The Impact of Facility No Smoking Policies and the Promotion of Smoking Cessation on Alcohol and Drug Rehabilitation Program Outcomes

A review of the literature

Prepared for

The Canadian Centre on Substance Abuse, Addictions Policy Working Group

by

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PART 1 Background and Purpose

Nature and Overview of the Issues

It has long been known that the vast majority of clients in alcohol and drug rehabilitation are heavy smokers. It is also well recognized that many of the program staff are also smokers. However, as evidence accumulates on the health hazards related to smoking and environmental tobacco smoke, alcohol and drug rehabilitation

programs across North America are moving increasingly toward restriction of smoking in residential and non-residential facilities. In conjunction with the institution of facility no-smoking policies, many of these programs also promote or even offer smoking cessation for staff and clients. Still, for perhaps the majority of alcohol and drug rehabilitation programs in North America, questions about whether or not to deal with smoking, and how to do so, remain open.

Approximately 20% of addiction treatment programs in the United States now address tobacco alongside other chemical dependency (McDonald, 2000). In Canada, a similar number of addiction organizations, as listed in the Canadian Centre on Substance Abuse Directory, have either a restrictive smoking policy, tobacco as a treatment area, or both. Out of 477 listed residential addictions treatment programs, 11% indicate tobacco as a specific treatment area. Of the 676 listed outpatient programs, 22% indicate tobacco as a specific treatment area (CCSA, 2000). The purpose of this paper is to review recent literature that provides guidance in addressing the questions of whether or not to deal with smoking, and how to do so.

Historically, there have been several barriers to addressing smoking in alcohol and drug rehabilitation programs. Many of these barriers have persisted, to a large degree, because of a lack of consistent research information related to the impact of smoking on client health or on their recovery outcomes. *It is the position of this paper, however, that based on a review of research findings from the past decade, there is compelling scientific evidence supporting the incorporation of no-smoking policies and voluntary smoking cessation options into alcohol and drug rehabilitation programs*. Although many research questions remain, there appears to be an evolving consensus on some of the most important issues. Key points of this evolving consensus include agreement regarding:

- The prevalence of a concurrent nicotine dependency among the drug and alcohol clinical rehabilitation populations;
- The evidence of synergistic and deleterious health effects of combined smoking and drinking within this population; and
- The evidence that smoking policies and cessation programs can be integrated into alcohol and drug abuse rehabilitation without jeopardizing recovery goals.

The timing seems right to pursue national consensus on these points by promoting the communications of this information among practitioners and program administrators across Canada.

The literature review is organized around three basic questions:

- Why this issue is important to address;
- What impact can be expected when smoking reduction/cessation is addressed in conjunction with alcohol /drug treatment; and,
- What does the research suggest about policy and program best practices?

PART 2 Why this Issue is Important?

The Correlation Between Drinking and Smoking

Among the general population, smoking increases with increased drinking (Dawson, 2000).

The prevalence of smoking among abusers of alcohol and other substances is two to three times that of the general population. Studies have shown the smoking rate for chemically dependent patients to range from 80-95% (Goldsmith & Knapp, 1993). Horn, et al. (1999) found that 83% of emergency patients who screened positive for alcohol problems were also daily smokers. Alcoholic smokers tend to be more addicted to nicotine than non-alcoholic smokers (Kozlowski, 1993 as cited in Hurt, 1999; Abrams, et al., 1996), and experience more problems related to smoking (Marks, et al., 1997). Batel & Maitre (1995) found that of the 88% of alcohol dependent outpatients in their study who were daily smokers, 91% were dependent on nicotine. Clinical studies have documented that as many as 90% of alcohol dependent individuals smoke more than 30 cigarettes a day (Fertig, 1999). Daeppen, et al. (2000) also found that, among individuals who abuse alcohol in treatment, greater nicotine dependency tends to be correlated with greater alcohol dependency.

The Risks Associated with Co-occurrence

The Impact of Smoking on Alcohol/Drug Recovery Outcomes

Although it is plausible that continued smoking in recovery may help to cue alcohol relapse, findings appear to be mixed (Shiffman & Balabanis, 1995). After their study on the effects of smoking cessation on clients discharged from alcohol and drug rehab, Tonneatto, Sobell & Sobell (1995) concluded that there is no empirical evidence to suggest that reducing or stopping smoking has a significant impact on 12-month alcohol recovery outcomes in Toronto. Contrary to this however, Stuyt (1997) reported on a study conducted by the Texas Tech University where smokers who abuse alcohol regularly had poorer recovery rates at 12-month follow-up, especially if their drug of choice had been a sedative such as alcohol or narcotics. Sobell & Sobell (1996) examined data from the Canadian National Alcohol and Other Drug Survey (Statistics Canada 1990) and found that continued smoking in longer-term recovery (5 years) was associated with increased risk of relapse to drinking.

The Impact of Drinking/Alcoholism on Smoking Cessation Outcomes

Generally speaking, reports of smoking cessation tend to be less frequent among those who drink more (Zimmerman, et al., 1990; Dawson, 2000). In one large-scale population survey, it was found that respondents with a lifetime history of alcohol dependence were 30% less likely to have stopped smoking (Hughes, 1995). Smokers who abuse alcohol are 60% less likely to quit smoking than those with no alcoholism (Breslau, et al., 1996), and alcohol intoxication appears to be strongly associated with smoking relapse (Burton & Tiffany, 1997).

