Control of Alcohol and Drug Abuse In Industry—A Literature Review

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THE INCREASED ATTENTION TO OCCUPATIONAL HEALTH in recent years stems from industry's concerns for the well-being of employees and for the maintenance of productivity. These concerns are part of industry's heightened awareness of social responsibility; for example, its involvement in urban renewal, equal opportunity hiring, and programs for the disadvantaged (*1*). Not only is industry adapting to the changing values and attitudes toward the job and the work world, primarily by young jobseekers (*2,3*), it is also concerned with workers' well-being away from the workplace.

My focus in this report is on a broad range of problems associated directly and indirectly with workers' use of alcohol and other drugs that are not prescribed by a physician. Some drugs, such as marijuana and heroin, are illegal; others, such as amphetamines and tranquilizers, are sometimes prescribed. In the range of nonmedical use of psychoactive drugs ("alcohol and drug abuse" or "substance abuse"), alcohol-related problems are now preeminent; however, other substance abuse is being seen with increasing frequency, particularly among younger workers.

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Reasons for Substance Abuse Programs

A review of 17 large occupational drug abuse programs (*4*) revealed that many were initiated by union or management officials who had personally experienced alcohol or drug abuse problems—many were recovered alcoholics, or they had adolescent children who were experimenting with drugs or other related experiences. But the human relations ideology in industry is not purely altruistic. Some employers initiate programs in order to avoid the trouble and expense of grievances, hearings, and arbitrations sometimes spawned by alcoholics and other drug users (*5,6*); evidence in this regard has been reported (*7*). The issue of the potential "social control" aspect of occupational substance abuse programing is explored later in this paper.

The cost of an alcohol or drug abuse problem to the employer is often said to outweigh the cost of operating a program to correct the problem. This claim is seldom documented. Although there are many reasons for inadequate evidence of program effectiveness (as discussed later), the efficiency claim is often used to justify the promotion of a program. Some recent articles cast doubt on the importance of the cost issue. Roman (*8*) concluded that cost-effectiveness arguments may not be as persuasive to industry as previously thought, based on his study of the reasons that executives of large organizations gave for adoption of or resistance to occupational substance abuse programs. Roman also concluded that industry has the wherewithal to conduct sophisticated studies, but such studies have not been

done. Clearly, efficiency considerations are not the sole contributors to a decision regarding the need for an occupational program.

The following comment by Dr. R. J. Hilker, medical director for Illinois Bell, encompasses all three reasons in support of alcohol and drug abuse programs (*9*):

> With the expansion of benefit and insurance programs, the view that rehabilitation is the responsibility of the community, with the individual employee utilizing community resources to accomplish his or her own rehabilitation, is a shortsighted one. Problems which are common to the community are common to any employee body. If industry takes the position that rehabilitation is not its responsibility, and these employees are simply dismissed, then inefficient, impaired persons will continue to be taken into employment, trained, disciplined and dismissed. The company, meantime, will suffer from absenteeism, inferior service or productivity, management frustration, poor morale and increased insurance costs. Industry, therefore, has at least a business reason to try to rehabilitate employees who have behavior disorders. These disorders often are not detected or are poorly treated by the general medical community. Many studies have shown that behavior disorders can be handled within an industrial setting more efficiently. With early discovery and intervention the illness may be prevented from thoroughly disabling the employee.

Extent of the Problem in Industry

What constitutes a drug or alcohol problem in industry? Contrary to popular belief, drug usage in the workplace is relatively widespread, and it is not confined to blue-collar minority groups (*10*). Clearly, a definition is needed. The problem is not that a person uses a drug off or on the job, nor even the type of drug; rather, it is the behavior that may be induced by the drug. More specifically, "it is the behavior relative to the performance of (the) job" (*11*). An employee whose drug or alcohol usage impairs his or her health and interferes with his or her work performance has a problem.

The preceding definition is useful, but not complete. The focus is the job performance, with a clear rationale for the employer's concern and the potential for the development of an organizational response. Numerous related elements of a drug or alcohol problem, including acute drug intoxication on the job and the buying and selling of illicit drugs at the workplace, are important. However, an employee's deteriorating job performance resulting from an underlying substance dependency represents the greatest risk because it is the most prevalent element of a drug or alcohol problem; it is also the most difficult element to measure (*11*).

Another element of the definition transcends the impact of substance use on job performance and includes more subjective and human issues. These issues encompass the employees' concerns about their own use, or the use by family members, of alcohol or other drugs. Although the primary targets of occupational treatment programs may be those workers whose job performance is impaired by substance abuse and who are therefore identified by their supervisors or coworkers, the programs should also be open to workers who wish to enroll voluntarily, as well as to their spouses and children.

Despite many difficulties—the worst being that data are limited to self-reports, which probably results in an undercount of alcohol and drug problems—several attempts have been made to document the extent of these problems. A 1975 report of the Florida Department of Health and Rehabilitation Services (*12*) stated that about 10 percent of the State's workforce were persons whose job performance had deteriorated—half were in the early stages of alcoholism or overtly addicted to alcohol, and the remainder were experiencing behavioral or medical disorders (including abuse of other drugs). Another 1975 report, by Booz, Allen and Hamilton (*13*), stated that of the 76 million people in the U.S. workforce, 3 to 7.6 million suffered from alcoholism.

