification program for homeless alcohol abusers." *Contemporary Drug Problems*. 23:331-347, 1996.
132. Leaf PJ, Thompson KS, et al. "Partnerships in recovery: Shelter-based services for homeless cocaine abusers: New Haven." *Alcoholism Treatment Quarterly*. 10:77-90, 1993.
133. Leda C, Rosenheck R. "Race in the treatment of homeless mentally ill veterans." *The Journal of Nervous and Mental Disease*. 183(8):529-37, 1995.
134. Lewis JR, Boyle DP, et al. "Reducing AIDS and substance abuse risk factors among homeless, HIV-infected, drug-using persons." *Research on Social Work Practice*. 10(1):15-33, 2000.
135. Liberty HJ, Johnson BD, et al. "Dynamic recovery: Comparative study of therapeutic communities in homeless shelters for men." *Journal of Substance Abuse Treatment*. 15(5):401-23, 1998.
136. Lipton FR, et.al. "Tenure in supportive housing for homeless persons with severe mental illness." *Psychiatric Services*. 51(4):479-86, 2000.
137. Lubran B. "Alcohol and drug abuse among the homeless population: A national response." *Alcoholism Treatment Quarterly*. 7(1):11-23, 1990.
138. Lyon-Callo V. "Medicalizing homelessness: The production of self-blame and self-governing within homeless shelters." *Medical Anthropology Quarterly*. 14(3):328-345, 2000.
139. McCarty D, Argeriou M, et al. "Alcoholism, drug abuse, and the homeless." *American Psychologist*. 46(11):1139-1148, 1991.
140. McGeary KA, French MT, et al. "Service use and cost by mentally ill chemical abusers: Differences by retention in a therapeutic community." *Journal of Substance Abuse*. 11(3): 265-79, 2000.
141. McGlynn EA, Boynton J, et al. "Treatment for the dually diagnosed homeless: Program models and implementation experience: Los Angeles." *Alcoholism Treatment Quarterly*. 10(3-4):171-186, 1993.
142. McLaughlin P, Pepper B. "Modifying the therapeutic community for the mentally ill substance abuser." *New Directions for Mental Health Services*. 50:85-93, 1991.
143. McMurray-Avila M. Organizing Health Services for Homeless People: A Practical Guide. National Health Care for the Homeless Council. 2001.
144. McNamara C, Schumacher JE, et al. "Prevalence of nonpsychotic mental disorders does not affect treatment outcome in a homeless cocaine-dependent sample." *The American Journal of Drug and Alcohol Abuse*. 27(1):91-106, 2001.
145. Meisler N, Blankertz L, et al. "Impact of assertive community treatment on homeless persons with co-occurring severe psychiatric and substance use disorders." *Community Mental Health Journal*. 33(2):113-22, 1997.

146. Messina M. "Zenith House: A therapeutic home for the homeless." In DeLeon G, Community as method: Therapeutic communities for special populations and special settings. Westport, CT: Praeger Publishers/Greenwood Publishing Group: 39-52, 1997.
147. Meyer IH, Schwartz S. "Social issues as public health: promise and peril." *American Journal of Public Health*. 90(8):1189-1191, 2000.
148. Mierlak D, Galanter M, et al. "Modified therapeutic community treatment for homeless dually diagnosed men. Who completes treatment?" *Journal of Substance Abuse Treatment*. 15(2):117-21, 1998.
149. Miescher A, Galanter M. "Shelter-based treatment of the homeless alcoholic." *Journal of Substance Abuse Treatment*. 13(2):135-40, 1996.
150. Milby JB, Schumacher JE, et al. "Sufficient conditions for effective treatment of substance abusing homeless persons." *Drug and Alcohol Dependence*. 43(1-2):39-47, 1996.
151. Milby JB, Schumacher JE, et al. "Initiating abstinence in cocaine-abusing dually diagnosed homeless persons." *Drug and Alcohol Dependence*. 60:55-67, 2000.
152. Moggi F, Hirsbrunner HP, Brodbeck J, Bachmann KM. One-year outcome of an integrative inpatient treatment for dual diagnosis patients. *Addictive Behavior*. 24(4):589-92, Jul-Aug 1999.
153. Moneyham L, Connor A. "The road in and out of homelessness: perceptions of recovering substance abusers." *The Journal of the Association of Nurses in AIDS Care*. 6(5):11-9, 1995.
154. Morse GA, Calsyn RJ, et al. "An experimental comparison of three types of case management for homeless mentally ill persons." *Psychiatric Services*. 48(4):497-503, 1997.
