Cost-Effectiveness and Preventive Implications of EMPLOYEE ASSISTANCE PROGRAMS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Center for Substance Abuse Prevention

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CSAP Mission Statement

The Center for Substance Abuse Prevention (CSAP) supports and promotes the continued development of community, State, national, and international, comprehensive prevention systems. CSAP strives to connect people and resources with effective and innovative ideas, strategies, and programs, aimed at reducing and eliminating alcohol, tobacco, and other drug (ATOD) problems in our society. CSAP's prevention programs and models, tailored to specific cultures and locales, capitalize on broad-based community involvement and enhanced public and professional awareness of prevention.

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1 Overview of Employee Assistance Programs

Many cost-effectiveness studies indicate the value of employee assistance programs (EAPs) in dealing with alcohol and other drug (AOD) problems. This report reviews a wide range of these studies and presents data about EAP use for AOD-related problems.

EAPs are worksite-based programs designed to help identify and facilitate the resolution of behavioral, health, and productivity problems that may adversely affect employees' well-being or job performance. The focus is wide-ranging, covering alcohol and other drug abuse; physical and emotional health; and marital, family, financial, legal, and other personal concerns that may affect employees. The Employee Assistance Professionals Association (EAPA), an organization with a membership of over 6,000, has adopted standards for EAPs that specify a comprehensive set of services. For an EAP to be most effective, it should include expert consultation for employees and managers; training for appropriate persons in identifying and helping to resolve behavioral, health, or job performance problems; confidential, appropriate, and timely problem assessment services; referrals for diagnosis, treatment, and other assistance; establishment of links between workplace and community resources that provide these services; follow-up services; education and information on the prevention of AOD problems; consultation about environmental changes that may reduce the incidence of employee problems; and coordinated policy statements concerning AOD use and sanctions.

The EAP is usually based on a written policy statement and provides a means for supervisors, managers, and union shop stewards to get expert guidance in dealing with subordinates or coworkers who need help. Self-referral is also encouraged. The guidance is provided by an internal EAP coordinator or a staff member at a contract agency, who may be contacted either by telephone or in person. Some contract agency representatives spend some or all of their time at the worksites for which they provide services, and some internal EAP coordinators are located off-site, to maximize confidentiality.

Employers have been highly receptive to adopting and implementing the EAP model; this implies that employers perceive EAPs as appropriate means for addressing significant workplace problems (Milne et al. 1994). In 1991, national sample data indicated that 45 percent of full-time employees had access to an EAP provided by their employer (Blum and Roman 1992, Blum et al. 1992*b*). Virtually all large workplaces and the majority of medium-size workplaces provide some form of EAP. EAP coverage is least likely to be found in small worksites. A survey of full-time employees, conducted at the end of 1993 and the beginning of 1994, indicated (1) that the proportion of employees who work for employers who provide EAPs has plateaued and (2) that EAP use has increased among employees and their dependents (Blum and Roman 1994).

Data from EAP records and reports between 1984 and 1988 indicate that approximately 5 percent of the employees who work in an organization with an EAP use it over a

12-month period (Blum 1989). About one-fourth of these users have relatively minor problems that are resolved quickly, typically without an external referral. Approximately 1.5 percent of the employees in medium-size to large worksites use the EAP for AOD-related problems in a given year (Blum 1989). At first glance these use rates may appear low; however, they are quite high when considered in light of the expected prevalence of the problems they are designed to address. Further, since most employee tenure is lengthy, it is useful to view EAP use as cumulative over a number of years. From this perspective, without adjusting for turnover or reutilization, approximately 25 percent of an organizational workforce would receive EAP services over a 5-year period, and 7.5 percent of the employees would receive AOD-abuse related services. These rates are based on employee use only; they do not include EAP use by dependents or retirees, which in these data accounts for approximately 20 percent of EAP caseloads.

2 EAPs and Prevention

EAPs do not have a clear practical or conceptual place as part of "prevention" or "treatment" of AOD or mental health problems. In some cases, EAPs have been erroneously classified as a component of treatment. During the founding period of the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in 1971, the policy leadership and programmatic funding of EAP support efforts were placed in the Occupational Programs Branch, in the Division of Special Treatment and Rehabilitation Programs. This placement associated EAPs with treatment concerns, an image supported at least until 1981, when the division was disbanded.

