

**SUBSTANCE ABUSE: THE NEED FOR
SECOND-ORDER CHANGE***

LEONARD A. JASON

BRADLEY D. OLSON

JOSEPH R. FERRARI

MARGARET I. DAVIS

DePaul University

ABSTRACT

Under modern managed care, private and public sector inpatient substance abuse have reduced their services dramatically. Compounding this problem is the finding that various traditional substance abuse treatment programs, including inpatient and outpatient treatment programs, have high rates of recidivism. There is a need to develop and evaluate lower cost, non-medical, community-based care options for individuals recovering from substance-related disorders. Therapeutic communities, self-help groups, communal recovery homes, harm reduction interventions, and preventive community-based interventions have features that might impact "processes of change," particularly those proposed in the transtheoretical model of change (Prochaska, DiClemente, & Norcross, 1992). These more comprehensive community-based interventions might influence a wide range of processes to produce second-order change (Watzlawick, Weakland, & Fisch, 1974).

Substance abuse and addiction are among the most pressing health and social issues facing the international community (Leshner, 1998). In the United States,

*The authors appreciate the financial support from the National Institute on Alcohol Abuse and Alcoholism (AA12218) and the National Institute on Drug Abuse (DA13231).

for instance, 43.7% of persons 12 years and older reported being current drinkers of alcohol, 20.2% had participated in binge drinking at least once in the 30 days prior to the survey, and 5.6% reported being heavy users (Substance Abuse and Mental Health Services Administration [SAMHSA], 1998). Another national study of alcohol dependence found a lifetime prevalence of 14.1% (Kessler et al., 1994). Although prevalence estimates in this area tend to vary, by any estimate it is evident that alcoholism is a significant problem with approximately 4.5 to 10.0% of the U.S. population being actively symptomatic in the past year (SAMHSA, 1998). Rates of lifetime dependence on illicit drugs are 5.9% for women and 9.2% for men (Kandel, Warner, & Kessler, 1998) and data from the National Household Survey on Drug Abuse indicates that 10.6% of the adult U.S. population have used illicit drugs in the past year (SAMHSA, 1998).

These disorders pose serious health threats and often result in tragic consequences for the individual users, their families, friends, and society. At the individual level, chronic alcohol consumption and illicit drug use often lead to negative familial, social, interpersonal, and economic consequences (Fields, 1998). Chronic alcohol consumption is also related to the incidence of stomach ulcers, hypertension, heart failure, cancer, brain damage, and cirrhosis of the liver, which is now the ninth leading cause of death in the United States (Debakey, Stinson, Grant, & Dufour, 1996). Research comparing alcohol dependent individuals to matched controls found that between two and eight years after receiving residential treatment, alcohol dependent individuals were more than nine times more likely to die than controls (Finney & Moos, 1991).

The cost of alcoholism and illicit drug abuse in the United States is not limited to health effects. The total economic cost of alcohol and drug abuse for 1992 was \$245.7 billion, and this represents a 50% increase over the cost estimate for 1985 (National Institute on Drug Abuse [NIDA], 1998). It is estimated that the average employee abusing drugs works at 67% of his or her potential (Lyons & Kleiner, 1992). Further, alcohol use is related to motor vehicle accidents and increases the likelihood of occupational injuries. Alcohol use also contributes to the incidence of physical assault and sexual offenses, and is reported to be involved in at least 30% of all the corroborated assaults in which tissue damage occurs, as well as in 30% of the deaths (O'Farrell & Murphy, 1995). Impaired judgment resulting from alcohol and drug use also increases the likelihood of unprotected sex, with possible consequences of pregnancy and sexually-transmitted diseases (O'Farrell & Murphy, 1995). The high prevalence and enormous costs of alcoholism and illicit drug use to both the individual and society, whether measured in terms of health or economics, illustrate the stakes that are involved in finding successful solutions to alcoholism and illicit drug abuse.

In an attempt to respond to this escalating need, a variety of intervention services have evolved over the years. In the past several decades, significant progress has been made in increasing our understanding of issues related to substance abuse and addiction. However, despite progress and widespread

concern, we need to learn more about the precise causes and effective ways to treat and prevent drug abuse and addiction. Regrettably, under the present managed-health care system, private and public sector inpatient substance abuse facilities have reduced their services dramatically. For those able to access treatment, there are several major types of interventions including inpatient treatment, outpatient treatment, therapeutic communities, and self-help groups (Jason, Davis, Ferrari, & Bishop, 2001). In this article we will discuss possible reasons why high recidivism rates have occurred with more traditional approaches. We will also discuss several innovations in the substance abuse field including the recovery home, other community interventions, and prevention attempts that have the potential to produce more enduring change.

TRADITIONAL TREATMENT FOR SUBSTANCE ABUSE

For many individuals recovering from substance abuse problems, entry into the existing continuum of services begins in a detoxification program. In the optimal case, an individual completes the detoxification process, moves through a time-limited therapeutic program, and then maintains his or her recovery without further need of inpatient services. Detoxification program re-admission represents a potential indicator that services received have not facilitated sustained recovery. National data indicate that re-admissions represent 47% of persons in detoxification programs in the United States (Richman, 1977). It has been suggested that for a substantial portion of addicted persons, detoxification does not lead to sustained recovery. Instead, these individuals cycle repetitively through the service delivery system (Richman & Neumann, 1984) with 15% of those who relapse using substances before they leave treatment (Tims, Leukefeld, & Platt, 2001). Fifty-two to 75% of all alcohol dependent individuals drop out during treatment (Montgomery, Miller, & Tonigan, 1993), and recidivism rates within one year following treatment are around 75% (Miller, Walters, & Bennett, 2000). Although *reductions* in alcohol use after 15 months were found after treatment in Project MATCH, many concluded from the study that the majority of individuals attempting to recover from alcoholism do not remain abstinent (see Marlatt, 1999). Furthermore, inpatient treatment is expensive (Schneider & Googins, 1989), and in the current atmosphere of federal initiatives to reduce social service funding, alternative cost-effective approaches need to be considered.