Reinforcement Effects Underlying Co-occurrence

Although it has been known for over 35 years that smoking and drinking go hand-in-hand, we still have little understanding as to why this occurs. The frequent co-occurrence of alcohol use and smoking suggests that similar cues can induce both behaviours and that the act of consumption itself may be included among such cues (Sobell & Sobell, 1996). Available evidence suggests potential genetic influences on many of these interactions (Collins & Marks, 1995). Common cultural, situational and intra-personal factors are also thought to contribute to the relationship between alcohol and tobacco use (Flay, et al. 1995).

Heightened Morbidity and Mortality as Risks Associated with Co-occurrence

In the case of some illnesses, tobacco and alcohol appear to act synergistically to increase the risk of mortality (Hughes, 1995). Individuals that abuse alcohol and smoke have higher risks for cancer and cardiovascular disease than among their smoking peers who do not drink (Bobo, 1992; Abrams, et al., 1996; McIlvain, et al., 1998). Indeed the risk of death for smoking and heavy drinking appears to be even greater than what would have be predicted from their additive effects. Patients previously treated for alcoholism and/or other non-nicotine drug dependence have increased cumulative mortality due more to tobacco-related than to alcohol-related causes (Hurt, et al., 1996; MMWR, 1997). Compared to the general population, Hurt (1999) found almost a three-fold increase risk of death among former patients of an outpatient alcohol rehabilitation program. Tobacco-related diseases accounted for one half of all deaths while alcohol-related causes accounted for only one third.

Natural Remission in Smoking Associated with Alcohol/Drug Recovery

Although spontaneous, concurrent cessation of alcohol consumption and smoking appears rare in situations where individuals stopped drinking without formal treatment (Sobell & Sobell, 1996), Gulliver, et al. (2000) found that the rate of smoking at 6 month follow-up declined in 45% of the smoking patients following treatment for alcohol abuse. A spontaneous reduction in smoking and craving for cigarettes was also reported by Wiseman & McMillan (1998) among clients who had achieved cessation in cocaine use.

Client Motivation in Smoking Cessation

Although some studies have indicated that smokers in alcoholism treatment settings are predominantly precontemplative[1] about quitting smoking (Abrams, 1996), others have found that a majority are interested in quitting (Irving, 1994; Ellingstad, 1999). According to Bobo, McIlvain et al. (1996), interest in smoking cessation among problem drinkers and recovering alcoholics appear to equal or to exceed that observed in the general population.

In a study of alcohol dependent smokers admitted to a residential rehabilitation program, Irving, et al. (1994) found that 75% indicated a desire to quit smoking, and 80% reported that quitting now or in the future would likely have either a

positive or neutral effect on their sobriety. Irving, et al. point out that clients' positive attitudes are often in contrast to the more apprehensive attitudes of many care providers and suggest that residential treatment may be an opportune time to provide smoking interventions. Similarly, Ellingstad, et al. (1999) reported that over 75% of alcohol outpatient treatment clients indicated that they were willing to consider smoking cessation either during or after treatment for an alcohol problem. For many of the clients who indicated a preference for concurrently working on alcohol and smoking, smoking was viewed as a stimulus for alcohol use and smoking cessation was viewed as benefiting the resolution of their substance abuse problems.

Physical health concerns are the most common reasons for wanting to quit smoking among both substance abusers and non substance abusers (Burling, et al., 1997). In a study of readiness for smoking cessation conducted by Clemmey, et al. (1997), methadone maintenance patients were found to be knowledgeable on the health risks of smoking. Further, 61% planned to quit in the next six months, 57% were interested in an on-site program, and 80% were interested in using nicotine replacement products. In a similar study conducted by Frosch, et al. (1998), methadone maintenance clients demonstrated a good overall understanding of the personal risks of smoking and 58% indicated interest in participating in a smoking cessation program.

About half of the drug and alcohol rehab clients in a study conducted by Kozlowski, et al. (1989) indicated an interest in participating in a smoking cessation program. However, 75% said that it would be as difficult, or more difficult, to quit smoking than to quit the drug or alcohol that brought them to the centre. Interest aside, smokers in substance abuse programs typically tend to have fairly low levels of confidence in their ability to actually achieve cessation (Burling, et al., 1997). Unfortunately, outcomes tend to mirror these expectations (see below).

Monti, et al. (1995) point out that expressed interest in quitting smoking appears to change over the duration of program involvement. They discuss how motivation to quit smoking appears to increase among rehab clients between program intake and one-month follow-up. Seidner, et al. (1996) talk about how certain individual differences in clients can account for differences in their receptiveness to the idea of quitting smoking (see Program Considerations below). Bobo & McIlvain, et al. (1996) found that men (problem drinkers and recovering alcoholics) are more likely than women to have made multiple attempts to quit smoking. Men were also 50% more likely to report that they intend to try quitting within the next 6 months. These changes and differences have important implications for program planning.

PART 3 What is the Impact of Smoking Interventions on Recovery Outcomes?

Interactional Effects on Intervention Outcomes

Many studies now appear to support the conclusion that smoking cessation has no detrimental effect on alcohol or other drug treatment outcomes, and several indicate that better recovery outcomes can be expected for alcoholics who quit smoking (Shiffman & Balabanis, 1995; Sobell & Sobell, 1996; and Stuyt 1997). In a study that specifically examined the impact of counselling individuals who abuse alcohol in treatment to quit smoking on subsequent recovery outcomes, Bobo & McIlvain, et al. (1998) found that the intervention condition clients were more likely than the control condition clients[2] to report abstinence from alcohol at both 6 and 12-month follow-up. The researchers speculated that aspects of tobacco counselling may actually reinforce the alcohol treatment process. They pointed out however, that the smoking intervention did not have a significant impact on tobacco cessation[3].