The placement may have been appropriate in the early stages of EAP development and the first several years of EAP staff activity, when caseloads were primarily composed of long-term alcohol abusers and chronic alcoholics, for whom tertiary interventions were required. Initially, staffing for both EAPs and EAP support activities was made up largely of recovering alcoholics. Not only did the treatment and recovery experiences of these persons loom large in the direction of their work, but their experiences were generally inconsistent with notions of primary prevention; that is, alcohol abuse or excessive drinking were commonly seen as markers of the forces (the "allergy" of Alcoholics Anonymous) leading to alcoholism, believed to be irreversible without abstinence-directed treatment interventions.

Had there been the opportunity for a choice of a conceptual home for EAPs in both government and the private sector, many EAP workers would have favored EAPs' continuing to be classified as treatment. There are generally more resources and opportunities associated with treatment than with prevention; treatment activities tend to be more prestigious than prevention activities; and the results of treatment are typically more tangible and measurable than the consequences of preventive interventions.

Making a distinction between prevention and treatment, however, misrepresents the reality of EAPs in many respects and sharply limits the development of a truly integrated continuum between community and worksite prevention efforts. AOD and mental health problems require multifaceted solutions, but bifurcated prevention and treatment labels and constituencies have encouraged competition between these two essential components of community and worksite policies and practices. Mature EAPs and those in communities that have other AOD prevention activities deal less often with late-stage problems. Also, as they evolve, EAPs are less likely to be staffed by recovering persons without advanced clinical training, a staffing pattern typical of EAPs in the 1970's. Increased professionalism increases the likelihood of a focus on primary and secondary prevention activities.

EAPs are substantially involved in prevention activities on both the individual and worksite levels. Their basic roles include supervisory consultation, assessment, treatment linkage, and follow-up/aftercare or relapse prevention. The

typical image of EAPs is centered around caseloads of employees with problems, but many preventive activities occur under EAP auspices. The following are examples of cases in which EAPs have played a role in prevention:

- One of the most costly experiences for individuals, families, and communities is job loss by a significant breadwinner. The impact of unemployment on all family members has been well documented. Because they are designed as human resource conservation programs, EAPs help prevent unemployment or gaps in employment. The goal of an EAP is to retain jobs and career continuity for individuals and their families while preventing costly turnover experiences for employers.
- By definition, EAPs deal with clients who are still able to do their jobs. In their attention to alcohol and other drug use, EAPs see substantial numbers of clients who may use AODs to excess but who have not yet passed to stages of impairment characterizing severe dependence or addiction. Confrontations, either formal or informal, that include the contingency of job sanctions or loss may halt the progression to alcoholism or other drug dependence and addiction.
- Services are made available to employees' family members, reducing the occurrence of alcoholism and other drug dependencies among them as well. This kind of assistance clearly affects the work setting, since employees with troubled family members are likely to become performance problems themselves.

- Informing employees' families of EAP availability may encourage early referral of workers with AOD problems. Family members who know about the EAP usually become involved in the referral process at a much earlier stage than would be expected in the ordinary course of events.
- EAP caseloads include many employees with family problems and other dysfunctions that do not appear to involve AOD dependence, but that may be prodromal to dependence. Thus, EAPs engage in primary prevention of AOD abuse by helping people resolve problems that otherwise might lead to excessive or dependent use of alcohol or other drugs as coping devices. EAPs also can mitigate the consequences of AOD problems if AOD abuse is already apparent as part of the family discord.
- EAPs provide an array of services to employees who are parents. By providing services to parents who need them, EAPs also engage in potential AOD abuse prevention for their children.
- As drug-free workplace policies are implemented, EAP personnel can play a vital role in the design and integration of employee testing strategies. When drug-free policies are implemented, it is critically important to minimize contradictions between them and other organizational policies. EAP referral of employees with positive drug screens was not envisioned in the original design of the drug-free workplace. This may not only prevent job loss for the individual and costly turnover for the employer, but such

referral also can translate the positive drug test into a counseling strategy to prevent AOD use or abuse from escalating to dependence or addiction.

- EAPs provide advice and brief assistance to self-referred clients, which may preclude the need for their entry into community-based treatment.
- EAPs provide educational materials to employees about AOD and mental disorders and their prevention, a direct strategy of primary prevention.
- EAPs generate primary prevention by educating supervisors and union representatives about the management of AOD and mental health problems. It is clear from research cited later in this report that supervisors have substantial effects on employees' decisions to deal with personal problems before they reach the stage of job performance decrements that can be documented.
- EAP presence is highly correlated with distinctive rules against the use of alcohol in all work-related functions, and with the presence of no-smoking workplace policies (Blum et al. 1990, Blum and Roman 1994). The philosophy emanating from the EAP offers synergistic support to these policies through its contribution to a workplace culture that emphasizes behavioral health, a contribution that is clearly primary prevention.
- EAPs contribute to transformations of workplace cultures from those that support excessive drinking and stigmatize attempts at recovery into cultures that pro-

vide support for defining and dealing with AOD problems and for employees who have elected to do so.