Some researchers have estimated the extent of alcoholism and drug abuse in various kinds of work organizations. Cahalan and Cisin (*14*), in a survey of Navy personnel, found that 19 percent of enlisted men and 9 percent of enlisted women had experienced either critical or very serious consequences from alcohol consumption during the 3 years before the study. Hitz (*15*) concluded that "some occupations seem to provide acceptance or encouragement of drinking patterns and problems which may not be encouraged or accepted elsewhere," and that drinking problems were far more common among "lower blue-collar workers"; this finding was confirmed by other researchers (*16,17*). Roman's study of a national sample of more than 500 executives in large, private businesses (*8*) disclosed that just under 10 percent of them believed that the prevalence of alcohol-related problems in their organizations was as high as 5 percent of their employees—25 percent thought it was lower than 1 percent.

The 1971 New York State Narcotic Addiction Control Commission study (*18*) is widely quoted. This study, which excluded alcohol, found that marijuana was the drug most often used, followed by minor tranquilizers and barbiturates; the issue of job impairment caused by abuse of such drugs was not specifically addressed. However, Trice (*19*) constructed a definition of abuse, using the drug prevalence findings of the commission's study and his knowledge of the impact of various drugs, to obtain a prevalence estimate of drug abuse. From the available data on use and effect on behavior of heroin, barbiturates, and other drugs, Trice concluded that about 1 to 2 percent of the work-

ers in New York City in 1971 were impaired by drug abuse other than alcohol.

In a 1974 study of a national sample of 197 firms that focused on management's perceptions of drug use (*20*), both management and employees reported an awareness of work problems related to use of marijuana (65 percent), amphetamines (39 percent), and barbiturates (35 percent). Further, in a sample of employees asked to report their own drug use, almost 75 percent stated that they were currently using an illegal or nonprescribed drug. Unfortunately, this study also concentrated on patterns of use and did not identify problems associated with this use.

Steele (*21*) found that although the literature claimed extensive drug usage and a major drug problem in industry, a comparison of the claims with the results of various surveys did not conclusively support this assertion. However, he noted that the results of early regional surveys in metropolitan areas seemed to be in concurrence (*22*); yet, in other surveys the persons interviewed distinguished between moderate usage in their companies and drug problems in industry as a whole (*23–25*). Other researchers have reported that relatively few officials perceived a drug problem in their organizations (*20,26,27*).

In a recent study of American young men, it was found that those employed were somewhat less likely to have used drugs (other than alcohol) nonmedically than those who were unemployed (*28*). Even if we accept this finding, recent general population surveys suggest that nonmedical drug use is now far more frequent than many people realize. For example, about 30 percent of all 18- to 25-year olds had used marijuana at least once within the past month. In 1977 (*29*), 11 percent of the nation's high school seniors used marijuana every day, as opposed to about 6 percent who used alcohol every day. While marijuana use far exceeds the frequency of use of any other nonmedical drug (except alcohol and tobacco), the use of tranquilizers, stimulants, and depressants is no longer uncommon. For example, more than 18 percent of Americans between the ages of 18 and 25 reported having used sedatives nonmedically, and nearly 3 percent of those over age 26 reported similar use of drugs. Recent surveys of the general population have found a dramatic increase in the levels of nonmedical drug use within the past decade, primarily in the under-20 age group. Although the tradition of higher use rates for men, minority group members, the poor, the young, and urban dwellers still exists, all the gaps are now narrowing; usage among the previously lower-use segments of the population is increasing most rapidly (*30*).

Caplovitz (*31*), in an intensive study of working addicts in treatment, found that the characteristics of working addicts were more similar to those of other workers than those of nonworking addicts. For example, they tended to be older, better educated, more often married, and more likely to be white than the nonworking addicts in the treatment population. Almost all were addicted to heroin, used high doses of heroin, and were using more than one drug—61 percent were polydrug users, and more than one of every five used at least three illegal drugs in addition to marijuana.

Caplovitz also found that the occupations of his sample of working addicts were fairly similar to those of the general population. Some were employed in a variety of industries, including government, but most were in retailing and manufacturing. Most interesting was that despite their habits, many of these addicts held onto their jobs for some time. Some 68 percent held their jobs for a year or more. However, more than half (53 percent) admitted that their drug habit caused them to lose days at work. Ironically, most addicts (64 percent) believed that their supervisors thought that they were doing a very good job. But 5 percent said they had injured themselves, 4 percent had injured someone else, and 7 percent said they had damaged equipment because of their drug usage. The findings of this and other studies suggest that the stereotype of the heroin addict as a person who is highly unstable and unable to hold a job must be revised.