Unfortunately, when it comes to looking at smoking cessation outcomes, studies typically show that only a relatively small number of persons successfully quit smoking during or following treatment for the misuse of another substance (Kalman, 1998). Although individuals who abuse alcohol are as likely as non-abusers to attempt to quit smoking, they are much less likely to succeed (Hughes, in Shiffman & Balabanis, 1995; Hays, et al.1999). Among residential alcohol clients receiving some type of intervention for smoking cessation, one-year quit rates tend to range from only 0%-11% (Hurt, 1999).

Program Implications Arising from the Research

There is a need to develop more effective smoking interventions for those who smoke and abuse alcohol and substances based on an understanding of how they are different from other smokers, and what client or program characteristics predict greater receptivity to smoking interventions. This is because involvement in smoking cessation for newly recovering substance abusers has been found to be neither harmful to sobriety nor effective in achieving cessation (Burling, et al.1997).

Bobo & Lando, et al. (1996) found that recovering alcoholics with high or very high nicotine dependence scores might be less likely than those with moderate or low scores to attempt smoking cessation. Seidner, et al. (1996), suggest that clients who accept cessation intervention are typically younger, experience more smoking-related health problems, and accept that smoking cessation will enhance sobriety. Irving, et al. (1994) observed that subgroups of clients may be identified based on their interest, confidence and optimism and that these subgroups resembled the different stages of change described by the Transtheoretical Model. They suggest that these motivational differences need to be matched with different program response options for clients. Bobo & Lando, et al. also found that individuals in the preparation stage with regards to alcohol abuse were about 12 times more likely to make a serious attempt to quit. McIlvain & Bobo (1999) advise that many patients in alcohol and drug recovery are not aware of the increased health risks related to simultaneously smoking and drinking, and most do not know about the promising results of research on the effects of smoking cessation on recovery. They suggest

that when addressing the issue of client motivation or readiness to change, client education and motivational counselling are important considerations.

Timing of the intervention also appears to be an important consideration. Even without any smoking intervention, individuals who abuse alcohol become more willing to consider changing their smoking habits after some abstinence from alcohol. Monti, et al. (1995) found that during the first week of treatment, only 28% of clients said they would consider trying to quit in the next 6 months. One month later, however, more than 50% reported a willingness to consider cessation in the next 6 months.

Smoking cessation might be particularly difficult early in recovery for some individuals who abuse alcohol. Many recovering alcohol abusers (58%) reported that they smoke at times to cope with the urge to drink. Those who said they had smoked to cope with urges to drink were less likely to have taken a drink a month later. The other side of this coping function is the argument that the continuation of smoking during recovery may be a factor, which contributes to, or "primes", a return to drinking. Research into cross-tolerance between nicotine and alcohol lends some support to this idea. Whereas the coping hypothesis tends to support the argument for delaying cessation attempts until late recovery, the priming hypothesis tends to support the argument for undertaking cessation early in treatment. Although the weight of evidence to-date tends to favour the coping hypothesis, there is no evidence that undertaking cessation and drug treatment concurrently will jeopardize recovery (Kalman, 1998).

Because of the high incidence of concurrent disorders among this population, depression and mental health complications need to be addressed when considering the addition of smoking cessation programs to alcohol and drug treatment (Bobo, et al., 1995; Meyer, et al., 1996; Burling, et al., 1997). Borrelli, et al. (1996) point out that a subset of smokers may be at risk for developing a depressive disorder after smoking cessation. The appearance of depression may heighten relapse risks for newly acquired alcohol and drug or smoking abstinence.

Program variables such as the use of pharacotherapy or harm reduction approaches may, under certain circumstances impact on smoking cessation outcomes. There is conflicting evidence, for instance, that the administration of methadone causes dose-related increases in smoking (Frosch, et al., 1998; Spiga,et al., 1998). Humfleet, et al. (1999) found that even low to moderate levels of alcohol consumption may decrease success in smoking cessation. Although there was no conclusive evidence to support the cause, they did find that using marijuana during cessation did not appear to affect outcomes.

PART 4 Effective Policy and Program Design Elements

Organizational Leadership, Policy, and Culture

Researchers involved with the Oregon chemical dependency treatment center stress the importance of addressing the transformation of organizational culture so that it supports the goal of smoking cessation (Campbell, 1995, 1998). The presence or absence of strong leadership, for instance, will very often determine a rehabilitation centre's ability to successfully implement smoke-free programs (Goldsmith, et al., 1991). Knapp, et al. (1993) and Abrams, et al. (1996) advise that leadership support and clear smoking policy will help to clarify expectations for staff and to overcome barriers such as the myths about drinking and smoking cessation.

Simply implementing a no-smoking policy should also not be expected to impact negatively on alcohol and drug program operation or rehab outcomes. However, it is difficult to implement a successful smoking cessation program in a facility that allows smoking (Hughes, 1995). In one study (Kempf, 1997), no differences were found in program dropout rates for smokers assigned to smoke-free versus smoking-permitted programs. The researchers concluded that no-smoking policies should not be viewed as interfering with either the recruitment or the retention of substance abuse treatment clients.

In several studies, however, the institution of a no-smoking policy appears to have had a detrimental effect on staff morale and client retention (Trudeau, 1995; Kotz, 1993; Capretto, 1993; and, Karan, 1993). In most cases these negative effects appear to have arisen, at least in part, as a result of the sweeping nature of the policies (e.g. prohibiting smoking altogether), or as a result of poor implementation processes (e.g. lack of consultation with staff and clients). In many cases, the programs in question successfully retreated to more flexible non-smoking policies. That is, they allowed smoking in designated areas outside the facility, or in the case of the Minneapolis VA Medical Center, where outside areas had been off-limits to clients. They no longer punished clients for surreptitious smoking. This required an implementation process that involved consultation and education, which resulted in voluntary cessation for clients as well as staff [see Voluntary .vs. Mandatory Programs below].