EAPs are worksite mechanisms that help bridge the gap between prevention and treatment. Social settings and relationships are important in the development of and recovery from AOD problems (Bacon 1973). These forces are also central to successful prevention. Next to the family, worksites are the most important contexts for shaping and constraining expectations and behavior concerning alcohol and other drugs (Beattie et al. 1992). EAPs have been adopted across the private and public sectors as integral parts of worksite AOD abuse prevention activities. They are involved in resolving family problems, and they include family members in the prevention or resolution of problems relating to alcohol and other drugs. Access to an EAP is even more important for employees whose families are unable or unwilling to prevent or resolve problems, or those who have no family support structures.

These observations are based on an *open systems* perspective, in which worksite programming occurs in community settings—the community influences the worksite and the worksite influences the larger community. The next section is a review of published and unpublished studies of, first, the cost-effectiveness of EAPs. These studies focus on the treatment impacts of EAPs, which means that the data underestimate the true value of EAPs' impact beyond the individual employee and do not consider traditional conceptualizations of prevention. The second section presents recent data about individual employees/clients of EAPs,

data that reflect preventive processes within the EAP, at the worksite, and in the larger community. The third section reconceptualizes the preventive role of EAPs, describing a variety of processes that are part of prevention but usually unmeasured and describing the synergy between EAPs and worksite wellness programs and other parallel activities.

3 Cost-Effectiveness Studies

Studies of the effectiveness of EAPs are generally limited to before-and-after comparisons of EAP clients. These are typically single-group pre- and post-test designs with outcomes centered on some organizationally relevant or individual AOD use variable. In some instances comparison groups are also included in the studies, usually without indication that the EAP and comparison groups are legitimately comparable. The research designs of EAP evaluations often have deficiencies, but the evaluations still provide information about the importance of EAPs in worksite prevention and intervention for employee and family member problems, including AOD abuse.

Four caveats apply to the following review:

1. Indisputable proof does not exist that all EAPs are cost-effective or that a single EAP model can be assumed to be cost-effective across many settings. Nonetheless, EAPs continue to be adopted and maintained by many companies. EAPs are especially prominent in larger companies that see benefits from their own EAPs which have not been reported in research journals (Blum and Roman 1989, Harris and Heft 1992). Research surveys indicate that 82.3 percent of companies with more than 1,000 employees have an EAP (Hartwell et al. 1995).
2. There are many areas of human resource management in organizations for which there is little if any

evaluation research (Dunnette 1990, Harris and Heft 1992). EAP evaluation is probably at a more advanced stage than evaluation of most other parallel worksite practices.

3. All of the published studies indicate that EAPs are cost-effective. There is no published evidence that EAPs are harmful to corporate economies or to individual employees. Given the tremendous competition that exists in the human services delivery field, competent studies that cast a negative light on the economic or social value of EAPs would be published in professional journals and would quickly draw media attention. If such studies exist, they are not visible.
4. The extent of improvement in outcome measures is limited by the kinds of clients seen, the severity of their problems, and their work performance difficulties. If assistance is provided in the early stages of a problem, dramatic investment-to-cost ratios are less likely, especially if the study is treatment focused rather than prevention focused. In other words, clients with dramatic middle- and late-stage problems who are very costly to the organization will show the greatest cost reductions, and organizations with many such clients will produce the most dramatic time-series changes in costs. Thus it is possible for poorly implemented EAPs to show the most dramatic results, if costs and cost reduction are defined in traditional ways.

Despite the lack of definitive studies of the outcomes of EAPs, there is an impressive accumulation of evidence

across a variety of worksites about EAP effectiveness. Consistent with the perception of EAPs as part of treatment, these studies are limited to individual client outcomes; thus they examine only part of what EAPs can do.