The impact of drug abuse on work performance varies widely, depending on frequency and amount of use and type and potency of drug (or alcohol). In some instances, individual reactions are also influenced by the setting in which use occurs. In the case of marijuana, it can be assumed that regular use is accompanied by impairment of job performance (*10*). Heavy, regular use of marijuana produces problems that are related most urgently to driving and other complex psychomotor performance, to studying, and to interpersonal relations (*32*). According to Chein (*33*):

> There is no simple or single effect of opiates on work and productivity. Instead, a variety of behaviors vis-a-vis work may occur when a person is regularly using opiates. Whatever behavior we observe in a particular addict resulted not merely from opiates, but rather as a consequence of interactions between his needs and motives for addiction, his personality structure and the neurophysiological effects of the drugs.

In fact, involvement of the heroin addict in the addict subculture—in the interest of maintaining his supply—

has negative effects on job performance beyond those produced by the drug itself.

Another issue complicates the question of impact of abuse of drugs on job performance. Devenyi and Wilson (*34*) stated that many alcohol abusers are also abusers of barbiturates. The effects of barbiturates, especially if used with alcohol, can have severely detrimental effects on job performance. Trice (*19*), nevertheless, concluded from available evidence that of all the drugs, abuse of alcohol overshadows the others in terms of impact on job performance. He stated that alcohol use, and especially long-term abuse, impaired those cognitive functions required for efficient job performance. In a 1976 study of the influence of alcohol on work performance, Threatt (*35*) examined the effects of alcohol use on various aspects of human behavior. He concluded that long-term alcohol abuse created problems beyond impairment of sensory-motor skills and intellectual performance. The physical deterioration from alcohol addiction is well documented. Physical illness due to alcohol can result in absenteeism and ineffectiveness on the job, while psychological impairment can result in poor decision making and reduced output. Impaired judgment is associated with higher accident rates, mistakes, and increased workload for other workers. In sum, employee alcohol or drug problems, or both, affect job performance in many ways, including late arrivals and early departures, absenteeism, poor judgment, accidents and safety hazards, erratic and decreased productivity, failure to meet schedules, lowered morale, resentment among other employees, waste of supervisors' time, and damaged customer and public relations.

Industry's Response to Substance Abuse

Industry has increasingly responded to the problem of alcohol and drug abuse in the form of company policies or programs. "Programs" range from the promulgation of written policies with respect to the organization's response to substance abuse to highly developed, internally staffed programs offering treatment services. Most programs are viewed as part of an employee-employer benefit package designed to identify, motivate, and refer at an early stage those employees with personal-medical problems that contribute to unacceptable patterns of job performance. The assumption is that such programs assist both employers and employees. Employers benefit because they have a control system to identify and offer help to troubled employees, and employees benefit because they are given an acceptable alternative to disciplinary action.

The Third Special Report to the U.S. Congress on Alcohol and Health (*36*) discusses the following major goals of occupational alcohol programs:

- to reach employed problem drinkers in order to reduce the cost of poor performance and absenteeism associated with their drinking
- to minimize grievances and arbitrations associated with employee alcohol problems
- to recover the health and efficient job performance of valued employees
- to provide assistance to the families of employed problem drinkers (and/or to the family members with drinking problems)
- to intervene early enough to obtain substantial rehabilitation

Occupational alcohol programs and policies have been broadened recently to include use of other drugs —primarily, abuse of prescription drugs and increasingly, polydrug abuse. Such programs are known to have a "broadbrush" approach. They are also often referred to as "troubled employee" or "employee assistance" programs (*37*). The emphasis of these programs is early identification and intervention in the workplace, thus allowing for possible identification of an employee who is experiencing the early stages of a developing personal problem. The job performance is usually affected early; therefore, the workplace can be viewed as an important location for early detection—and possible prevention—of substance abuse problems. Also, through this mechanism the employee's family can have access to appropriate substance abuse services.

Four models were identified in a recent classification of occupational alcohol and drug abuse programs (*38*): consultation only, assessment-referral, diagnostic-referral, and diagnostic-treatment (inpatient and outpatient or outpatient only). Shain (*1*) looked at current substance abuse program approaches, components, and characteristics, as follows:

Program approaches: alcoholism only and employee assistance.

Program components: written policy, labor-management involvement, companywide information and education program, supervisory training, uniform identification and referral procedures, availability of treatment resources, and followup procedures.

Program characteristics: degree of emphasis on "early detection," use of constructive confrontation, location of program in organizational structure, and nature of relationship with treatment facilities.

In brief, the dominant occupational program strategy is as follows. The most essential element of this strategy

is the "constructive confrontation" of employees whose job performance has been deteriorating (*17*). Supervisors are encouraged to present the facts of deteriorating job performance to the employee, with offers of whatever health or counseling services are available, including a description of the alcoholism or drug abuse program. Job impairment is the major focus (*1,17,38, 39*). If job performance continues to deteriorate after referral, the supervisor informs the employee that job penalties will occur, again offers and explains rehabilitative services, explains drug and alcohol abuse policies, and emphasizes that the use of these services is optional.