Training and Education

To promote smoking cessation, clinicians must not only learn how to help those people interested in quitting, they must also learn how to motivate those uninterested in quitting. One significant barrier that limits tobacco counselling by treatment staff is the persistence of treatment dogma stating that smoking cessation should be discouraged until alcohol abstinence is well established (Hughes, 1993 in Bobo, Anderson & Bowman, 1996). The attitude of treatment providers about smoking cessation pose a significant barrier to effective smoking interventions and should be addressed as part of a proactive training approach rather than as a response to the imposition of a smoke-free policy (Burling, et al., 1997).

Bobo, Anderson & Bowman (1996) identify three factors that foster smoking cessation counselling by treatment centre staff*:*

- *personal identification as a non-smoker;*
- *knowledge of the health effects of smoking; and*
- *employment in a facility that encourages smoking cessation for clients.*

Based on this, they advocate providing staff as well as clients with a workshop on tobacco and the treatment of nicotine dependence*.* Perine & Schare (1999) found that both counsellor and client education in smoking issues was effective in significantly changing the client's thoughts in favour of smoking cessation. Counsellors need to be encouraged to take the initiative and encourage clients to evaluate their smoking behaviour (Abrams, et al., 1996). Program physicians are also in an excellent position to provide education to clients. Training physicians in the use of brief motivational interviewing techniques can enhance client motivation to address their smoking. (McIlvain & Bobo, 1999).

Program Options and Design Considerations

Voluntary .vs. Mandatory Programs

The results of several studies indicate that voluntary smoking cessation may be less disruptive than mandatory treatment (Abrams, et al., 1996; Monti, et al., 1995). In fact, mandatory smoking treatment may actually be detrimental to the program (Abrams, 1996; Monti, et al., 1995). In 1989, the Gateway Rehabilitation Center, in Aliquippa, Pennsylvania, instituted a mandatory treatment program for all smoking clients and a complete ban on smoking for clients and staff. This combined approach, perhaps aided by some poor transitional planning, resulted in an extensive underground movement which subverted the smoking ban and caused program referrals to drop off. The program was eventually abandoned and replaced with a voluntary program designed to motivate clients to want to quit smoking (Capretto, 1993).

Similar scenarios unfolded at the Chemical Dependency Unit of the VA Medical Center in Minneapolis (Trudeau, et al., 1995; Joseph, 1993; and Joseph, et al., 1996), and the Inpatient Substance Abuse Unit of the Medical College of Virginia (Karan, 1993). In contrast to these situations, Ker, et al. (1996) reported positive results from the implementation of an involuntary program at a residential treatment center for pregnant and postpartum women. Rustin (1998) presented another account of successful transition to involuntary cessation in two addiction units at the Harris County Psychiatric Center in Houston. Rustin describes an extensive, 2 year phased implementation process, and provides a list of suggestions for others who are considering a similar move. As well, Trudeau et al. (1995) reported that client satisfaction, client interest in quitting, and smoking reduction outcomes all improved once the Minneapolis VA Medical Center retreated from the prohibitive smoking ban and introduced voluntary, motivational counselling approaches to smoking cessation.

Following the implementation of a voluntary (choice-based) smoking cessation program (offered to both clients and staff) at the Donwood treatment centre in Toronto, more than half of the staff who smoked and 40% of the smoking clients

joined the cessation program. Both groups endorsed the value of offering the choice-based approach. Of those smoking clients that participated during the course of their addiction treatment, 17.5% were not smoking at 6 month or 12 month follow-up. There was no evidence that any of the clients' cessation attempts were negatively influenced by having a primary addiction counsellor who smoked. The smoking cessation program ran independently with its own counsellors/leaders. These data suggest that many clients will voluntarily engage in smoking cessation when provided with information and encouragement (Bernstein & Stoduto, 1999).

Campbell, et al. (1998) describes the successful implementation of an integrated, voluntary smoking cessation program in the Oregon chemical dependency treatment center, CODA. Design elements included: staff education, staff training in running the cessation groups, voluntary staff participation in a separate cessation program group, and voluntary participation from clients in residential and outpatient programs. The client groups ran as an adjunct to the other chemical dependency program components. The cessation program involved the use of cognitive behavioural therapy and a nicotine patch. The report endorses the idea of such programs becoming standard, integrated components of chemical dependency treatment programs. Campbell, et al. identifies several program variables, which they believe contributed to a successful implementation. Those elements were strong leadership, gradual implementation with a focus on staff participation and education, and an emphasis on the treatment of nicotine dependence rather than on the non-smoking facility policy. They also recommend individualized assessment and treatment planning to guide decisions about the timing of smoking cessation.

Timing

When the offer of smoking cessation therapy is matched to the time at which the clients' levels of motivation are the highest, it is likely to maximize enrolment in cessation and minimize interference with recovery (Abrams, 1996). Abrams, et al. (1996) advise that regardless of when clients choose to participate in smoking cessation therapy, available evidence suggests that encouragement to stop smoking should begin as soon as possible after they enter treatment. Given a choice between quitting smoking before, during or after receiving treatment for the alcohol/drug problem, Kozlowski, et al. (1989) found that 78% of the alcohol and drug rehab program clients polled indicated that they would not be interested in quitting before treatment. If they were going to pursue cessation, 30% indicated that they would prefer attempting at the same time, while 70% indicated that they would prefer to tackle their smoking after treatment.