EAP Study Findings

The **Hazelden Foundation** compiled a list of 11 studies, conducted between 1976 and 1981, on the cost impact of EAPs in dealing with employees with alcohol problems (Bureau of National Affairs 1987). These studies indicate substantial improvement among EAP clients in work performance, as well as reductions in accidents, grievances, visits to the medical department, and workers' compensation claims. In one study conducted in a number of plants, EAP clients showed improvement on before-and-after measures in all of the above criteria (Foote et al. 1978). Of the three plants included in a study of absenteeism before and after EAP use, absenteeism increased in one plant and decreased in the other two. In four plants where sickness and accident data were available, three had increased rates in the year after entry into the EAP, probably reflecting the use of sickness and accident benefits for AOD treatment. This study also indicated that changes in measures are not always consistent across different EAPs. Employees whose job performance levels were well below the company norm at EAP intervention showed improvements in performance after intervention, while employees who were not performing below the norm did not show improvement. This finding is consistent with our observation, in caveat number 4, about

improvement artifacts associated with low scores and measures that are viewed over time.

In the before-and-after outcome comparisons of Hazelden clients (Bureau of National Affairs 1987), more than one-third of the clients had improved quality and quantity of work, improved relationships with coworkers and supervisors, at least a threefold decrease in arriving late or leaving early, and a decrease in other absences from an average of 56 absences before EAP use to none. Utilization of health insurance decreased, as did number of sick days, but medical leave days increased. Workers' compensation episodes decreased from eight to zero, with no change in workplace accidents, which are rare but potentially tragic and costly events.

Kurtz et al. (1984) reviewed eight studies that used change in drinking behavior as an indicator of outcome. These studies all indicated improvement in drinking status after EAP use. In the two studies that had comparison groups of employees who refused to use the EAP, more than twice as many in the EAP use group had "socially recovered." This review also examined 16 studies that used work performance as the criterion of success. Absenteeism was the most frequent criterion examined; it decreased in all studies in which it was evaluated. Reductions in accidents, grievances, disciplinary actions, and the use of sick leave were also reported.

Kurtz et al. (1984) also reviewed 11 studies with cost reduction as the criterion of workplace program success. Six of

these studies used no comparison group, four used comparisons with those who refused EAP or treatment, and one study compared EAP clients with employees who had personal problems not involving alcohol and other drugs and also with the norms for the organizational population. Three of the studies did not show any significant cost reductions, one study indicated a negative cost-benefit ratio, and seven studies indicated substantial savings. One study indicated a 5:1 reduction in work hours and wages lost for those who used the EAP compared with those who refused to use the EAP over a 1-year period. This same study indicated a 13:1 change in use of sickness and accident benefits; employees who used the EAP had a reduction of 5 percent in the 12-month period, compared with a 60 percent increase among those who did not. A 1977 study included in the review indicated 2.2 times more saving for rehabilitation than for replacement of employees who used the EAP; a 1980 study indicated a saving of $1,590 per EAP user in sickness and accident benefits over a 5-year period; and a 1972 study indicated a saving of $1,142 per EAP user.

A number of studies have been conducted since the Kurtz et al. review. Like many evaluations of human resource activities, these studies do not always meet the requirements of rigorous evaluation. In some instances they do not appear in peer-reviewed publications because they contain internal company data or proprietary information. Some appear in trade publications with minimal description of the research methodologies. However, the methodologies of these more recent studies show improvements over those

of earlier studies and continue to indicate the cost efficacy of EAPs.

EAP cost-effectiveness data generally indicate savings-to-investment ratios ranging from 1.5:1 to 15:1 (McDonnell Douglas 1989); the results of a 1989 study (Smith and Mahoney) conducted at the **McDonnell Douglas Corporation** estimate a minimum 4:1 savings-to-investment ratio. This study found minimum (conservatively estimated) savings of $5.1 million as the result of use of the company's EAP, which served 100,000 employees and 250,000 dependents. The study compared EAP clients who received AOD dependency or psychiatric treatment with employees who received treatment for the same categories of problems during the same time period but accessed treatment through other routes. Data were compared for the year of program entry, with follow-up points ranging up to 3 years later. EAP clients treated for AOD dependency missed 44 percent fewer days of work, and EAP clients treated for psychiatric conditions missed 34 percent fewer days compared with those who sought treatment on their own. At the end of 4 years, EAP clients treated for AOD dependency had a turnover rate of 7.5 percent, compared with a 40 percent turnover rate for employees who received treatment using other routes. In a similar comparison of EAP clients and others treated for psychiatric conditions, the former had a 60 percent lower turnover rate. The medical claims of spouses and dependents who accessed treatment through EAP referral were 35 percent less than those of spouses and dependents who did not use the EAP. The average per-case cost for EAP clients was $7,370 lower for AOD

dependency and $2,400 lower for psychiatric cases than the costs for employees who did not use the EAP.