Trice and Beyer (*17*) reported that a large majority of actual policies call for the alcohol and drug abuse program staff to develop referral relationships with community treatment facilities. Referral constitutes the second intervention in the program. Trice and Beyer further pointed out that in unionized companies impaired performance is defined within the framework of collectively bargained contracts and agreements. In short, these programs are based on the assumptions that the most clearcut mechanism for identifying problems related to alcohol or drug use is the supervisor's awareness of impaired performance; alcoholism or drug use should be regarded as a medical problem; regular disciplinary procedures for poor performance should be suspended while an employee seeks assistance; and return to adequate job performance is the sole criterion for judging successful outcome (*36*).

According to Trice (*16*), the use of this general strategy spread slowly during the 1960s. In 1970, more than 100 companies had such policies in operation, and since the early 1970s, the number increased dramatically. However, Trice pointed out that the number of programs:

> . . . still totals no more than 300 to 400 among the larger manufacturing companies, banks, utilities, merchandising, transportation, and life insurance companies. If programs in smaller companies, consortia of small firms, and union-initiated programs are added, the total number of well-implemented programs in this country is probably no more than 600.

Trice stated further that although this was a small proportion of the nearly 500,000 U.S. work organizations that employ 100 or more persons, the increase in job-based programs was substantial. Another source (*36*) estimated that from 1970 to 1973 the number of occupational alcohol programs expanded from 50 to around 500. By mid-1977, the number of organizations with some type of program had increased to nearly 2,400, with 2,000 in the private sector and 400 in the public sector. According to a recent survey (*40*) of a sample of Fortune 500 companies, the proportion of sampled companies reporting having some type of program to identify and help problem drinkers climbed from 25 percent in 1972 to 34 percent in 1974 and to 50 percent in 1976. Although the data also indicated that many of these programs needed substantial upgrading, there was also strong evidence of executive involvement and support for them. There were no reports of union resistance to programing efforts.

With regard to occupational drug abuse programs, management attitudes have shifted to a more humanistic perspective from the earlier policy of immediate termination of employment (*20*). Rush (*25*) found that only 21 percent of 222 companies advocated immediate dismissal, and Johnston (*24*) reported that 23 percent of his sample of 134 employers advocated this policy. Some companies had an informal policy of referring drug users to external rehabilitation sources, but few had formal referral programs. Johnston stated that 36 percent of the 134 employers referred users to external treatment sources, and Rush (*25*) reported 35 percent of the employers referred users for rehabilitation. Steele's efforts at gauging union attitudes and commitment revealed that 32 percent of a total sample of 400 respondents had education programs, 46.2 percent had referral policies, and 26.2 percent had union counseling programs for drug users (*21*).

Trice and Beyer (*17*) consider the Federal Civil Service health program an encouraging example and model for other employers. The program, created by legislative mandate (*41,42*), calls for Employee Alcoholism and Drug Abuse Programs for Federal civilian employees. A recent breakdown of current active health program efforts for all employees of the Department of Health, Education, and Welfare (*43*) showed that only a limited number are being reached by the health program. The reasons given for limited program growth include inadequate agency resources, lack of visible commitment by top management, geographic dispersion of employees, and lack of coverage for substance abuse by Federal health plans.

In 1975, there were 209 substance abuse programs in government agencies and 531 in the private sector (*13*). The breakdown was manufacturing, 66 percent; transportation and public utilities, 11 percent; business, education, social, and health services, 10 percent; finance, insurance, and real estate, 6 percent; and miscellaneous, 7 percent.

Trice and Beyer (*17*) concluded that the anticipated resistance to alcohol and drug abuse programs among top management and union leaders in the 1960s was exaggerated. Instead, they believed that there was unfamiliarity with and apathy toward occupational

programing, rather than outright rejection. Dr. Paul Sherman, president of the Association of Labor Management Administrators and Consultants on Alcoholism (ALMACA) was a bit less optimistic (*44*). He stated that despite a growth of from 300 occupational programs in 1971 to more than 1,500 in 1977 this number represented a very small proportion of the 1½ million U.S. businesses. Moreover, if the programs could be analyzed, perhaps 300 would be found to be operating effectively. Sherman cited stigma and the lack of hard data as major impediments to widespread implementation of substance abuse programs.

Program Impact

What data are available on the actual impact of substance abuse programs? How much do they cost, how many people do they reach, and what are their limitations and successes? There are a number of dimensions of the success of a program. Depending on the motivations behind the establishment of a program and the particular objectives of a program, different groups—employers, employees, unions—judge success in different ways. The essence of a successful occupational program is that it continues over time and is active in rehabilitating its employee participants (*45*). The extent of implementation and continuous functioning can be observed in many ways, primarily by documentation of the rates and types of casefinding and case disposition and the nature, quality, and rates of desirable outcomes.

The essential question is: "What kind and what amount of intervention works best for what kinds of employees in what kinds of environments?" (*45*). Specific indicators useful in answering this question are employment status, level of alcohol or drug involvement, job performance level, criminal involvement, disciplinary action, accidents on the job, sick leave and sick benefits, grievances, and unauthorized absences. Indirect indicators are criminal involvement, accidents off the job, marital stability, relationships with children, and levels of psychological and social functioning. As yet, no study has incorporated all of these indicators in an evaluation of an existing program. The evidence about the effectiveness of occupational programs is generally fragmentary (*45*).