Some authors have suggested that non-treatment, community-based factors may be the best predictors of future recovery status (see Westermeyer, 1989). Following this reasoning, it has been theorized that the most effective interventions may influence these non-treatment factors. Along similar lines, it has been suggested that interventions should attempt to enable naturally occurring healing processes (Valliant, 1995). Alternatively, it has been proposed that treatment factors may be important in overcoming adversity in a short-term context,

even if their effects are short-lived, and that environments that engage clients in treatment appear to be most effective (Moos, 1994).

FIRST- VERSUS SECOND-ORDER CHANGE

One reason many traditional treatment approaches for substance abuse have had high recidivism rates might be that they create “first-order change,” a short-term change that: a) influences the individual without changing the community in which the individual lives; b) rearranges components of the environment while leaving the problematic components of the system in place; or c) leads treatment providers to allocate increasing amounts of resources toward the same, ineffective interventions (Watzlawick et al., 1974). First-order interventions rarely maintain their effectiveness when individuals return to pre-treatment contexts and these programs often exacerbate the crises they were originally set out to resolve (Watzlawick et al., 1974).

First-order change can be contrasted with “second-order change,” which influences the individual, his or her social network, and all other components of the environment that can contribute to a problem such as substance abuse (Watzlawick et al., 1974). Watzlawick et al. originally conceived of second-order change as a solution that resulted from a problem-solver’s insight after cognitively refraining the underlying assumptions of a problem. Second-order change need not be the result of “insight” but does usually involve a substantial shift in perspective. *In essence, second-order change can be defined as the event that takes place when the facilitation of a comprehensive set of processes brings about true systems change* (Dalton, Elias, & Wandersman, 2001).

THE TRANSTHEORETICAL PROCESSES OF CHANGE

Many theories on substance abuse treatment or change could be used to determine the extent to which programs create the comprehensive systems change required for second-order change. However, we believe that one effective lens that can be used to operationally define whether a particular program is more likely to create first- or second-order change is the transtheoretical model of change created by Prochaska, DiClemente, and colleagues (see, for instance, Prochaska, DiClemente, & Norcross, 1992). One major component of the transtheoretical model is a set of 10 processes of change that contribute to substance abuse recovery. These processes have been empirically shown to map the changes in intentions, attitudes, and behaviors basic to addiction recovery in the areas of eating disorders, smoking, and substance abuse (Prochaska et al., 1992). The more processes of change that are influenced by a particular treatment program (and the more thoroughly a program influences these processes), the more likely it is that the program will produce second- rather than first-order change. Based on this

assumption, we will evaluate and discuss various types of treatment programs, their ability to facilitate the processes of change within the transtheoretical model, and therefore their potential to bring about second-order change.

Although there are 10 processes of change, we will focus on several of the most fundamental processes. The *helping relationships* process involves receiving informational or emotional help from others and is similar to the concept of social support (Prochaska, Johnson, & Lee, 1998), which has received substantial attention in the substance abuse literature. Research has found that alcohol-dependent individuals maintain sobriety longer in highly supportive settings where abstinence is encouraged (Jason, Ferrari, Smith, & Marsh et al., 1997). As one might expect, then, alcohol abstinence is most likely when one has social support networks that advocate sobriety (i.e., abstinence support) and one has high social investment in those networks (Longabaugh, Wirtz, Beattie, Noel, & Stout, 1995). Individuals who invest more in their "abstinent social support" networks remain abstinent longer at 18 months post-treatment (Longabaugh et al., 1995).

The *self-liberation* process involves the development of greater self-autonomy that is necessary when taking steps toward abstinence and when attempting to remain abstinent (Prochaska et al., 1998), and it is associated with self-efficacy, the belief in one's ability to exercise control over future actions (Bandura, 1999). Recovering individuals who are low compared to high in self-efficacy relapse more quickly (Allsop, Saunders, & Phillips, 2000) and, one year after treatment, are less likely to abstain (Rychtarik, Prue, Rapp, & King, 1992). Other studies have found that after completing treatment programs, high compared to low self-efficacious abstainers are more likely to remain abstinent at 6- and 12-month follow-up assessments (Rychtarik et al., 1992). AA affiliation after treatment also may facilitate maintenance of self-efficacy (Morgenstern, Labouvie, McCrady, Kahler, & Frey, 1997). In fact, it is possible to "learn" abstinence self-efficacy while in a recovery program, and, in turn, to remain confident at being able to resist the urge to drink in high-risk situations months after treatment (Annis & Davis, 1991). Together, these self-efficacy studies indicate that increasing a recovering individual's belief that he/she can effectively deal with stressful situations has a determinative role in maintaining long-term recovery.

Although it is beyond the scope of this article to discuss each of the processes within the transtheoretical model in depth, other important processes necessary for addiction recovery include *consciousness raising*, *stimulus control*, *reinforcement management*, and *counter-conditioning*. Consciousness raising requires that alcohol or drug dependent individuals attain a greater awareness and acknowledgment that addiction is a significant negative influence in their lives (Prochaska et al., 1998). The stimulus control process occurs when dependent individuals learn to avoid high-risk environmental settings that are among the factors most threatening to abstinence (see Carlson, 1999). In more advanced stages, stimulus control requires the development of necessary coping skills and strategies that allow individuals to counteract the cues that would otherwise trigger problem

behaviors (Prochaska et al., 1992). Two other transtheoretical processes necessary for recovery are reinforcement management, which involves the receiving of implicit or explicit rewards for engaging in abstinent behaviors (Prochaska et al., 1998), and counter-conditioning, which involves finding positive substitutes for problematic behaviors that will counter negative emotions resulting from alcohol or drug abstinence.