According to Ellingstad, et al. (1999), those clients that indicate a preference for quitting smoking and drinking concurrently, as opposed to consecutively, tends to be more confident that they would quit smoking in the next six months. The Ellingstad paper recommends that for those particular clients, treatment entry would likely be a good time to present a dual cessation program option.

Looking at the question of timing purely from the perspective of achieving positive cessation outcomes, however, Monti, et al. (1995) advise that simultaneous participation in smoking cessation treatment for alcohol and drug rehab clients appears to have little beneficial effect on smoking, whereas smoking treatment offered after a period of sobriety seems to produce better long-term results. In support of this, Martin, et al. (1997) found that cessation was likely to be more

successful when undertaken after several months of sobriety. In their study, they were able to achieve cessation rates of 26-27% among recovering alcohol dependent smokers. This rate is comparable to that typically seen in non-alcohol abusing smokers.

Coherency

In the process of adapting available smoking interventions programs, clinicians need to be sensitive to how the language and symbols of the program are compatible with the substance abuse treatment approaches used in the same setting (Abrams, 1996).

Therapeutic Techniques/Tools

The literature identifies several promising therapeutic tools and techniques including the use of the Transtheoretical / Stages of Change model, motivational interviewing, behavioural therapy (eg., cue exposure and skills training), cognitive-behavioural therapy (including a variety referred to as mood management therapy) and various pharmacotherapies. The most effective treatment for nicotine dependence currently available is a combination of nicotine replacement therapy and a cognitive behavioural intervention (Abrams, et al., 1996; and Kalman, 1998)

Although recovering alcohol abusing smokers are likely to be more nicotine dependent than non-alcohol abusing smokers, they can achieve comparable short-term cessation rates with nicotine patch therapy (Hurt, et al., 1995). Options in effective cessation pharacotherapy include: nicotine gum; transdermal patch; nasal spray or inhaler; anti-depressants [e.g. bupropion or flouxetine {Prozac}]; and a serotonin agonist, buspirone. (Boyarsky & McCance-Katz, 2000; Hayford, et al., 1999; and Hays, 2000). Some studies suggest that naltrexone blocks the reinforcing effects of nicotine and may therefore be useful in the treatment of nicotine dependence (Hughes, 1995). A clinical trail carried-out in 1999, however, found naltrexone to be ineffective (Wong, 1999).

Challenges Related to Special Populations or Complicating Conditions

Smokers have relatively high lifetime prevalence rates for both psychiatric disorders and substance use disorders (Keuthen, et al., 2000). In a recent study, Patten (2000) found that 35% of clients in recovery reported a lifetime rate of major depression, roughly double that found in the general population. Bobo, Walker, et al., (1995) and Covey, et al., (1993) also refer to a need to be aware of potential gender differences in depression as a complicating factor in smoking cessation.

A smoking intervention study involving adolescents with a history of substance abuse (Myers, 2000) showed that the smoking cessation program had no negative impact on substance use outcomes. Modest success with cessation was associated with intentions to quit.

PART 5 Summary

The research shows that a high percentage of individuals in recovery programs tend to be heavy smokers, and that the combination of smoking and drinking appear to create a heightened risk for illness and death among this group. In light of growing research evidence on the health hazards of environmental tobacco smoke, public opinion and public policy is moving in the direction of greater restriction of smoking in public places, including health service facilities.

Facility no-smoking policies provide a way for service providers to indicate their concern for the health and well being of both clients and staff. It also provides support and opens the door for the introduction of supplementary or integral smoking cessation program options. Although the research indicates that smoking cessation programs provided to clients have relatively low rates of success, they do work for a substantial number of motivated clients. Further, client participation in smoking cessation does not appear to be counterproductive for, and may actually have a beneficial impact on, alcohol and drug recovery outcomes.

As the science of tailoring policy and smoking cessation programs for substance abuse rehabilitation settings advances, we can only expect the prospects for benefit to increase. The research findings indicate promise for enhancing alcohol and drug recovery outcomes as well as improving smoking cessation rates among this difficult population. Best practices pertaining to both policy and program elements can now be identified. Significant learning has occurred in the last ten years around how facility policy and program interventions should be implemented and how programming can be segmented and targeted to maximize endorsement and participation rates.

The introduction of no-smoking policies within residential rehabilitation settings can no longer be debated solely on the basis of program compatibility. Rather, debate may now need to centre on the issue of leadership. With respect to the introduction of cessation programming into alcohol and drug rehabilitation settings, it is now clear that it can be successfully integrated, and can enhance overall program outcomes. It is also clear that where it is undertaken, it needs to be based on a number of client motivational variables and needs to offer an array of options to match key differences in motivational profiles. Lastly, multi-modal interventions that include pharmacological and behavioural components appear to have emerged in the literature as the current standard for smoking cessation treatment.