Data collected in a National Institute on Alcohol Abuse and Alcoholism (NIAAA) project from 15 private organizations with alcoholism programs underlined the positive impact of these programs on their clients (*36*). A second phase of the same study indicated that employers' investment in such programs would result in cost savings. A survey of alcohol and drug abuse programs in the railroad industry indicated that rehabilitation rates averaged 69 percent of referrals. However, the NIAAA report cautions that although many studies show substantial success—an estimated 70 percent of referrals—they rarely mention the unsuccessful 30 percent. Trice (*16*) concluded that despite the lack of compelling evidence job-based programs do motivate drug or alcohol abusing employees to seek rehabilitation and to remain in the treatment program long enough to secure significant results. Hiker (*46*), for instance, used a time-series design and compared data on job performance, illness absences, promotions, sobriety, and accidents 5 years before and after intervention with 402 employees. He reported dramatic before-after differences. Unfortunately, no comparison groups were used. In recent testimony (*47*), it was reported that general estimates of rehabilitation range from 50 to 60 percent. Bethlehem Steel has reported 60 percent success, and DuPont Corporation reported 66 percent of 950 alcoholics rehabilitated (Florida Department of Health and Rehabilitative Services, 1975). The NIAAA (*36*), pointed to the support given to occupational programs by a majority of surveyed executives. However, it is possible that executives in companies with programs tend to claim the success of programs beyond what "evidence" may support, since they have sanctioned these programs.

In sum, the weight of the evidence suggests that occupational programs are relatively effective. And yet, until very recently, the evidence of success for occupational programs was restricted mainly to measurements of job performance, and we do not know how representative the treated population is of the total number of people who could benefit from such programs (*45*).

It cannot be said with confidence that financial returns to employers who use these programs outweigh their costs, although most programs make these claims and there are little data to refute them. Most research in this area has been unsophisticated. It has been estimated that problem drinking costs industry $1 to $8 billion, and that costs associated with responding to the problem are far less (*48*).

In several studies the savings resulting from the establishment of an alcohol and drug abuse program were estimated. For example, General Motors' Oldsmobile Division noted a saving of $226,334 as a result of a reduction in lost man-hours (*49*). Indirect costs are computed with indicators such as improved job performance and reduction of accidents as proof of savings (*44*). Winslow and associates (*50*) reported that suspected problem drinkers were 16 times as costly to insurers than were problem-free employees. Problem drinkers also made a significantly greater number of

medical clinic visits, and they were rated lower in percentage of potential by their immediate supervisors.

Program costs related to alcohol and drug abuse treatment for the Federal Civil Service are estimated at $5 per employed person ($15 million) annually with potential cost savings estimated at between $135 and $280 million annually (*51*). Major American commercial insurance carriers estimate that for every dollar spent in rehabilitation efforts, $5 are ultimately saved (*52*). Wrich (*37*) estimates that long-term costs over a 25-year period of an employee assistance program with 1,000 employees are $426,740.

As Schlenger and Hayward (*53*) point out, the reliability of any estimate depends on the methodology from which it was derived. Occupational program cost estimates usually are not made statistically. One exception—the evaluation of a military program in terms of costs and benefits (*54*)—has been cited by Roman (*40*) as evidence of promising work.

Program Limitations

What are some of the current limitations of occupational programs? What has prevented the more rapid acceptance and development of these programs by a majority of corporations? For one thing, the basic programing model that stresses supervisory confrontation on the basis of deteriorating performance is not appropriate for a number of occupational and professional groups (*43*), including executives, most professionals, and those who work in isolated settings and small businesses.

Another difficulty is that of determining the role of the unions in program planning, development, and maintenance. Trice (*16*) stated that recent research demonstrated that the simple presence of an interested and involved union is significantly associated with greater use of a drug and alcohol prevention policy by line managers. In addition, where a company is unionized, and line managers know that the union has taken a position in support of the policy, managers are more likely to use an alcohol or drug abuse policy. Unfortunately, a review of many company policies on alcohol and other drugs of abuse showed a relatively low level of union participation (*17*). However, in many cases labor has been willing to participate in policy and program development (*55*). Indeed, Trice and Beyer (*17*) cited numerous examples of specific union-initiated policies. There are also an increasing number of union-initiated and operated programs for alcohol and drug abusing employees.

However, a great deal of sensitivity exists among union members about the employee assistance program model. Because these programs expand an alcoholism policy's coverage to a wide variety of behavior problems, it is feared that management can "control" legitimate forms of dissent. Moreover, union officials view this situation as possibly leading to new and complex collective bargaining and grievance problems. Also, the expansion of such policies and programs could be viewed as an invasion of "turf," since the labor movement has been providing a wide range of services to union members for years. To complicate the issue further, the American labor movement is not one body with one opinion. Many local labor groups set their own policies and form their own programs. In sum, the evidence suggests that while both sides agree with the goals of alcoholism rehabilitation, a number of institutional constraints must be coped with before such programs become more widespread (*56*).