The average per-case employee medical claim for EAP clients with alcoholism was $9,898 less than that of employees who entered treatment without using the EAP. The comparable figure for other drug diagnoses was $715 less; for mixed abuse diagnoses, $5,779 less; and for psychiatric conditions, $715 less. The excess costs of treatment among those not using the EAP for alcohol problems for spouses or other dependents was $5,522; for other drug diagnoses, $7,765; for mixed-abuse diagnoses, $739; and for psychiatric conditions, $6,292.

Sample sizes and selection criteria for constructing comparison groups are not always clear in the reports from this study. Also, the study provides no information to demonstrate the similarity of the EAP-using and non-EAP-using samples, particularly with regard to symptom severity. The analysts attribute any differences between the groups to EAP use, assuming that the groups are similar in all important characteristics of a sociodemographic or occupational nature. This may be a reasonable assumption: Other studies (e.g., Beyer and Trice 1978, Milne et al. 1994) reveal that knowing of the EAP's existence and understanding of how it operates are more important factors in EAP use than employees' social characteristics. In any event, the results of this study are dramatic, and it is difficult to conceive of an alternative explanation for the cost savings. Even if the savings were explained by differential problem severity between

EAP clients and comparison groups, evidence for the impact of early EAP intervention would still be apparent.

The study also provides important information about employees who belonged to **health maintenance organization (HMO)** plans (McDonnell Douglas 1989). The HMOs did not provide specific data about the use of AOD abuse and psychiatric services, which prevented analysis of medical claims for employees who were enrolled in the HMO and also used the EAP during the study. Absences were comparable during the year of entry into the EAP for employees enrolled in HMOs and those with fee-for-service coverage, but in subsequent years substantially more absenteeism was observed in the HMO group, as well as more loss of employment. It is not clear, however, whether the adverse impact for HMO clients was the result of treatment received or not received through the HMO or whether it was the result of other factors, such as the demographics of employees who were more likely to choose HMO coverage. Other data (Welch 1984) suggest HMO enrollment would be more likely among employees who are younger, have shorter tenure, and are in lower occupational levels.

McDonnell Douglas Corporation also commissioned a cost-impact study of a pilot project that used an integrated EAP–managed care program for 6,980 employees and 10,033 dependents (Yandrick 1992). This project evolved in the following way. The philosophy of the company was not compatible with the managed care proposals it received in response to a call for proposals. The proposals were characterized by a focus on cost objectives; impersonal, rigid

utilization review (UR) systems; lack of long-term case management; incompatibility with existing EAP operations; and lack of experience with comprehensive, integrated systems that include EAPs, UR, and case management.

McDonnell Douglas selected a new managed care organization that was willing to design a network and administrative system to meet the company's goals of flexibility and commitment to excellence in patient care. The results of the first 2 years (1989–90) of the pilot program indicate that an integrated managed behavioral care system that builds on an EAP base is of great potential value. Per capita mental health/AOD dependency costs were reduced by 34 percent in the first year and 13 percent in the second, without significant complaints from employees about the quality, accessibility, or quantity of care (Beckman 1992). Moreover, in the first year, costs decreased in the indemnity medical plan for mental health/AOD dependency treatment by 51 percent. The following factors contributed to this saving: reducing admission rates for psychiatric treatment by 50 percent, reducing admission rates for AOD treatment by 29 percent, reducing the average length of stay for psychiatric conditions by 47 percent, providing access to treatment for these diagnoses for employees and dependents who were enrolled in HMOs for an additional per capita cost, and achieving significant reductions in charges through negotiated payments and a preferred provider panel. This pilot program showed substantial savings and indications of employee acceptance, although no data are available on quality of care or outcomes.

Campbell Soup Company (Yandrick 1992) released data on its pilot program of integrated EAP and managed care. Based on the pilot data, the program has been expanded to all of Campbell's 50,000 employees and dependents at more than 40 locations. The new program includes administrative oversight and supervisory training (handled internally by the EAP staff), quality care (handled by an external EAP staffer), and data collection and analysis (handled by the external provider). The results of the pilot program indicated a 1-year reduction of 28 percent in mental health care costs at the three plants where it was implemented, compared with 20 percent average annual increases between 1987 and 1990. Mental health costs were reduced from $261 to $188 per employee per year. The percentage of total costs for mental health services decreased from 11.5 percent to 6.7 percent. In addition, workers' compensation reportable accidents among EAP clients were reduced by 19 percent, while a control group of non-EAP employees had a slight increase in reportable accidents. While the pilot data do not indicate quality of care or outcomes, employee surveys indicate high levels of satisfaction with the integrated program.