TRADITIONAL TREATMENT PROGRAMS AND SECOND-ORDER CHANGE

Possible first-order approaches may contribute to the high recidivism rate associated with inpatient treatment. Despite the attempts made by these centers to de-institutionalize their programs, these facilities often involve rules and assumptions that are not structured to treat the whole individual nor the individual's community outside the hospital setting, and while inpatient treatment interventions may attempt to reduce the individual's desire to drink or use drugs, the individual's post-treatment ecology remains unchanged.

The process of self-liberation is perhaps the most obvious example of a process that is not likely to be facilitated within an inpatient program. Inpatient centers typically offer clients little control over their own treatment plans, a situation that is likely to reduce abstinence self-efficacy and that opposes Dalton et al.'s (2001) suggestion that second-order solutions transform role relationships so that all individuals involved in a particular problem work toward the solution, not just those at the top of the hierarchy. Moreover, these insular, inpatient treatment programs often fail to increase the client's procedural knowledge and develop the real-world scripts and coping mechanisms that must be mastered to overcome the inevitable challenges following discharge. In addition, all inpatient centers set dates by which clients must leave, an eventuality that potentially prevents clients from completely identifying with the center and staff.

The high cost of inpatient services has led to the use of less expensive outpatient treatment programs. In these programs, the client no longer resides within the facility in an attempt to reduce costs (Klijnsma, Cameron, Burns, & McGuigan, 1995), and many studies suggest that outpatient care produces roughly the same relapse rates as inpatient care (Miller & Hester, 1986). One study examining the impact of outpatient treatment with male veterans found no more promising recovery rates than the control group who received no treatment (Ouimette, Moos, & Finney, 1998).

Outpatient programs may appear to increase responsibility by having the clients interact in the world outside the treatment setting, thereby increasing the process of self-liberation. However, this apparent freedom may deprive individuals of necessary stimulus control by prematurely returning them to temptation-filled, substance-using contexts, laden with the stimuli and triggers that lower abstinence self-efficacy (DiClemente, Fairhurst, & Piotrowski, 1994). In the end, outpatient

programs possess many first-order components basic to hospital-based programs, while containing their own unique set of problems.

In order to increase opportunities for second-order change, service providers must invest more (not less) into solutions that transform the individual's present context. However, the rules and assumptions that frame the traditional medical model for recovery reduce the support needed for the patients to maintain abstinence, and for this reason alone, second-order change requires qualitatively different solutions—solutions that enact more encompassing, community-based change.

THERAPEUTIC COMMUNITIES

One of the major responses to the need for innovative programs has been the therapeutic community movement, which originated in the 1960s as an attempt to increase the breadth of available substance abuse treatment (DeLeon, 1999). Since its inception, this movement has represented a shift in both the type and length of services offered to individuals recovering from alcohol or drug dependency. In therapeutic communities, staff and residents share work responsibilities, and residential stays range from six to more than 15 months (DeLeon, 1999). Theoretically, therapeutic communities are likely to increase self-efficacy and the process of self-liberation, and, moreover, this structure appears to successfully develop the helping relationships process, and, by doing so, is hypothesized to increase the recovering individual's ability to learn prosocial behaviors, develop a sense of belongingness, and better trust others (see Burns, 2000).

In fact, evaluation studies have found that duration of time spent in therapeutic communities is related to treatment effectiveness, with longer stays associated with better outcomes (DeLeon, 2000). Length of residency also tends to be longer in therapeutic communities than most inpatient programs, although cost containment efforts and modern managed care have reduced the length of stay in all residential programs (Tucker, Donovan, & Marlatt, 1999). In addition, substance abuse recidivism following treatment in therapeutic communities is as high as other treatment programs with roughly 30% remaining abstinent at 18 months (DeLeon, 1999). It is possible that the therapeutic community model may produce higher abstinence rates by providing recovering individuals with even greater involvement in the course of their own treatment and more substantial opportunities at self-governance. Such techniques would likely supply their clients with the methods to cope effectively and independently with stressful situations and the ability to use these tools in environments outside of treatment (Goldsmith, 1992). In conclusion, the therapeutic community represents a promising intervention that moves beyond more traditional approaches and provides direction toward more second-order change, particularly if it were used in conjunction with other community-based methods.

SELF-HELP GROUPS

Twelve-step and other self-help groups, exemplified by Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), encourage members to progress at their own pace, share experiences, and acknowledge dependency and powerlessness over addiction (Emrick, Tonigan, Montgomery, & Little, 1993). These groups fulfill community-based needs that are not satisfied by traditional hospital-based treatment programs, and they do so without requiring substantial outside funds. Most self-help meetings occur weekly and are financially self-sufficient because they take place in free public space such as local churches and because other activities are supported by small donations collected at weekly meetings. Therefore, unlike hospital-based programs, self-help groups do not allocate external sources toward old solutions—a primary characteristic of first-order change—but, instead, offer creative solutions that require minimal costs.

It appears that 12-step programs may facilitate several processes of change. One study found that AA affiliation was associated with higher scores on helping relationships, consciousness raising, stimulus control, and several other processes of change (Snow, Prochaska, & Rossi, 1994). Of all processes, AA affiliation was most strongly related to “helping relationships,” an effect likely due to the community-based structure of 12-step meetings that may provide each member with a new social network of abstinent companions (Snow et al., 1994). Social support may augment other processes that were found to be related to AA affiliation such as consciousness raising, which may be developed by attending meetings because, at these meetings, people publicly describe the personal events that contribute to addiction, thus making the problems more cognitively salient to anyone at the meeting, particularly the speaker. Abstinent social networks can also provide stimulus control because abstinent companionship reduces the probability of being exposed to addiction-related stimuli.