155. Morse GA, Calsyn RJ, et al. "Outreach to homeless mentally ill people: Conceptual and clinical considerations." *Community Mental Health Journal*. 32(3):261-274, 1996.
156. National Institute on Alcohol Abuse and Alcoholism (NIAAA). "10<sup>th</sup> Special report to the U.S. Congress on alcohol and health: Highlights from current research." 444-453, June 2000.
157. National Institute on Alcohol Abuse and Alcoholism (NIAAA). "Homelessness, alcohol, and other drugs: Proceedings of a conference held in San Diego, California," 1989.
158. National Institute on Alcohol Abuse and Alcoholism (NIAAA). "Research methodologies concerning homeless persons with serious mental illness and/or substance abuse disorders: Proceedings of a two-day conference." sponsored by the Alcohol, Drug Abuse and Mental Health Administration, July 13-14, 1987.
159. National Institute for Drug Abuse (NIDA). Principles of drug addiction treatment: A research-based guide. 2000.
160. National Institute of Health (NIH). "Intensive outpatient treatment for alcohol and other drug abuse." Treatment Improvement Protocol Series 8, 2001.
161. North CS, Thompson SJ, et al. "Violence in the lives of homeless mothers in a substance abuse treatment program: A descriptive study." *Journal of Interpersonal Violence*. 11(2):234-249, 1996.



162. Nuttbrock L, Rahav M, et al. "Mentally ill chemical abusers in residential treatment programs: Effects of psychopathology on levels of functioning." *Journal of Substance Abuse Treatment*. 14(3):269-274, 1997.
163. Nuttbrock L, Rahav M, et al. "Outcomes of homeless mentally ill chemical abusers in community residences and a therapeutic community." *Psychiatric Services*. 49(1):68-76, 1998.
164. Nuttbrock L, Ng-Mak DS, et al. "Pre- and post-admission attrition of homeless, mentally ill chemical abusers referred to residential treatment programs." *Addiction*. 92(10):1305-15, 1997b.
165. Nyamathi AM, Leake B, Gelberg L. "Sheltered versus nonsheltered homeless women differences in health, behavior, victimization, and utilization of care." *Journal of General Internal Medicine*. 15(8):565-72, 2000.
166. Okin RL, Boccellari A, et al. "The effects of clinical case management on hospital service use among ED frequent users." *The American Journal of Emergency Medicine*. 18(5):603-8, 2000.
167. Opler LA, White L, et al. "Gender differences in the relationship of homelessness to symptom severity, substance abuse, and neuroleptic noncompliance in schizophrenia." *Journal of Nervous and Mental Disease*. 189(7):449-456, 2001.
168. Orwin RG. "Assessing program fidelity in substance abuse health services research." *Addiction*. 95:S309-S327, 2000.
169. Orwin RG, Garrison-Mogren R, et al. "Retention of homeless clients in substance abuse treatment: Findings from the NIAAA cooperative agreement program." *Journal of Substance Abuse Treatment*. 17(1-2):45-66, 1999.
170. Orwin RG, Goldman HH, et al. "Alcohol and drug abuse treatment of homeless persons: Results from the NIAAA community demonstration program." *Journal of Health Care for the Poor and Underserved*. 5(4):326-52, 1994.
171. Padgett D et.al. "Factors affecting the use of medical, mental health, alcohol, and drug treatment services by homeless adults." *Medical Care*. 28(9):805-821, 1990.
172. Peteet JR. "A closer look at the role of a spiritual approach in addictions treatment." *Journal of Substance Abuse Treatment*. 10(3):263-7, 1993.
173. Quimby E. "Homeless clients' perspectives on recovery in the Washington DC dual diagnosis project." *Contemporary Drug Problems*. 22(2):265-289, 1995.
174. Raczynski JM, Schumacher JE, et al. "Comparing two substance abuse treatments for the homeless: The Birmingham Project." *Alcoholism Treatment Quarterly*. 10(3-4):217-233, 1993.
175. Rahav M, Linnk BG. "When social problems converge: Homeless, mentally ill, chemical misusing men in New York City." *International Journal of the Addictions*. 30(8):1019-1042, 1995b.
176. Rahav M, Nuttbrock L, et al. "Recruitment into treatment of homeless, mentally ill, chemical abusing men." *Journal of Drug Issues*. 27(2):315-328, 1997.

177. Rahav M, Rivera JJ, et al. "Characteristics and treatment of homeless, mentally ill, chemical-abusing men." *Journal of Psychoactive Drugs*. 27(1):93-103, 1995.
178. Rawlings B, Yates R, eds. Therapeutic Communities for the Treatment of Drug Users. Jessica Kingsley Publishers. 2001.