References

Abrams, D.B., Monti, P.M., Niaura, R.S., Rohsenow, D.J. 7 Colby, S.M. (1996). Interactions for alcoholics who smoke. *Alcohol Health and Research World*, 20, 111-117

Batel, F. P. & Maitre, B. R. (1995). Relationship between alcohol and tobacco dependence among alcoholics who smoke. *Addiction*, 90, 977-980

Bernstein, S.M. & Stoduto, G. (1999). Adding a choice-based program for tobacco smoking to an abstinence-base addiction treatment program*. Journal of Substance Abuse Treatment*, 17, 167-173

Bobo, J.K. (1992). Nicotine dependence and alcoholism epidemiology and treatment. *Journal of Psychoactive Drugs*, 24, 123-129

Bobo, J.K. & Davis, C.M. (1993). Cigarette smoking cessation and alcohol treatment. *Addiction*, 88, 405-412

Bobo, J.K., Walker, R.D., Lando, H.A. & McIlvain, H.E. (1995). Chapter 13 in Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30). Bethesda, Maryland: NIAAA

Bobo, J.K., Anderson, J.R. & Bowman, A. (1996). Training chemical dependency counselors to treat nicotine dependence. *Addictive Behaviours*, 22, 23-30

Bobo, J.K., Lando, H.A., Walker, R.D. & McIlvain, H.E. (1996). Predictors of tobacco quit attempts among recovering alcoholics*. Journal of Substance Abuse*, 8, 431-443

Bobo, J.K., McIlvain, H.E., Gilchrist, L.D. & Bowman, A. (1996). Nicotine dependence and intentions to quit smoking in three samples of male and female recovering alcoholics and problem drinkers. *Substance Use and Misuse*, 31, 17-33

Bobo, J.K., McIlvain, H.E., Lando, R.D. & Leed-Kelly, A. (1998). Effect of smoking cessation counseling on recovery from alcoholism: Findings from a randomized community intervention trial. *Addiction*, 93, 877-887

Borrelli, b., Niaura, R., Keuthen, N.J., Goldsein, M.G., Depue, J.D., Murphy, C. & Abrams, D.B. (1996). Development of major depressive disorder during smoking cessation treatment. *Journal of Clinical Psychiatry*, 57, 534-538

Boyarsky, B.K. & McCance-Katz, E.F. (2000). Improving the quality of substance dependency treatment with phamacotherapy. *Substance Use and Misuse*, 35, 2095-2125

Breslau, N., Peterson, E., Schlultz, L., Andreski, P. & Chilcoat, H. (1996). Are smokers with alcohol disorders less likely to quit? *American Journal of Public Health*, 86, 985-990

Burling, T.A., Ramsey, T.G., Seidner, A.L. & Kondo, C.S. (1997). Issues related to smoking cessation among substance abusers. *Journal of Substance Abuse*, 9, 27-40

Burton, S. M. & Tiffany, S. T. (1997). The effect of alcohol consumption on craving to smoke. *Addiction*, 92, 15-26

Campbell, B.K., Wander, N., Stark, M.J. & Holbert, T. (1995). *Treating cigarette smoking in drug abusing clients.* Journal of Substance Abuse Treatment*, 12, 89-94*

Campbell, B.K., Krumenacker, J. & Stark, M.J. (1998). Smoking cessation for clients in chemical dependence treatment: A demonstration project. *Journal of Substance Abuse Treatment*, 15, 313-318

Canadian Centre on Substance Abuse. (2000) *Directory of Addictions Organizations in Canada, 2000.* Ottawa: CCSA.

Capretto, N.A. (1993). *Confronting nicotine dependency at the Gateway Rehabilitation Center.* Journal of Substance Abuse Treatment*, 10, 113-116*

Clemmey, P., Broomer, R., Chutuape, M.A., Kidorf, M. & Stitzer, M. (1997). Smoking habits and attitudes in a methadone maintenance treatment population. *Drug and Alcohol Dependence*, 44,123-132

Collins, A. C. & Marks, M.M. (1995). Animal models of alcohol-nicotine interactions. In Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30), 135-141. Bethesda, Maryland: NIAAA

Covey, L.S., Glassman, A.H., Stetnmer, F. & Becker, J. (1993). Effect of history of alcoholism or depression on smoking cessation. *American Journal of Psychiatry*, 150, 1546-1547

Daeppen, J.B., Smith, T.L., Danko, G.P., Gordon, L., Landi, N.A., Nurnberger, J.I., Buchholz, K.K., Raimo, E. & Schuckit, M.A. (2000). Clinical correlates of cigarette smoking and nicotine dependence in alcohol-dependent men and women. *Alcohol and Alcoholism*, 35, 171-175

Dawson, D.A. (2000). Drinking as a risk factor for sustained smoking. *Drug and Alcohol Dependence*, 59, 235-249

DiFranza, J.R. & Guerrera, M.P. (1990). Alcoholism and smoking. *Journal of Studies on Alcohol*, 51, 130-135

Ellingstad, T.P., Sobell, L.C., Sobell, M.B. & Cleland, S.A.(1999). Alcohol abusers who want to quit smoking: implications for clinical treatment. *Drug and Alcohol Dependence*, 54, 259-264

Fertig, J. (1999). NIAAA portfolio on the role of tobacco dependence in the treatment of alcoholism. In NIAAA's *Report of the Subcommittee of the National Advisory council on Alcohol Abuse and Alcoholism on the Review of the Extramural Research Portfolio for Treatment.* Bethesda, MD: National Institutes of Health.