An examination of EAP data from the **Orange County, Florida, Public Schools** indicates that cost-offset studies can be performed for smaller employers who have access to pertinent personnel and medical information (Yandrick 1992). This study included a group of 125 EAP clients—25 selected from each of 5 years of EAP use (1986–90)—and a comparison group of employees who were not users of EAP services, matched on demographic factors and insurance coverage. EAP users' medical claims costs were high-

er, on average, for the pre-EAP year and declined for each year after EAP use. Employees who used the EAP had, on average, higher claims for the first year after EAP intervention, but the average cost for EAP clients dropped below the comparison group average by 1 year after intervention. The cost reduction from the pre-EAP year compared with 5 years later was more than 3:1. EAP clients took an average of 10 percent more sick leave than the district average in the year before their EAP use; after EAP use the clients took less sick leave than the comparison group. By the sixth year after EAP use, the average sick leave use was 26 percent lower than the district average. A management information system (MIS) was developed for the Orange County schools that enables the EAP to monitor its impact and assess program needs.

On the basis of an analysis of these data, the EAP has offered more program outreach and promotion. It also has added stress management services to departments in which salaries tend to be lower, and in which the MIS indicated that employees were less likely to accept EAP assistance but had higher rates of AOD dependency, stress, and family problems. The data management system was used to assess stress points and to provide organizational and individual prevention and intervention activities.

A 1990 study of **Virginia Power's** EAP compared medical claims data for 4 years (1985–89) before an individual's entry into treatment and for 4 years after treatment. The data showed a 23 percent lower claims rate for individuals who accessed the EAP compared with those who accessed

behavioral health benefits on their own (Yandrick 1992). There was a greater drop in nonbehavioral-related medical costs (34 percent) than in behavioral-related medical costs (17 percent). This study also reports that early intervention in AOD abuse is crucial to save money and avoid human suffering. The results of this study have encouraged the EAP to use absence records to try to identify AOD abusers earlier and have helped management see the value of refresher training about the EAP for first-level supervisors. Dissemination of information about EAP services has also been increased to encourage program use by employee dependents.

Other data released to the EAPA from **Procter and Gamble-Oxnard** indicate an increased treatment cost of 245 percent per inpatient mental health/AOD dependency case between 1986 and 1987 and another 302 percent increased cost per case between 1987 and 1988, under circumstances in which there were no controls in the behavioral health benefits plan (Yandrick 1992). There was no gatekeeper, case management, or family involvement in treatment. An EAP-driven managed care system was developed with a carve-out that gave all covered employees the same benefits coverage for behavioral health-related care regardless of the medical plan in which they were enrolled. The EAP was designated as the gateway to community resources and access to behavioral health benefits. A quality care manager was responsible for case management, set goals with providers, and approved all bills for payment. The program focus was changed to emphasize early intervention and family participation in treatment.

An unpublished study has been made available to the authors through **Personal Performance Consultants** (PPC), an external EAP provider organization. It reports findings similar to those of the above studies (Davis 1993). Through a financial incentive, **NCR Corporation** encouraged employees and dependents to access the EAP before seeking mental health or AOD abuse treatment. A system was designed to encourage early intervention in order to address problems before they required intensive care, and participants were assured that they would be matched to a level of care that was appropriate for their level of need. After 1 year, 80 percent of the cases were resolved without using health care benefits. The average admission charge among EAP cases who were referred to inpatient treatment was nearly 50 percent less than for those who accessed treatment without using the EAP. NCR estimated that an additional inpatient saving of almost $2 million would have been generated if all clients who accessed mental health/AOD dependency treatment had been channeled through the EAP.

In another PPC-related effort, **Crestar Bank** documented the results of a 12-month study measuring the impact of an EAP on benefits use and costs by comparing those who accessed care through the EAP with those who accessed care without using the EAP (Davis 1993). The average psychiatric costs were 58 percent less for EAP participants compared with those who did not use the EAP. EAP participants had an average of 8.8 sessions compared with 13.1 sessions for the non-EAP group. The average cost of $45 per session resulted in a saving of $193.50 per outpatient

case. The EAP group had no spouses or dependents who incurred health care claims; in the non-EAP group 53 percent of the covered charges were incurred by spouses and dependents.

Walsh et al. (1991) compared 227 alcoholic employees who were EAP clients and were randomly assigned to one of three conditions: inpatient treatment followed by attendance at Alcoholics Anonymous (AA) meetings, AA only, and a "choice group," in which the client determined the treatment plan in consultation with the EAP staff. Clients were kept in their initial assignment category for data analysis even if they were shifted into different treatment options.