Unfortunately, these 12-step programs are among the least evaluated approaches for treating substance abuse disorders. Several studies have examined the relationship between outcome and attendance at AA meetings. Timko, Moos, Finney, and Moos (1994), for example, followed up problem drinkers one year after treatment and after they had self-selected into one of four groups: no treatment, AA only, outpatient treatment, or inpatient treatment. More AA attendance was associated with abstinence among AA-only, outpatient, and inpatient group members. Watson, Hancock, Gearhart, and Mendez (1997) also followed people who had finished treatment, and they found moderate and occasional attendees of AA meetings consumed less alcohol than non-attenders. Among patients who had completed either an inpatient or outpatient day program, Morgenstern et al. (1997) found that involvement with AA was the best predictor of abstinence at a one- and six-month follow-up. In contrast, some correlational studies have failed to support a causal relationship between AA participation and sobriety (Galaif & Sussman, 1995). The overall methodological design of most

AA studies have been poor, due to the reliance on retrospective designs and unreliable psychometric properties (Tonigan, Toscova, & Miller, 1996), and given these methodological problems, researchers need to be careful about making over-generalized profiles of AA outcomes (Tonigan et al., 1996). However, given the low cost of these community-based interventions, and the possibility of facilitating several process of transtheoretical change, self-help approaches represent promising candidates to produce second-order change.

The ability of 12-step programs to create second-order change could be greatly facilitated with family members' participation in Al-Anon. Al-Anon is a 12-step program that attempts to provide support and information for family members of alcohol abusing individuals. Research on Al-Anon is even more limited than research on AA and few Al-Anon studies have sufficient statistical power to detect potential treatment effects, but the limited research available is promising. For example, Friedemann (1996) studied residents in inpatient treatment programs and their family members who participated in Al-Anon, comparing them with a control sample of inpatient residents and family members who were not participating in Al-Anon. After three months, 39% of the residents in the Al-Anon condition compared to 61% in the control condition relapsed. Furthermore, a study on 227 alcohol dependent men found that increases in their wives' involvement in Al-Anon increased the men's likelihood of remaining abstinent (Wright & Scott, 1978). Although the primary aim of Al-Anon is not to teach group members how to actively make their family members abstinent, this may be indirectly achieved through the stabilization of the family structure. Length of membership in Al-Anon, for instance, has been associated with better marital adjustment (Keinz, Schwartz, Trench, & Houlihan, 1995), a decrease in the number of family-related and other personal problems (Cutter & Cutter, 1987), and a reduction in family stress for both abstinent and non-abstinent family members (McBride, 1991). Al-Anon provides helping relationships to any family member willing to attend and by doing so can allow these members to provide better helping relationships to non-abstinent family members. By improving family functioning and potentially reducing the problems that originally contributed to the abuse (Read, 1995). Al-Anon helps transform an important part of the substance abuser's ecological system and, in this way, may contribute to second-order change.

RECOVERY HOMES

After treatment in hospital-based programs or therapeutic communities, many patients return to former high-risk environments or stressful family situations. Returning to these settings without a network of people to support abstinence increases chances of relapse. As a consequence, alcohol and substance use recidivism following treatment is often high for both men and women. The recovery home or halfway house is intended to ease the recovering individual's

adjustment to independent living (Coe & Ferrari, 2000). These facilities allow recovering individuals to develop lifestyle skills, receive more aftercare supervision than their families can provide, and still experience a degree of freedom necessary to acquire a sense of responsibility (Coe & Ferrari, 2001).

Research on individuals living in recovery homes following inpatient treatment is encouraging although not extensive (Eliason, Skinstad, & Gerken, 1995). As an example of this research, Hitchcock, Stainback, and Roque (1995) examined whether differences in treatment effectiveness would emerge after male veterans were admitted to either a halfway house or were merely provided community housing. Those in the halfway houses stayed in aftercare 60 days longer, had more clinic visits, and completed treatment milestones at a significantly higher rate.

Despite the recovery model's community-based advances, some recovery homes leave intact many of the ecological determinants that initially contributed to the disorder. For example, many of these homes are based in both high-crime and high-drug use areas, providing the recovering individual with little stimulus control. In addition, some recovery homes impede the development of self-liberation because they have crowded living conditions, time-limited stays, and rules that are not democratically derived. Despite these drawbacks, some types of recovery homes do provide benefits beyond outpatient models and have the potential to promote more substantial second-order change. For example, whereas traditional hospital care and therapeutic communities necessarily involve trained professionals and a maximum length of stay, a recovery home could offer a community without these features. An optimal recovery home might offer residents the freedom to decide whether to seek and choose the treatment they desire while receiving constant support and guidance within an abstinent, communal setting. One type of recovery home that has these characteristics is called Oxford House.

Oxford House

Oxford Houses are rented, multi-bedroom, same-sex, and relatively spacious dwellings, located in low-crime, residential neighborhoods (Jason et al., 1997). Internationally, over 800 homes exist. In the houses, members are required to pay their portion of the rent, perform assigned chores, avoid anti-social or disruptive behavior; and stay free of alcohol and drugs (Oxford House Manual, 2001). Each house decides to accept new members with an 80% majority vote, and because residents run the houses democratically, no professional staff members are involved. In addition, residents may stay as long as they desire, provided they continue to pay their rent and stay free of alcohol or drugs (Oxford House Manual, 2001). Finally, no single, set course of recovery is prescribed (Jason et al., 1997).

Majer, Jason, Ferrari, and North (2002) recently found that over a six-month period, 69% of Oxford House residents had successful outcomes. In addition, Jason et al. (1997) presented participants with a list of positive and negative

expectations to rate before they entered an Oxford House, and at a six-month follow-up, these participants were asked to rate the same list based on their actual experiences. One actual experience that significantly surpassed initial expectations, and rated highest of all positive expectations, was “fellowship with similar peers” demonstrating that Oxford House members are obtaining a sense of community necessary for the helping relationships process of the transtheoretical model. The fellowship and helping relationships evident in the Oxford House model can also contribute to other processes of change. By increasing the number of abstinent individuals in one’s social network, stimulus control is increased. The constant presence of supportive others also leads to both the rewards associated with the reinforcement management process and the emotional support necessary for the counter-conditioning process.