In a similar vein, there is concern regarding the potentially compulsory nature of substance abuse policies or programs. Because employers can influence the personal behavior of their employees through such policies, the rights and responsibilities of the employee and employer are important issues. Many believe that the right to intervene grows from the employer's right to expect adequate job performance. When drug or alcohol abuse results in impaired performance, the employer has the right to intervene. On the other hand, care must be taken to respect the rights of the employee. Clearly, the employer has the right to intervene only if drug or alcohol use unmistakably impairs job performance. The employer must respect the privacy of the employee.

In a study of the differential use of an alcoholism policy in Federal organizations, by skill level of employees, Trice (*56*) found that the actual use of the policy was greatest in low-skill installations. Although there are many possible explanations for this, Trice concluded that if policies were used as behavior control, a dangerously discriminatory control policy would be in effect.

Another factor in the retarded growth of occupational programs is the limited number of employee health benefit plans that cover alcohol and drug abuse. Hallan and Holder (*57*) reported a recent survey of 31 large companies having continuing occupational programs; 30 of these companies made specific provisions for inpatient care, about three-fourths provided benefits for special treatment centers (for example, care in an alcoholism treatment center), but only 15 covered the costs of outpatient care. These authors noted that the mere existence of a benefit structure

that could cover the costs of alcoholism effectively in no way assured that such benefits were actually used, nor was there any indication of the extent to which total alcohol treatment costs were being met by insurance benefit payments. The survey findings, however, did indicate that benefit plans are surprisingly liberal. Hallan and Holder concluded that the health insurance industry can respond to occupational program needs by providing broadly based health insurance plans. Unfortunately, the survey findings were severely limited because the data were based on only 31 firms.

Cost is often the reason given for excluding alcoholism treatment in company insurance health plans. There is some evidence from a pilot effort in California, which covered State employees for alcoholism benefits, that for every $1 spent to treat alcoholics an estimated 41 cents was saved in health care for nonalcoholics. If the State of California had not paid all the costs for the program during the experimental 2 years, the additional average annual premium for each enrolled family would have been only $2.05, or 17 cents a month, to cover the total cost of treatment for alcoholics (*57*).

As of 1976 (*58*), 13 States had passed legislation mandating that insurance carriers provide coverage for treatment of alcoholics. Also, the Health Maintenance Organization (HMO) Act of 1973 required that all HMOs receiving Federal assistance must include alcoholism services in their benefit package. The major national health insurance proposals introduced in the 93d Congress have also included the requirement for appropriate alcohol (and drug) treatment coverage. In organized labor, more than 1¼ million auto industry workers and their families have Blue Cross coverage for the treatment of alcoholism and drug abuse.

Although coverage of drug abuse services, like alcoholism, is improving, a number of problems remain. Some reasons for the traditional lack of interaction between the private health insurance industry and drug abuse treatment programs are: the notion of drug abuse as a disease was highly controversial; insurers questioned the professional status of individual providers of treatment for drug abuse; insurers were uncomfortable with the setting in which most drug abuse treatment services were rendered; and insurers anticipated uncontrollable costs for continued treatment because of the high rate of recidivism (*59*). The extension by Blue Cross/Blue Shield of Michigan of substance abuse benefits to 1.4 million auto workers is evidence of a more favorable future. Five States have enacted laws encouraging or requiring private insurers to offer drug abuse treatment benefits, and, generally, restrictions which previously limited coverage drastically are being lifted (*59*). Among the 26 mature HMOs now operating, 16 specifically cover drug abuse services. However, a survey of commercial carriers (*59*), revealed that they were even less likely than Blue Cross to cover drug abuse services. Of the 174 companies surveyed, 38.5 percent covered drug abuse services in the same manner as other services; 15.5 percent totally excluded drug abuse services, 17.2 percent provided coverage with stringent limitations, and 28.8 percent did not respond to this question.

Perhaps the major factor inhibiting the expansion of occupational programing has been, until just recently, the dearth of research and evaluation efforts. Because most occupational programs are voluntary and they are initiated in various kinds of organizations, which have different objectives, it is difficult to define what a program really is; hence, whether or not it is successful. Furthermore, even under the best of conditions, the need for confidentiality often limits access to data and thus precludes the ability to address many crucial research issues (*36*).

The research and evaluation that has been done was limited by serious methodological problems. The use of "penetration" rates has been a major problem in evaluating the impact of occupational programs. The penetration rate is a measure of the extent to which the program is reaching its target population. The formula for determining this rate either relates the size of the identified problem group in a given industry to the size of the workforce as a whole or it relates the identified group to an estimated population at risk within the workforce. Unfortunately, prevalence estimates of the total number of employees with drug or alcohol problems in the targeted workforce are required for determining penetration rates, and such estimates vary widely. Other factors also enter into determining penetration rates; for instance, the establishment of a program may reduce the number of employees with problems. Thus, formulas for computing penetration rates must be based on the various stages of program development (*53*).