The clients were seen weekly by the EAP for 1 year after their initial treatment and were followed by the research team for 2 years. All three groups showed significant improvement in job measures compared with their pretreatment levels (Walsh et al. 1992). The number of hours missed from work dropped by more than a third between the 6 months before EAP use and the last 6 months of the 2-year follow-up period. The improvements in job performance were the result of a combination of treatment effects, follow-up counseling, and EAP monitoring. The similarity of job performance improvements across the three treatments indicates that long-term support and monitoring by the EAP might be more important than the specific treatment modality. However, clients who were referred to inpatient treatment showed significantly higher rates of sobriety. Sixty-three percent of the AA-only group were subsequently hospitalized

for alcoholism treatment, compared with 23 percent of the hospital group who were rehospitalized and 38 percent of the choice group, some of whom were rehospitalized and some of whom entered formal treatment for the first time. By the end of the study, treatment costs were only about 10 percent lower for AA-only groups than for the hospital group. Overall, when these data are compared with treatment evaluations among general populations of alcoholics, they strongly support EAP efficacy.

New data show that EAP involvement in the continuum of care is associated with outcomes that are remarkably more positive than those reported in typical treatment studies. A recent study (**McLellan et al.** 1993) compared patient populations, treatment services provided, and 6-month outcomes for employed, insured patients who were referred by an EAP to one of two outpatient or two inpatient private treatment programs. While the subjects were not randomly assigned to the treatment programs, comparisons among programs and between settings yielded very few significant differences that could account for the variations in outcome measures. All persons in the study worked for one employer and were alcohol- and/or cocaine-dependent males. The results of the study indicated significant and pervasive improvements in the total sample at follow-up, with 59 percent abstinent from alcohol and 84 percent abstinent from all other drugs. Eighty-two percent were still working. These results are based on the 94 percent of the employees who were successfully contacted by the research project at 6 months follow-up and who provided urinalysis and breathalyzer samples.

This study also showed significant differences among the treatment programs in level of improvement as measured by the Alcohol Severity Index (McLellan et al. 1985, McLellan et al. 1992), with differences in efficacy related to differences in the nature and amount of treatment services provided. Overall, the sample showed substantial change, with reductions of 74 percent in alcohol use and 73 percent in other drug use, a 27 percent improvement in the medical area, a 12 percent improvement in the employment area, and a 39 percent improvement in psychiatric status. Outcome measures varied across the four treatment programs, however. Differences were measured between the inpatient and outpatient programs on some of the indicators of improvement, with one of the outpatient settings generally showing less improvement than the other three settings.

Even though standards for EAPs are available, designs vary to accommodate differences in organizational size, structure, employee demography, methods of dealing with variations in employee performance, benefits packages, and supervisor training and authority. While there is a core technology to EAPs, they are not generic across worksites, as there is no enforcement of appropriate use of the EAP designation. What is evident from the many studies cited is that EAPs can be and often are efficient in dealing with AOD and other employee and dependent problems. Organizations vary, EAPs vary, and client problems and the potential for their prevention vary. Despite design problems apparent in the reviewed studies, EAP effectiveness is definitely indicated. Of course, the changes cannot be attributed solely to EAP intervention; no doubt other dynamics—on the

job, in the employees' personal relationships, and in the community—are also at work. However, the accumulation of evidence across time and across many different workplaces indicates a consistent trend of data of great variety that confirm the cost-effectiveness of EAPs.

Drug-Free Workplace Program

In addition to the studies cited above, **Marsh and McLennan Companies** (1994) report anecdotal evidence of savings believed to be achieved by businesses through drug-free workplace programs that include EAPs. While this evidence may not be scientific, it is still important information. In light of the lack of evidence, scientific or otherwise, that there are unintended *negative* consequences of EAPs, beliefs about the efficacy of programs may be more important for some purposes and constituencies than scientific evidence. Further, just because the studies are not validated by scientific criteria does not mean that the beliefs would not stand up to that scrutiny.

The anecdotal evidence reported by Marsh and McLennan includes a reduction in on-the-job accidents and lost time as a result of such accidents at Tropicana; an estimated $1,750 saving per employee at Warner Corporation because of lower recruitment and training costs, lower workers' compensation costs, and fewer on-the-job accidents; a 75 percent reduction in in-hospital AOD abuse treatment costs after EAP implementation at Gillette Company; and a reduction in absenteeism and workers' compensation insurance costs at Sawyer Gas Company and at Oregon Steel Mills.