Additionally, based on their Oxford House experiences, members reported that they gained significantly more “personal responsibility” than expected (Jason et al., 1997), a factor relevant to the transtheoretical process of self-liberation. Personal responsibility may partially increase through employment (Jason et al., 1997). Each resident in an Oxford House must become employed because each member contributes to the house’s rent, making other members benefit by helping new residents find employment. Responsibility and life-management skills are also increased when residents are elected to “house positions” (Jason et al., 1997) where, for example, members who have never used checkbooks are commonly elected to “house treasurer” positions and now must acquire skills in personal finance. Self-liberation can also be increased in these settings because Oxford Houses have no maximum stay policy, while providing an authentic family environment, and rules voted on by house members rather than professional staff members.

Clearly, all individuals who are discharged from inpatient units might not be appropriate candidates for an Oxford House type setting, as individuals must be willing to participate in group meetings and chores, as well as pay weekly rent. While preliminary studies have provided encouraging findings, it is not yet possible to know the overall effectiveness of this approach. However, for those individuals who can live in this type of independent setting, Oxford House does represent a promising community-based intervention that might generate second order change.

HARM REDUCTION

In contrast to a few of the models reviewed above, researchers and policy makers alike have begun to recommend the use of non-punitive drug policies and treatments that work toward short-term moderation and gradual decline in drug use even if such methods abandon an immediate goal of strict abstinence (Marlatt, 1998). These “harm reduction” approaches seek to reduce substance use while curtailing many of its negative consequences (e.g., drug overdoses and intensive

withdrawal), with methadone distribution being one example. The harm reduction strategy has been expanded in the Merseyside model, developed in Liverpool, England, where more comprehensive community-based approaches target not only individuals who have already sought treatment, but all members of the heroin-using population (Eaton, Seymour, & Mahmood, 1998). The Merseyside model utilizes physicians, pharmacists, police, and social workers in the process of distributing methadone, heroin cigarettes, and/or clean syringes in exchange for the heroin users' acceptance of information about treatment, safer routes of administration, and health-based knowledge that lessens the impact of such use (Eaton et al., 1998).

The Merseyside program has drastically reduced syringe-transmitted HIV infections (Eaton et al., 1998), but the ability of harm reduction interventions to bring about processes of change and successful recovery—whether defined as moderation or abstinence—is not yet clear. Nevertheless, because harm reduction models are intended to reach and educate an increasing number of individuals who abuse substances, they may be particularly suitable for processes of change such as consciousness raising that require drug-using individuals to become cognizant of the noxious influences that substance abuse has on themselves and others, and the steps needed to reduce this abuse. The Merseyside initiative clearly met this objective by reaching a larger number of heroin users than could be obtained through more traditional methods (Eaton et al., 1998). Moreover, helping relationships within harm reduction interventions can take the form of more supportive social services where local government agencies take treatment-oriented rather than crime-oriented perspectives of drug using behaviors (Marlatt, 1998). These less judgmental approaches may also provide more self-liberation for the recovering individual and allow self-efficacy to be developed gradually and systematically over time (Bandura, 1999). Whether based on Merseyside or other programs, these new treatment interventions and policy approaches can potentially facilitate change processes to bring about second-order change throughout whole communities.

PREVENTION

Another possible strategy to create second-order change within communities involves the prevention of substance abuse problems from occurring in the first place. Research findings indicate that preventive interventions are strengthened by the inclusion of peer, community, and media-based components that convey culturally appropriate messages and are designed to build the skills needed to resist negative social influences that lead to substance abuse. One example of such an intervention is the Midwestern Prevention Project, a comprehensive community-based drug abuse prevention program (Pentz, Mihalic, & Grotzinger, 1997) that targets 10- to 15-year-old adolescents, their parents, and other community residents. The findings suggest that among the many beneficial effects of

the program was a net reduction of 40% in marijuana use, overall decreases in parental use, better communications between parents and children about drug use, and the resultant development of other community prevention programs.

Another example is Project Northland, a community initiative designed by Perry and colleagues (Perry et al., 1996) with the goal of reducing alcohol use among drinking adolescents through a community-wide, multi-year, multiple-component strategy. This ongoing project involved two intervention phases, one in early adolescence and one in later adolescence, with each intervention phase being designed to fit developmental characteristics of the adolescents. The programs included interventions to educate parents, provide peer support, and involve police, school leaders, and community activists. Results from the first phase showed a 20% reduction in alcohol use from the sixth to the eighth grade, and the preliminary results of the second phase are promising.

What is common to both the Midwestern Prevention and Northland projects is that they significantly involve community resources, from schools to businesses to community leaders and police. Both programs utilize processes of change to inoculate youth. They create a preventive form of stimulus control by teaching the skills necessary to resist negative social influences, they use educational methods to encourage consciousness raising, they utilize empowering methods such as role-playing and small-group discussion that can increase self-liberation and self-efficacy, and they provide peer leadership to bring about helping relationships before drug use ever begins.

DISCUSSION

Traditional treatment programs for substance abuse such as inpatient and outpatient centers have high recidivism rates. To some degree, high recidivism rates are characteristic of therapeutic communities and professionally-run recovery homes as well, even though both attempt to meet more community-based and real-world needs. Despite these problems, many of these treatment forms offer unique components necessary for recovery. For instance, inpatient programs and therapeutic communities may offer the best stimulus control during detoxification periods. Therefore, while inadequate in isolation, inpatient programs may support transitions to Oxford House-type interventions that include 12-step attendance. Whether service providers engage recovering individuals in such programs concurrently or successively, these treatment combinations may provide the most complete second-order solutions to substance abuse.

Research suggests that combining treatment programs is more effective than using traditional programs in isolation. In the Ouimette et al. (1998) study, 12-step only participants fared better than outpatient only participants, but individuals who participated in both forms of treatment showed the best substance-use and psychosocial outcomes. Furthermore, Rosenthal (1984) found long-term

abstinence in 75% of the participants who obtained self-help and social learning interventions in conjunction with a stay in a therapeutic community.