Defining program success is a second problem in research and evaluation. Success has been defined in various ways, usually as (*a*) significant improvement in job performance by the treated employee or (*b*) modification of drinking or drug-taking behavior. Also creating serious problems are the lack of comparability of findings between studies (definitions of problem behavior are not sufficiently specific), criteria for successful rehabilitation are rarely given, clients' characteristics are rarely described, and followup intervals vary enormously (*1*).

Another difficulty is determining the efficiency or costs and savings of occupational programs. According to Schlenger and Hayward (*60*), reliable cost information is scarce because of the different kinds of records kept by occupational programs, a sensitivity to keeping individual case records, and the difficulty of measuring both the direct and indirect costs of employees' drug or alcohol abuse. These authors also explored the problem of experimental design. The methodologies of most studies involve a before and after comparison of persons who have participated in programs. However, any observed changes cannot be attributed positively to the programs because many employees, including those who were not in programs, may have improved over the time studied. Also, the effects of different components of a program are usually not isolated in most studies of program impact.

Program Issues

In view of the experiences of currently operating occupational strategies, what options are open to those who hope to promote substance abuse programs? No one program model is appropriate for every worksite. The development of the model depends on the type of target population and the type of sponsoring organization. The following are essential characteristics that enhance the effectiveness of substance abuse programs (*45*): written policy; clear procedures; endorsement by top management and union executives; a joint union-management committee; education programs for management and supervisors, union executives and stewards, and employees and families; effective communication at all levels; an active, committed coordinator; informal or formal counselors, or both; active involvement in Alcoholics Anonymous; backup residential treatment service; good liaison with community services; and periodic assessment and updating of the program.

Shain (*1*) advocated that a "model" program's goal should be to help people achieve and maintain satisfactory health and job performance; it also should focus on the causes of deteriorating health and job performance, with particular emphasis on alcoholism and drug abuse, and adopt the strategy of constructive confrontation. Shain also recommended that organizations establish a second method of casefinding—the voluntary strategy—at the same time they adopt the strategy of constructive confrontation. The voluntary strategy would encourage self-referral into the program, with assurance of confidentiality. Thus, intervention and rehabilitation could take place before the problem affects job performance and health to the extent that constructive confrontation is warranted. The voluntary strategy offers an attractive potential for shifting workplace intervention closer toward primary prevention of alcoholism and drug abuse.

The constructive confrontation policy is, of course, an effective tool for other reasons. This expanded concept of occupational alcohol programs has resulted in identifying other personal problems among the workforce, and it offers the employee appropriate assistance for other difficulties which may affect job performance.

The advantages of union involvement in initiation and operation of programs have been stated. Without active union participation, programs are open to abuse in industries employing large numbers of lower occupational status workers who are easily replaceable (*61*). The evidence suggests that both sides are in agreement with the goals of alcohol-drug abuse rehabilitation. Therefore, increased efforts to stimulate joint management-union committees to develop or monitor these programs, or both, and the development of a specific coordinator role for alcohol-drug abuse policy in both the union and management organizational structure are recommended (*17,36*).

Another important issue in the acceptance and expansion of occupational programs is that of organization and support. If occupational programing is a movement, it is not a highly organized movement with close ties between those who work in it (*61*). The movement will have to be organized, and an attempt must be made to obtain consensus on future directions in programing. For instance, it has been suggested that occupational program consultants (OPCs) change their focus from marketing and advocacy to voluntarism. In other words, OPCs should be consultants to business leaders to help them establish or improve their programs. Particularly with respect to drug abuse treatment, occupational program concepts must be promoted in both the work and treatment worlds.

Another way to promote these concepts is to create a position for an industrial specialist in the treatment setting. This person would understand the internal company policies and respect their place in the referral and treatment process and thus would be an important link with the work world. Trice (*19*) labels such persons "brokers" and defines their role as providers of reliable, objective information regarding treatment process and outcome to the work world. He specifically suggests giving research grants to students to accomplish this linkage. One way to convince the involved parties of the importance of this linkage is to demonstrate that the extension of services to the employee's family members—a service which can be provided through the work setting—will have a positive impact on the community. Moreover, occupational programs may in-

directly improve the quality of treatment service in the community by increasing the available third-party payments.

Trice (*19*) and Sherman (*44*) agree that apathy and unfamiliarity with occupational programs and the problems of the drug and alcohol abusers in general are major reasons for the slow growth of occupational programs. They recommend massive public relations and education programs for labor and management. A DHEW report similarly suggests massive education in government organizations, based on a study in which it was found that lack of familiarity with the alcohol and drug abuse policy was associated with underutilization of available resources (*36*). The report further advocates establishing an office of employee assistance programs to demonstrate agency management commitment to the program.