179. Ridlen S, et.al. "Outreach and engagement for homeless women at risk of alcoholism." *Alcoholism Treatment Quarterly*. 7(1):99-109, 1990.
180. Ries RK, Comtois KA. "Managing disability benefits as part of treatment for persons with severe mental illness and comorbid drug/alcohol disorders: A comparative study of payee and non-payee participants." *American Journal on Addictions*. 6(4):330-338, 1997.
181. Ries RK, Russo J, et al. "Shorter hospital stays and more rapid improvement among patients with schizophrenia and substance disorders." *Psychiatric Services*. 51(2):210-5, 2000.
182. Robertson MJ, Zlotnick C, et al. "Drug use disorders and treatment contact among homeless adults in Alameda County, California." *American Journal of Public Health*. 87(2):221-8, 1997.
183. Rosenberg SD, Drake RE, et al. "New directions for treatment research on sequelae of sexual abuse in persons with severe mental illness." *Community Mental Health Journal*. 32(4):387-400, 1996.
184. Rosenheck R, Frisman L, et al. "Effectiveness and cost of specific treatment elements in a program for homeless mentally ill veterans." *Psychiatric Services*. 46(11):1131-1139, 1995.
185. Rosenheck R, Gallup P, et al. "Health care utilization and costs after entry into an outreach program for homeless mentally ill veterans." *Hospital and Community Psychiatry*. 44(12):1166-71, 1993.
186. Rosenheck R, Lam J, et al. "Impact of representative payees on substance use by homeless persons with serious mental illness." *Psychiatric Services*. 48(6):800-6, 1997.
187. Rosenheck R, Lam J. "Homeless mentally ill clients' and providers' perceptions of service needs and clients' use of services." *Psychiatric Services*. 48(3):381-6, 1997b.
188. Rosenheck R, Seibyl C. "Homelessness: health service use and related costs." *Medical Care*. 36(8):1256-64, 1998.
189. Royer CM, Dickson-Fuhrmann E, et al. "Portraits of change: Case studies from an elder-specific addiction program." *Journal of Geriatric Psychiatry and Neurology*. 13(3):130-133, 2000.
190. Royse D, Leukefeld C, et al. "Homelessness and gender in out-of-treatment drug users." *The American Journal of Drug and Alcohol Abuse*. 26(2):283-96, 2000.
191. Sacks S, De Leon G, et al. "Modified therapeutic community for homeless mentally ill chemical abusers: Sociodemographic and psychological profiles." *Journal of Substance Abuse Treatment*. 15(6):545-54, 1998.
192. Sacks JY, Sacks S, Harle M, De Leon G. "Homelessness prevention thereapeutic community (TC) for addicted mothers." *The Haworth Press, Inc.* pp. 33-51, 1999.

193. Sadd S, Young DW. "Nonmedical treatment of indigent alcoholics: A review of recent research findings." *Alcohol Health and Research World*. Spring: 48-49, 1987.
194. Salit SA, Kuhn EM, et al. "Hospitalization costs associated with homelessness in New York City." *The New England Journal of Medicine*. 338(24):1734-40, 1998.
195. Schonfeld L, Dupree LW, et al. "Cognitive-behavioral treatment of older veterans with substance abuse problems." *Journal of Geriatric Psychiatry and Neurology*. 13(3):124-9, 2000.
196. Schumacher JE et.al. "Demoralization and threats to validity in Birmingham's homeless project." *New Directions for Program Evaluation*. 63:41-44, 1994.
197. Schumacher JE, Milby JB, et al. "Treatment outcome as a function of treatment attendance with homeless persons abusing cocaine." *Journal of Addictive Diseases*. 14(4):73-85, 1995.
198. Schumacher JE, Milby JB, et al. "Linking practice and science in the substance abuse treatment of homeless persons." *Journal of Applied Behavioral Science*. 36(3):297-313, 2000.
199. Schumacher JE, Milby JB, et al. "Validity of self-reported crack cocaine use among homeless persons in treatment." *Journal of Substance Abuse Treatment*. 12(5):335-9, 1995.
200. Schumacher JE, et.al. "Effective treatment of homeless substance abusers: The role of contingency management." In Higgins 1999.
201. Schumacher JE, Usdan S, et al. "Abstinent-contingent housing and treatment retention among crack-cocaine-dependent homeless persons." *Journal of Substance Abuse Treatment*. 19(1):81-88, 2000.
202. Scott-Lennox J, Rose R, et al. "The impact of women's family status on completion of substance abuse treatment." *The Journal of Behavioral Health Services and Research*. 27(4):366-79, 2000.