Flay, B.R., Petraitis, J. & Hu, F.B. (1995). The theory of Triadic Influence: Preliminary evidence related to alcohol and tobacco use. In Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30), 37-56. Bethesda, Maryland: NIAAA

Frosch, D.L., Shoptaw, S., Jarvik, M.E., Rawson, R.A. & Ling, W. (1998). Interest in smoking cessation among methadone maintained outpatients. *Journal of Addictive Diseases*, 17, 9-19

Goldsmith, R.J., Hurt, R.D. & Slade, J. (1991). Development of smoke-free chemical dependency units. *Journal of Addictive Diseases*, 11, 67-

Goldsmith, R.J. & Knapp, J. (1993). Toward a broader view of recovery. *Journal of Substance Abuse Treatment*, 10, 107-111

Gulliver, S.B., Rohsenow, D.J., Colby, S.M., Dey, A.N., Abrams, D.B., Niaura, R.S. & Monti, P.M. (1995). Interrelationship of smoking and alcohol dependence, use and urges to use*. Journal of Studies on Alcohol*, 56, 202-206

Gulliver, S.B., Kalman, D., Rohsenow, D.J., Colby, S.M., Eaton, C.A. & Monti, P.M. (2000). Smoking and drinking among alcoholics in treatment: Cross-sectional and longitudinal relationships. *Journal of Studies on Alcohol*, 61, 157-163

Hayford, K.E., et al. (1999). Efficacy of bupropion for smoking cessation in smokers with a former history of major depression or alcoholism. *British Journal of Psychiatry*, 174, 173-178

Hays, J.T., et al. (1999). Response to nicotine dependence treatment in smokers with current and past alcohol problems. *Annals of Behavioral Medicine*, 21, 244-250

Hays, J.T. (2000). Tobacco, nicotine and addiction. *Journal of Substance Use*, 5, 159-164

Horn, K., Williams, J., Hungerford, D., Gao, X., Helmkamp, J., Furbee, M. & Manley, B. (1999). Conjoint alcohol and tobacco use: an opportunity for dual intervention? *Journal of Addictive Diseases*, 18, 141

Hughes, J.R., Higgins, S.T. & Bickel, W.K. (1994). Nicotine withdrawal versus other drug withdrawal syndromes. *Addiction*, 89, 1461-1470

Hughes, J.R. (1995). Clinical implications of the association between smoking and alcoholism. Chapter 10 in Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30). Bethesda, Maryland: NIAAA

Humfleet, G., Munoz, R., Sees, K, Reus, V. & Hall, S. (1999). History of alcohol or drug problems, current use of alcohol or marijuana, and success in quitting smoking*. Addictive Behaviors*, 24, 149-154

Hurt, R.D., et al. (1994). Nicotine dependence treatment during inpatient treatment for other addictions: a prospective intervention trial*. Alcoholism: Clinical and Experimental Research*, 18, 867-872

Hurt, R.D., et al. (1995). Nicotine patch therapy for smoking cessation in recovering alcoholics. *Addiction*, 90, 1541-1546

Hurt, R.D., Offord, K.P., Croghan, I.T., Gomez-Dahl, L., Kottke, T.E., Morse, R.M. & Melton, L.J. (1996). Mortality following inpatient addictions treatment. Role of tobacco use. *Journal of the American Medical Association,* 275, 1097-1103

Hurt, R.D. (1999). Treatment for alcohol and smoking: State of knowledge. In NIAAA's *Report of the Subcommittee of the National Advisory council on Alcohol Abuse and Alcoholism on the Review of the Extramural Research Portfolio for Treatment.* Bethesda, MD: National Institutes of Health.

Irving, L.M., Seidner, A.L., Burling, T.A., Thomas, R.G. & Brenner, G.F. (1994). Drug and alcohol abuse inpatients' attitudes about smoking cessation. *Journal of Substance Abuse*, 6, 267-278

Joseph, A.M. (1993). nicotine treatment a the Drug Dependency Program of the Minneapolis VA Medical Center: A researcher's perspective. *Journal of Substance Abuse Treatment*, 10, 147-152

Joseph, A.M., Nichol, K.L. & Anderson, H. (1993). Effect of treatment for nicotine dependence on alcohol and drug treatment outcomes. *Addictive Behaviors*, 18, 635-644

Kalman, D. (1998). Smoking cessation treatment for substance misusers in early recovery; a review of the literature and recommendations for practice. *Substance Use and Misuse*, 33, 2021-2047

Karan, L.D. (1993). Initial encounters with tobacco cessation on the inpatient substance abuse unit of the Medical College of Virginia. *Journal of Substance Abuse Treatment*, 10, 117-123

Kempf, J. *(1997). The effect of tobacco-free policy on client recruitment and retention in residential substance abuse treatment.* National Library of Medicine Abstract*.*

Ker, M.., et al. (1996). Involuntary smoking cessation: a treatment option in chemical dependency programs for women and children. *National Library of Medicine Abstract*

Keuthen, N.J., Niaura, R.S., et al. (2000). Comorbidity, smoking behavior and treatment outcome. *Psychotherapy and Psychosomatics*, 5, 244-255

Knapp, J.M., Rosheim, C.L., Meister, E.A. & Kottke, T.E. (1993). Managing tobacco dependence in chemical dependency treatment facilities. Journal of Addictive Diseases, 12, 89-105

Kotz, M.M. (1993). A smoke-free chemical dependency unit: The Cleveland Clinic experience. *National Library of Medicine Abstract*

Kozlowski, L.T., Skinner, W., Kent, C. & Pope, M.A. (1989). Prospects for smoking treatment in individuals seeking treatment for alcohol and other drugs problems. *Addictive Behaviors*, 14, 273-278

Marks, J.L., Hill, E.M., Pomerleau, C.S., Mudd, S.A. & Blow, F.C. (1997). Nicotine dependence and withdrawal in alcoholic and nonalcoholic ever-smokers. *Journal of Substance Abuse Treatment*, 14, 521-527

Martin, J.E., et al. (1997). Prospective evaluation of three smoking interventions in 205 recovering alcoholics: One-Year results of Project SCRAP-tobacco. *Journal of Consulting and Clinical Psychology*, 65, 190-194