Therefore a transition from an inpatient treatment center or more ideally a therapeutic community to a communal-based living experience such as Oxford House can provide individuals with the tools necessary for change. For instance, new Oxford House members can be accompanied by longer-term residents who, in high risk settings, can act as successful role models who teach effective coping and controlling skills, provide information on how to maintain abstinence, and act as advocates for sobriety. In addition, the more individuals invest in these abstinent settings (Longabaugh et al., 1995), the more support from similar others is likely to strengthen the recovering individual's abstinence self-efficacy, and, in turn, promote longer-term recovery. Therefore, although inpatient treatment centers have high relapse rates when used in isolation, these programs can be used to great effect in conjunction with other programs such as 12-step, Oxford House, and other potentially effective programs.

Although some policy makers may perceive harm reduction programs as radical, the methods are not inconsistent with the transtheoretical processes of change. In addition to their impact on consciousness raising, helping relationships, and self-liberation, these approaches that prescribe moderate or "controlled" use could also increase an active form of stimulus control where the recovering individual can learn new ways of controlling their behavior around threatening stimuli rather than simply avoiding such stimuli. Furthermore, because gradual recovery would occur over a longer period of time, it increases the opportunities for real world contingencies and reinforcement management that begins more conservative behaviors and eventually ends with use patterns closer to the abstinence range of the continuum (Marlatt, 1998). Ideally, however, programs such as the Midwestern Prevention and Northland projects would work to facilitate the processes of change before addictions starts. These comprehensive preventive interventions engage in multi-component strategies to create second-order change by not only targeting the individual who is at risk for substance use, but the social network and even the larger community that constitutes the person's social environment.

It is unfortunate that more community-based interventions have not been rigorously evaluated, as conclusions about the efficacy of such programs await these necessary evaluation and outcome studies. In addition to assessing whether or not these community-based alcohol and drug abuse interventions and preventive initiatives are effective, it is critically important to better understand how they exert their effects. Future research is warranted, and we believe that the transtheoretical model might guide investigators in better understanding these processes.

Self-help groups, Oxford House type recovery homes, harm reduction interventions, and preventive community-based approaches exemplify second-order thinking because they involve "*finding ways that persons with disorders may help*

each other, or ways that persons with disorders may be enabled to assume greater autonomy in managing their lives“ (Dalton et al., 2001, p. 9). We do not intend to suggest that innovative forms of therapy do not exist that may help mental health professionals within inpatient treatment programs better facilitate processes of change such as helping relationships, self-liberation, or stimulus control, and help bring about second-order change. Although a review of these therapies is beyond the scope of this article, they include cognitive behavioral programs such as relapse prevention (Marlatt & Gordon, 1985). By attempting to use cognitive behavioral principles to prepare individuals to cope more effectively in the real world when a lapse occurs, these techniques may contribute to an individual’s ability to recover even after a lapse has occurred.

Furthermore, community reinforcement approaches use therapeutic techniques that focus on reinforcement management and counter-conditioning processes and help favor the reinforcing components of abstinence over the reinforcing components of drug and alcohol use (Higgins, 1999; Hunt & Azrin, 1973). Community reinforcement approaches can be used with the recovering individual or with important others and therefore, like Al-Anon, they can help facilitate the process of stimulus control as well as reinforcement management and counter-conditioning processes.

Nevertheless, no program should be expected to work in isolation. It is worth revisiting Watzlawick et al.’s (1974) argument that two types of change exist: “change within a system” and “change that changes the system itself.” Watzlawick et al. (1974) argued that “change within a system” is hampered by “mythologies” that make even the most obvious solutions difficult to recognize. In substance abuse treatment programs, mythologies would include the beliefs that treatment providers must: enforce strict prescriptions on the kind and length of treatment, build substantial daily structure, set single recovery courses for clients to follow, and cut costs (or acquire more money) wherever possible. In contrast, “change that changes the system itself,” or a second-order solution, neither rearranges the problematic components of inpatient models nor focuses on the individual while ignoring his or her environment. Instead, this change transforms the basic assumptions people hold about substance abuse treatment and prevention. For overall recovery rates to improve, both researchers and social service providers should attend more to existing programs that are likely to enact this latter form of change.

There is a societal need to identify community-based interventions that encompasses many of the transtheoretical principles believed to produce lasting change. It would be hoped that after a sufficient participation in one of these community-based interventions, a person with an addiction might have greater abstinence self-efficacy and an established social support network when he or she returns to a former—and otherwise high-risk—environment. In such instances, the community-based model would not have simply rearranged problematic components of an individual’s environment, or focused on single solutions that

would decrease his or her desire for a particular substance. Instead, it has removed the individual from a problematic structure and provided a new community-based foundation in its place.