203. Shah NG, Celentano DD, et al. "Correlates of enrollment in methadone maintenance treatment programs differ by HIV-serostatus." *AIDS*. 14(13):2035-43, 2000.
204. Shaner A, Roberts LJ, et al. "Monetary reinforcement of abstinence from cocaine among mentally ill patients with cocaine dependence." *Psychiatric Services*. 48(6):807-10, 1997.
205. Shavelson L. Hooked: Five Addicts Challenge our Misguided Drug Rehab System. New York: The New Press. 2001.
206. Shifrin F, Solis M. "Chemical dependency in gay and lesbian youth." *Journal of Chemical Dependency Treatment*. 5(1):67-76, 1992.
207. Siqueland L, Crits-Christoph P. "Current developments in psychosocial treatments of alcohol and substance abuse." *Current Psychiatry Reports*. 1(2):179-84, 1999.
208. Slesnick N, Meyers RJ, et al. "Bleak and hopeless no more: Engagement of reluctant substance-abusing runaway youth and their families." *Journal of Substance Abuse Treatment*. 19(3):215-22, 2000.
209. Smart RG, Ogborne AC. "Street youth in substance abuse treatment: Characteristics and treatment compliance." *Adolescence*. 29(115):733-45, 1994.

210. Smith EM, North CS, et al. "Eighteen-month follow-up data on a treatment program for homeless substance abusing mothers." *Journal of Addictive Diseases*. 14(4):57-72, 1995.
211. Smith EM, North CS, et al. "A substance abuse recovery program for homeless mothers with children: St. Louis." *Alcoholism Treatment Quarterly*. 10(3-4):91-100, 1993.
212. Smith JE, Meyers RJ, et al. "The community reinforcement approach to the treatment of substance use disorders." *American Journal on Addictions*. 10(Suppl):51-59, 2001.
213. Sosin MR. "Service intensity and organizational attributes: A preliminary inquiry." *Administration & Policy in Mental Health*. 28(5):371-392, 2001.
214. Sosin MR, Bruni M. "Personal and situational perspectives on rejection of a homelessness and substance abuse program an exploratory study." *Social Work Research*. 24(1):16-27, 2000.
215. Sosin MR, Bruni M, et al. "Paths and impacts in the progressive independence model: a homelessness and substance abuse intervention in Chicago." *Journal of Addictive Diseases*. 14(4):1-20, 1995.
216. Sosin MR, Yamaguchi J. "Case management routines and discretion in a program addressing homelessness and substance abuse." *Contemporary Drug Problems*. 22(2):317-342, 1995.
217. Stahler GJ. "Social interventions for homeless substance abusers: Evaluating treatment outcomes." *Journal of Addictive Diseases*. 14(4):xv-xxvi, 1995.
218. Stahler GJ, Cohen E. "Homelessness and substance abuse in the 1990s." *Contemporary Drug Problems*. 22(2):169-191, 1995.
219. Stahler GJ, Cohen E, et al. "A qualitative study of treatment success among homeless crack-addicted men: definitions and attributions." *Contemporary Drug Problems*. 22(2):237-264, 1995.
220. Stahler GJ, Shipley Jr. TF, et al. "Evaluating alternative treatments for homeless substance-abusing men: Outcomes and predictors of success." *Journal of Addictive Diseases*. 14(4):151-167, 1995.
221. Stark L. "A century of alcohol and homelessness: Demographics and stereotypes." *Alcohol Health and Research World*. Spring: 8-13, 1987.
222. Stecher BM, Andrews CA, et al. "Implementation of residential and nonresidential treatment for the dually diagnosed homeless." *Evaluation Review*. 18(6):689-717, 1994.
223. Steele, R and O'Keefe MA. "A program description of health care interventions for homeless teenagers." *Clinical Pediatrics*. 40:259-263, 2001.
224. Stevens SJ, Chong J, et al. "Homelessness and substance abuse: The efficacy of modified residential and nonresidential therapeutic community models." In DeLeon G, Community as method: Therapeutic communities for special populations and special settings. Westport, CT: Praeger Publishers/Greenwood Publishing Group: 247-260, 1997
225. Stevens SJ, Erickson JR, et al. "A therapeutic community model for treatment of homeless alcohol and drug users in Tucson, Arizona." *Alcoholism Treatment Quarterly*. 10(3-4):21-33, 1993.

226. Sumerall SW, Rate LT, et al. "Process and outcome of rehabilitation of homeless veterans and their relationship with personality style." *Psychiatric Rehabilitation Skills*. 4(1):28-34, 2000.
227. Taylor S, Jarvik LF. "Cognitive-behavioral treatment of older veterans with substance abuse problems." *Journal of Geriatric Psychiatry and Neurology*. 13(3):124-9, 2000.