Needs of Special Populations

To reach special populations, including women, young drug users, polydrug users, small executive-upper echelon staffs, and persons in small businesses, it is necessary to modify the basic model. About half of the workforce is employed in small business. One approach advocated by the Addiction Research Foundation (*45*) and others is the consortium, in which a group of employers or joint employer-union groups in a geographic area establish a collaborative alcohol and drug abuse program. The success of such a consortium depends on two basic components—sharing of fiscal and governing responsibility.

The great number of women in the workforce implies unique alcohol and drug abuse problems. Few women are included in the available data on persons identified and helped by occupational substance abuse programs. Some observers believe that women are primarily in occupational settings that do not tend to have policies and programs, whereas others propose that occupational programs are not as applicable to women as they are to men. At this juncture, it is desirable to tailor the substance abuse model in various ways to experiment with outreach to women employees.

Polydrug abuse has become a major problem; thus, the focus of treatment on a single drug dependency in any context must take this into account. Although polydrug abuse is more common among the young, it also occurs among older age groups. Many of today's youth smoke marijuana morning, noon, and night. This labor force of the future must be of increasing concern to employers; at present, it is not targeted by occupational programs. Since the traditional program assumes that an employee's value to the organization is based on substantial training and time investment, this value often does not extend to the youthful abuser. Moreover, young employees may not respond favorably to constructive confrontation—they have less time invested and in some cases a different work ethic. Here too, variations on the traditional substance abuse program model are in order.

Future Research

The maintenance of occupational programing as a viable movement depends largely on demonstrable success (*61*). Demonstrating success will be a research problem. Trice and Beyer (*17*) noted that most research and evaluation efforts have failed to go beyond time-series patterns. They suggested the use of comparison groups strategies, as well as examining the impact of different types of treatments on employees referred from the workforce and the differential impact of various program components. Trice and Beyer also discussed the problem of quantification of benefits in continuing attempts to determine program efficiency. They pointed out deficiency of workplace records. In addition, there is a clear need for reliable data about the use of drugs other than alcohol in the workplace. Although it is reasonable from current evidence to expect alcohol to be the primary problem, there are obvious impacts from the use of other drugs.

Further research also is needed to compare the impact of occupational programs with that of other programs designed to identify and refer the problem drug abuser or alcoholic. And the elements contributing to the positive or negative operations of a program need to be identified and evaluated. Furthermore, the influences of occupational drug and alcohol programs on surrounding communities must be determined.

Insurance Coverage

Several methods by which occupational programs can positively influence third-party payments have been suggested. One strategy is to convince carriers to voluntarily provide coverage for appropriate and sufficient alcohol and drug abuse services to employers. This strategy is feasible, since a major factor in voluntary coverage will be that of competition between carriers. A second strategy is to encourage major purchasers of health insurance to demand such coverage. This strategy can be most effective because employee representatives are continuously seeking improved fringe benefits. A third strategy is to encourage the enactment of mandated health insurance coverage for alcohol and drug abusing employees by State legislation (*57*). Obviously, numerous arguments can be raised against inclusion of such employees, but it is recommended that employers, labor union representatives, and representatives of major carriers in target States be invited to

meet to become acquainted with the possibilities for and the nature and costs of such coverage.

Comments

Within the past decade, two major social developments have greatly influenced society's responses to alcohol and drug abuse. First, there has been a dramatic increase in public acceptance of alcoholism (and to a much lesser extent, drug abuse) as an "illness" requiring treatment, rather than as a moral failing deserving punishment. This shift, often misunderstood in the medical and scientific communities, is the core concept that has led to the reduction of the stigma against alcohol and drug abusers. This stigma had been a major inhibitor of progress in the substance abuse field in the workplace and elsewhere. Public knowledge that everyone is vulnerable to alcohol and drug problems (rather than just the "bad" or the "weak") has encouraged wider support and relatively rapid growth of substance abuse programs in recent years. The second major development has been the unprecedented increase in the non-medical use of psychoactive drugs—primarily, but by no means exclusively, among the nation's youth.

These two developments point the way to some new directions in the future. Emphasis on further reducing the stigma and the inclusion of drugs other than alcohol are vital to the success of substance abuse programs. But these broadened concerns will not be easy to accomplish because of the important differences between segments of the substance abuse population—many differences are related to the potent variables of age, sex, race, and social class.

The illegality of nonmedical use of drugs other than alcohol poses serious and largely unresolved problems. Action programs must retain sufficient specificity to meet the needs of nonmedical drug users. For example, it makes little sense to put people who are losing weight, stopping smoking, or quitting heroin together with recovering alcoholics and telling them that they all have the same problems of "substance abuse" or "behavioral disorders" or that they are "troubled employees." Thus, while the move toward greater integration is reasonable in terms of management and program techniques, it is often impractical clinically.

Finally, the newly emerging concern for health promotion—also called the "prevention" or the "wellness" movement—offers a promising new opportunity for drug abuse and alcohol programs in the workplace. This new, broader focus provides an escape from many of the problems associated with the earlier preoccupation with the involuntary model of drug and alcohol programs. Turning that coin over, it may also be possible for some of the newer prevention programs to learn some useful lessons from the already functioning drug and alcohol programs in the workplace—including the role of "constructive confrontation."

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