REFERENCES

- Allsop, S., Saunders, B., Phillips, M. (2000). The process of relapse in severely dependent male problem drinkers. *Addiction, 95*, 95-106.
- Annis, H. M., & Davis, C. S. (1991). Relapse prevention. *Alcohol Health and Research World, 15*, 204-212.
- Bandura, A. (1999). A sociocognitive analysis of substance abuse: An argentic perspective. *Psychological Science, 10*, 214-217.
- Burns, T. (2000). The legacy of therapeutic community practice in modern mental health services. *Therapeutic Communities: The International Journal for Therapeutic and Supportive Organizations, 21*, 165-174.
- Carlson, N. R. (1999). *Foundations of physiological psychology*. Needham Heights, MA: Allyn & Bacon, Inc.
- Coe, M. S., & Ferrari, J. R. (2001). Halfway houses. In W. E. Craighood (Ed.), *Encyclopedia of Psychology and Neuroscience* (pp. 657-659). John Wiley & Sons.
- Cutter, C. G., & Cutter, H. S. (1987). Experience and change in Al-Anon family groups: Adult children of alcoholics. *Journal of Studies on Alcohol, 48*(1), 29-32.
- Dalton, J. H., Elias, M. J., & Wandersman, A. (2001). *Community psychology: Linking individuals and communities*. Stamford, CT: Wadsworth.
- DeLeon, G. (1999). Therapeutic communities: Research and applications. In M. D. Glantz & C. R. Hartel (Eds.), *Drug abuse: Origins and interventions* (pp. 395-429). Washington, DC: American Psychological Association.
- Debakey, S. F., Stinson, F. S., Grant, B. F., & Dufour, M. C. (1996). Liver cirrhosis mortality in the United States, 1970-1993. *Surveillance Report No. 41*. Washington, DC: CSR, Inc.
- DeLeon, G. (2000). *The therapeutic community: Theory, model, and method*. New York: Springer Publications.
- DiClemente, C. C., Fairhurst, S. K., & Piotrowski, N. A. (1994). The role of self-efficacy in the addictive behaviors. In J. Maddux (Ed.), *Self-efficacy, adaptation and adjustment: Theory, research and treatment*. New York: Plenum.
- Eaton, G., Seymour, H., & Mahmood, R. (1998). The development of services for drug misusers on Mersey. *Drugs—Education Prevention & Policy, 5*(3), 305-318. United Kingdom: Carfax Publishing.
- Eliason, M. J., Skinstad, A. H., & Gerken, K. (1995). Substance abuse and motherhood. *Alcoholism Treatment Quarterly, 13*, 81-88.
- Emrick, C. D., Tonigan, J. S., Montgomery, H., & Little, L. (1993). Alcoholics Anonymous: What is currently known? In B. S. McCrady & W. R. Miller (Eds.), *Research in Alcoholics Anonymous: Opportunities and alternatives*. New Brunswick, NJ: Rutgers University Press.
- Fields, R. (1998). *Drugs in perspective* (3rd edition). Boston, MA: McGraw-Hill.
- Finney, J. W., & Moos, R. H. (1991). The long-term course of treated alcoholism: I. Mortality, relapse, and remission rates and comparisons with community controls. *Journal of Studies on Alcohol, 52*, 42-54.

Friedemann, M. L. (1996). Effects of Al-Anon attendance on family perception of inner-city indigents. *American Journal of Drug & Alcohol Abuse*, 22(1), 123-134.

Galaif, E. R., & Sussman, S. (1995). For whom does Alcoholics Anonymous work? *International Journal of the Addictions*, 30, 161-184.

Goldsmith, R. L. (1992). The essential features of alcohol and drug treatment. *Psychiatric Annals*, 22, 419-424.

Higgins, S. T. (1999). Potential contributions of the community reinforcement approach and contingency management to broadening the base of substance abuse treatment. In J. A. Tucker, D. M. Donovan, & G. A. Marlatt (Eds.), *Changing addictive behavior: Bridging clinical and public health strategies* (pp. 283-306). New York: Guilford Press.

Hitchcock, H. C., Stainback, R. D., & Roque, G. M. (1995). Effects of halfway house placement on retention of patients in substance abuse aftercare. *American Journal of Drug and Alcohol Abuse*, 21, 379-390.

Hunt, G. M., & Azrin, N. H. (1973). A community-reinforcement approach to alcoholism: A first approximation. *Journal of Studies on Alcohol*, 52, 517-540.

Jason, L. A., Davis, M. I., Ferrari, J. R., and Bishop, P. D. (2001). Oxford House: A review of research and implications for substance abuse recovery and community research. *Journal of Drug Education*, 31, 1-27.

Jason, L. A., Ferrari, J. R., Smith, B., Marsh, P., Dvorchak, P. A., Groessler, E. J., Pechota, M. E., Curtin, M., Bishop, P. D., Kot, E., & Bowden, B. S. (1997). An exploratory study of male recovering substance abusers living in a self-help, self-governed setting. *The Journal of Mental Health Administration*, 24, 332-339.

Kandel, D. B., Warner, L. A., & Kessler, R. C. (1998). The epidemiology of substance abuse and dependence among women. *Drug Addiction Research and the Health of Women, NIDA*.

Keinz, L. A., Schwartz, C., Trench, B. M., & Houlihan, D. D. (1995). An assessment of membership benefits in the Al-Anon program. *Alcoholism Treatment Quarterly*, 12(4), 31-38.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C., Hughes, M., Eshleman, S., Wittchen, H. U., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. *Archives of General Psychiatry*, 51, 8-19.

Klijnsma, M. P., Cameron, M. L., Burns, T. P., & McGuigan, S. M. (1995). Out-patient alcohol detoxification: Outcome after 2 months. *Alcohol & Alcoholism*, 30, 669-673.

Leshner, A. I. (1998). *Drug addiction research and health of women, executive summary*. National Institute on Drug Abuse: NIH Publication No. 98-4289, Foreword, pp. 3-4.

Longabaugh, R., Wirtz, P. W., Beattie, M. C., Noel, N., & Stout, R. (1995). Matching treatment focus to patient social investment and support: 18-month follow-up results. *Journal of Consulting and Clinical Psychology*, 63, 296-307.

Lyons, L. A., & Kleiner, B. H. Managing the problem of substance abuse without abusing employees. *HR Focus*, 69, 9.

Majer, J. M., Jason, L. A., Ferrari, J. R., & North, C. S. (2002). Comorbidity among Oxford House residents: A preliminary outcome study. *Addictive Behaviors*, 27, 837-845.

Marlatt, G. A. (1998). Basic principles and strategies of harm reduction. In Marlatt, G. A. (Ed.), *Harm reduction: Pragmatic strategies for managing high-risk behaviors* (pp. 49-66). New York: Guilford Press.

Marlatt, G. A. (1999). From hindsight to foresight: A commentary on Project MATCH. In J. A. Tucker, D. M. Donovan, & G. A. Marlatt (Eds.), *Changing addictive behavior: Bridging clinical and public health strategies*. New York: Guilford Press.

Marlatt, G. A., & Gordon, J. R. (1985). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors*. New York: Guilford Press.

McBride, J. L. (1991). Assessing the Al-Anon component of Alcoholics Anonymous. *Alcoholism Treatment Quarterly*, 8(4), 57-65.

Miller, W. R., & Hester, R. K. (1986). Inpatient alcoholism treatment: Who benefits? *American Psychologist*, 41(7), 794-805.