228. Tommasello AC et.al. "Effectiveness of outreach to homeless substance abusers." *Evaluation and Program Planning*. 22:296-303, 1999.
229. Usdan SL, Schumacher JE, et al. "Crack cocaine, alcohol, and other drug use patterns among homeless persons with other mental disorders." *The American Journal of Drug and Alcohol Abuse*. 27(1):107-20, 2001.
230. Velasquez MM, Crouch C, et al. "Motivation for change and psychological distress in homeless substance abusers." *Journal of Substance Abuse Treatment*. 19(4):395-401, 2000.
231. Wagner JD, Menke EM. "Substance use by homeless pregnant mothers." *Journal of Health Care for the Poor and Underserved*. 3(1):161-172, 1992.
232. Wallace B (ed.) The chemically dependent: Phases of treatment and recovery. Philadelphia, PA: Brunner/Mazel. 1992.
233. Watkins KE, Shaner A, et al. "The role of gender in engaging the dually diagnosed in treatment." *Community Mental Health Journal*. 35(2):115-26, 1999.
234. Weinberg D. "Self-empowerment in two therapeutic communities." In Gubrium JF, Holstein JA. Institutional selves: Troubled identities in a postmodern world. New York, NY: Oxford University Press: 84-104, 2001.
235. Weinberg D, Koegel P. "Impediments to recovery in treatment programs for dually diagnosed homeless adults: An ethnographic analysis." *Contemporary Drug Problems*. 22(2):193-236, 1995.
236. Wenzel SL, Audrey Burnam M, et al. "Access to inpatient or residential substance abuse treatment among homeless adults with alcohol or other drug use disorders." *Medical Care*. 39(11):1158-69, 2001.
237. Wenzel SL, Koegel P, et al. "Antecedents of physical and sexual victimization among homeless women: A comparison to homeless men." *American Journal of Community Psychology*. 28(3):367-390, 2000.
238. Wenzel SL, Koegel P, et al. "Access to substance abuse treatment for homeless women of reproductive age." *Journal of Psychoactive Drugs*. 28(1):17-30, 1996.
239. Westreich L, Galanter M, et al. "A modified therapeutic community for the dually diagnosed: Greenhouse Program at Bellevue Hospital." *Journal of Substance Abuse Treatment*. 13(6):533-536, 1996.
240. Westreich L, Guedj P, et al. "Differences between men and women in dual-diagnosis treatment." *The American Journal on Addictions*. 6(4):311-7, 1997a.

241. Westreich L, Heitner C, Cooper M, Galanter M, Guedj P, et al. "Perceived social support and treatment retention on an inpatient addiction treatment unit." *The American Journal on Addictions*. 6(2):144-9, 1997b.
242. Willenbring, M. et.al. "Application of case management in alcohol and drug dependence : matching techniques and populations." submitted to Homeless Demonstration and Evaluation Branch, Division of Clinical and Prevention Research, National Institute on Alcohol Abuse and Alcoholism, 1991.
243. Witbeck G, Hornfeld S, et al. "Emergency room outreach to chronically addicted individuals. A pilot study." *Journal of Substance Abuse Treatment*. 19(1):39-43, 2000.
244. Wittman FD. "Housing models for alcohol programs serving homeless people." *Contemporary Drug Problems*. 16(3):483-504, 1989.
245. Wittman FD. "Alcohol, architecture, and homelessness." *Alcohol Health and Research World*. Spring: 74-79, 1987.
246. Wright JD, Knight JW, et.al. "Ailments and alcohol: Health status among the drinking homeless." *Alcohol Health and Research World*. Spring:22-26, 1987.
247. Wright JD, Allen TL, et al. "Tracking non-traditional populations in longitudinal studies." *Evaluation and Program Planning*. 18(3):267-277, 1995.
248. Wright JD, Devine J. "Factors that interact with treatment to predict outcomes in substance abuse programs for the homeless." *Journal of Addictive Diseases*. 14(4):169-81, 1995.
249. Yeich S, Mowbray CT, et al. "The case for a "supported housing" approach: A study of consumer housing and support preferences." *Psychosocial Rehabilitation Journal*. 18(2):75-86, 1994.
250. Zanis DA, McLellan AT, et al. "Reliability and validity of the Addiction Severity Index with a homeless sample." *Journal of Substance Abuse Treatment*. 11(6):541-8, 1994.
251. Zweben JE. "Severely and persistently mentally ill substance abusers: clinical and policy issues." *Journal of Psychoactive Drugs*. 32(4):383-9, 2000.