McDonald, C. (2000) in Psychiatric News, August, www.psych.org/pnews

McIlvain, H.E., Bobo, J.K., Leed-Kelly, A. & Sitorius, M.A. (1998). Practical steps to smoking cessation for recovering alcoholics. *American Family Physician*, 57, 1869-1876, 1879-1882

McIlvain, H.E. & Bobo, J.K. (1999). Tobacco cessation with patients recovering from alcohol and other substance abuse. *Primary Care*, 26, 671-683

Meyer, J.T., Lin, M.M. & Brown, L.S. (1996). Nicotine dependence and depression among methadone maintenance patients. *Journal of the National Medical Association*, 88, 800-804

Morbidity and Mortality Weekly Review (1997). Efforts to quit smoking among persons with a history of alcohol problems. *MMWR*, 46, 1144-1148

Monti, P.M., Rohsenow, D.J., Colby, S.M. &Abrams, D.B. (1995). Smoking among alcoholics during and after treatment: Implications for models, treatment strategies, and policy. Chapter 11 in Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30). Bethesda, Maryland: NIAAA

Munro, G. et al. (1995) *Planning Smoking Cessation Interventions for multiple Substance Abusers: A Needs assessment*. Alberta Alcohol and Drug Abuse Commission.

Myers, M.G. & Brown, S.A. (2000). Cigarette smoking four years following treatment for adolescent substance abuse. *Journal of child and Adolescent Substance Abuse*, 7(1), 1-15

Myers, M.G., Brown, S.A. & Kelly, J.F. (2000). Smoking intervention for substance abusing adolescents: Outcomes, predictors of cessation attempts, and post-treatment substance use. *Journal of child and Adolescent Substance Abuse*, 9(4), 77-91

Patten, C.A., Martin, J.E. & Owen, N. (1996). Can psychiatric and chemical dependency treatment units be smoke-free? *Journal of Substance Abuse Treatment*, 13, 107-118

Patten, C.A., Martin, J.E., Meyers, M.G., Calfas, K.J. & Williams, C.D. (1998). Effectiveness of cognitive-behavioral therapy for smokers with histories of alcohol dependence and depression. *Journal of Studies on Alcohol*, 59, 327-335

Patten, C.A., et al. (2000). Effect of three smoking cessation treatments on nicotine withdrawal in 141 abstinent alcoholic smokers. *Addictive Behaviors*, 25, 301-306

Perine, J.L. & Schare, M.L. (1999). Effect of counselor and client education in nicotine addiction on smoking in substance abusers. *Addictive Behaviors*, 24, 443-447

Rustin, T.A. (1998). Incorporating nicotine dependence into addiction treatment. *Journal of Addictive Diseases*, 17, 83-108

Seidner, A.L., Burling, T.A., Gaither, D.E. & Thomas, R.G. (1996). Substance-dependence inpatients who accept smoking treatment. *Journal of Substance Abuse*, 8, 33-44

Shiffman, S., Fischer, L.A., Paty, J.A., Gnys, M., Hickcox, m. & Kassel, J.D. (1994). Drinking and Smoking: A field study of their Association. *Annals of Behavioral Medicine*, 16, 203-209

Shiffman, S. & Balabanis, M. (1995). Associations between alcohol and tobacco. Chapter 2 in Fertig, J.B., Allen, J.P. (Eds.), *Alcohol and Tobacco: From Basic Science to Clinical Practice* (Research Monograph #30). Bethesda, Maryland: NIAAA

Shipley, R.H. (1999). Clean and sober but dying for a smoke. *Connecticut Association of Addiction Professionals Newsletter*. http://ct.addictionprofessionals.com/newsletters

Sobell, L.C. & Sobell, M.B. (1996). Alcohol abuse and smoking. *Alcohol Health and Research World*, 20, 124-127

Spiga, R., Schmitz, J. & Day, J. (1998). Effects of nicotine on methadone self-administration in humans. *Drug and Alcohol Dependence*, 50, 157-165

Stuyt, E.B. (1997). Recovery rates after treatment for alcohol/drug dependence. Tobacco users .vs. non-tobacco users. *The American Journal on Addictions*, 6, 159-167

Toneatto, A., Sobell, L.C. & Sobell, M.B. (1995). Effect of cigarette smoking on alcohol treatment outcomes. *Journal of Substance Abuse*, 7(2), 245-252

Trudeau, D.L., Isenhart, C. & Silversmith, D. (1995). Efficacy of smoking cessation strategies in a treatment program. *Journal of Addictive Diseases*, 14, 109-116

Wiseman, E.J.,& McMillan, D.E. (1998). Relationship of cessation of cocaine use to cigarette smoking in cocaine-dependent outpatients. *American Journal of Drug and Alcohol Abuse*, 24, 617,625

Wong, G.Y., et al. (1999). A randomized trial of naltexone for smoking cessation. *Addiction*, 94, 1227-1237

Zimmerman, R.S., Warheit, G.J., Ulbrich, P.M. & Auth, J.B. (1990). the relationship between alcohol use and attempts and success at smoking cessation. *Addictive Behaviors*, 15, 197-207

Notes

1[1][1] Precontemplative: the first stage in the 'Stages of Change Model', which is defined as: *the client is not considering change, as there is no perceived need for any change.*

1[1][12] "Control" means a group of clients that did not receive counselling to quit smoking.

1[1][13] Based on the stages of change model and consisted of four 15 minute sessions beginning just before discharge from care and then at 8, 12 and 16 weeks after discharge.

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