Miller, W. R., Walters, S. T., & Bennett, M. E. (2000). How effective is alcoholism treatment in the United States? *Journal of Studies on Alcohol*, 62, 211-220.

Montgomery, H. A., Miller, W. R., & Tonigan, J. S. (1993). Differences among AA groups: Implications for research. *Journal of Studies on Alcohol*, 54, 502-504.

Moos, R. H. (1994). Why do some people recover from alcohol dependence, whereas others continue to drink and become worse over time? *Addiction*, 89, 31-34.

Morgenstern, J., Labouvie, E., McCrady, B. S., Kahler, C. W., & Frey, R. M. (1997). Affiliation with Alcoholics Anonymous after treatment: A study of its therapeutic effects and mechanisms of action. *Journal of Clinical and Consulting Psychology*, 65, 768-777.

NIDA (1998). Chapter 1: Executive summary. *The economic cost of alcohol and drug abuse in the United States—1992* (NIDA Publication No. 98-4327). Rockville, MD.

O'Farrell, T., & Murphy, C. M. (1995). Marital violence before and after alcoholism treatment. *Journal of Consulting and Clinical Psychology*, 63, 256-262.

Ouimette, P. C., Moos, R. H., & Finney, J. W. (1998). Influence of outpatient treatment and 12-step group involvement on one-year substance abuse treatment outcomes. *Journal of Studies on Alcohol*, 59, 513-521.

Oxford House Inc. (2001). *Oxford House manual*. Silver Springs, MD. www.oxfordhouse.org.

Pentz, M. A., Mihalic, S. F., & Grotmeter, J. K. (1997). The Midwestern Prevention Project. In D. S. Elliott (Ed.), *Blueprints for Violence Prevention (Book One)*. Boulder, CO: Center for the Study and Prevention of Violence, Institute of Behavioral Science, University of Colorado.

Perry, C. L., Williams, C. L., Veblen-Mortenson, S., Toomey, T. L., Komro, K. A., Anstine, P. S., et al. (1996). Project Northland: Outcomes of a community wide alcohol use prevention program during early adolescence. *American Journal of Public Health*, 86, 956-965.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to the addictive behaviors. *American Psychologist*, 47, 1102-1114.

Prochaska, J. O., Johnson, S., & Lee, P. (1998). The transtheoretical model of behavior change. In S. A. Shumaker, E. B. Schron, et al. (Eds.), *The handbook of health behavior change* (2nd ed., pp. 59-84). New York: Springer Publishing Co., Inc.

Read, E. M. (1995). Posttreatment supervision challenges: Introducing Al-Anon, Nar-Anon, and Oxford House, Inc. *Federal Probation*, 59(4), 18-26.

Richman, A. (1977). *Proceedings of Social Statistics Session, American Statistical Association, Part II* (pp. 557-562).

- Richman, A., & Neumann, B. (1984). Breaking the "detox-loop" for alcoholics with social detoxification. *Drug and Alcohol Dependence, 13*, 65-73.
- Rosenthal, M. S. (1984). Therapeutic communities: A treatment alternative for many but not all. *Journal of Substance Treatment, 1*, 55-58.
- Rychtarik, R. G., Prue, D. M., Rapp, S. R., & King, A. C. (1992). Self-efficacy, aftercare and relapse in a treatment program for alcoholics. *Journal of Studies on Alcohol, 53*, 435-440.
- SAMHSA (1998). *National Household Survey on Drug Abuse* (SAMHSA Publication No. 90-1681). Rockville, MD: Substance Abuse and Mental Health Services Administration. SAMHSA Office of Applied Studies: NHSDA Publications.
- Schneider, R., & Googins, B. (1989). Alcoholism day treatment: Rationale, research, and resistance. *Journal of Drug Issues, 19*, 437-449.
- Snow, M. B., Prochaska, J. O., & Rossi, J. S. (1994). Processes of change in Alcoholics Anonymous: Maintenance factors in long-term sobriety. *Journal of Studies on Alcohol, 55*, 362-371.
- Timko, C., Moos, R. H., Finney, J. W., & Moos, B. S. (1994). Outcome of treatment for alcohol abuse and involvement in Alcoholics Anonymous among previously untreated problem drinkers. *Journal of Mental Health Administration, 21*, 145-160.
- Tims, F. M., Leukefeld, C. G., & Platt, J. J. (2001). *Relapse and recovery in addictions*. New York: Springer.
- Tonigan, J. S., Toscova, R., & Miller, W. R. (1996). Meta-analysis of the literature on Alcoholics Anonymous: Sample and study characteristics moderate findings. *Journal of Studies on Alcohol, 57*, 65-72.
- Tucker, J. A., Donovan, D. M., & Marlatt, G. A. (1999). *Changing addictive behavior: Bridging clinical and public health strategies*. New York: Guilford Press.
- Valliant, G. E. (1995). *Natural history of alcoholism: Revisited*. Cambridge, MA: Harvard University Press.
- Watson, C. G., Hancock, M., Gearheart, L. P., & Mendez, C. M. (1997). A comparative outcome study of frequent, moderate, occasional, and nonattenders of Alcoholics Anonymous. *Journal of Clinical Psychology, 53*, 209-214.
- Watzlawick, P., Weakland, J. H., & Fisch, R. (1974). *Change: Principles of problem formation and problem resolution*. New York: W. W. Norton.
- Westermeyer, J. (1989). Nontreatment factors affecting treatment outcome in substance abuse. *American Journal of Drug and Alcohol Abuse, 15*, 13-29.
- Wright, K. D., & Scott, T. B. (1978). The relationship of wives' treatment to the drinking status of alcoholics. *Journal of Studies, 39*(9), 1577-1581.

Direct reprint requests to:

Leonard A. Jason, Ph.D.
 Center for Community Research
 DePaul University
 990 W. Fullerton Avenue
 Chicago, IL 60614
 e-mail: Ljason@depaul.edu