The report also cites a survey of 50 companies that credit their EAPs with a 21 percent reduction in absenteeism, a 17 percent reduction in on-the-job accidents, and a 14 percent increase in productivity.

Thus there are a variety of published and unpublished studies, conducted with different methodologies, that indicate the cost-effectiveness of EAPs. The data are particularly strong with regard to EAPs' AOD caseloads. While it is possible that there are unpublished studies that indicate smaller effects of EAPs in terms of cost-effectiveness, it is difficult to see how such data could discredit the EAP concept.

4 Long-Term Support and Follow-Up

Recovery from AOD dependency should be viewed as a process rather than an event; thus it is useful to examine the efficacy of long-term support or follow-up of clients with AOD abuse problems. **Foote and Erfurt** (1991) examined the effects in one company of follow-up provided by a specially hired EAP counselor. All AOD abuse clients who entered the EAP in 1985 were randomized into a group of 161 who received the usual care given to EAP clients and a group of 164 who received additional follow-up. After a year the extra follow-up group had 15 percent fewer hospitalizations for treatment of AOD abuse and a 24 percent reduction in AOD abuse–related benefit claims than the control group. Multivariate analyses controlling for race, age, problem severity, and number of follow-up visits indicated that placement in the extra follow-up group was associated with reductions in AOD abuse disability, reductions in AOD abuse treatment costs, and fewer incidences of relapse requiring hospitalization. Extra follow-up had no effect on absenteeism or health benefit claims, other than a reduction in claims for treatment. The 1-year follow-up period is probably insufficient to see the cost offsets in medical claims (Holder et al. 1992, **Smith and Mahoney** 1989). While this study indicates the importance of follow-up for EAP clients, the potential impact of follow-up may be underestimated because unanticipated problems in the study resulted in the experimental group receiving less than the amount of follow-up that was called for in the research design.

Two studies conducted at **General Dynamics** and reported to the EAPA (Yandrick 1992) tested the value of EAP tracking of treatment aftercare. A study conducted in 1989, covering the period from 3 months before to 3 months after EAP clients' treatment for AOD dependency, indicated that aftercare participation was a significant predictor of long-term positive treatment outcome. Three months after treatment, 50 percent of the employees who did not attend aftercare had been terminated from employment. Absenteeism dropped 18 percent for the quarter after treatment for those who attended aftercare compared with a 118 percent increase in absences for those who did not. A second study, conducted in 1990–91, confirmed these results over a 6-month pre-treatment and 6-month post-treatment period. All those who attended aftercare were still employed 6 months after treatment. Again, absenteeism decreased for those who attended aftercare and increased for those who did not.

A study of EAP clients at **American Airlines** (Saylor 1993) addressed the belief that alcoholics and other drug addicts inevitably relapse, regardless of the nature and quality of treatment services they receive. The belief that long-term recovery is relatively rare and thus warrants the least costly treatment was refuted by data collected about EAP clients at American Airlines. The American Airlines EAP has complete gatekeeper authority over AOD dependency treatment. In addition to traditional EAP functions, the staff is empowered to authorize treatment and determine the length of treatment, perform concurrent review, conduct back-to-work sessions, and monitor employees after their return to work.

All employees and dependents, including those who have health coverage through HMOs, have access to a once-per-lifetime rehabilitation benefit if they contact the EAP and accept referral to an agency within the EAP network of providers. The EAP provides for accurate follow-up records on 100 percent of the employees treated, using daily reminders coordinated through an interactive voice response system and regular contacts with EAP staff.

Of the 314 employees treated for alcoholism or other drug addiction in 1990, 84.4 percent did not relapse by the end of the first year. By 1991, 255 of the employees were still employed by American Airlines; 88 percent of the alcoholics were not drinking, and 83 percent of the non-cocaine-using drug addicts and 67 percent of the cocaine-using employees had not relapsed. The average cost for 480 AOD-dependent employees or dependents treated in 1991 (half of whom were authorized for inpatient treatment for 25 to 30 days) was $4,843, which is less than the typical cost of two detox treatments or of outpatient treatment (Saylor 1993). An important concern raised in the American Airlines report is that more and more rehabilitation centers are closing (Bennett et al. 1993) or shortening stays, which limits the EAP's ability to match employees with treatment services that are close to their homes.

5 Supervisory Training and Impact

Another aspect of EAPs that varies across programs and that may contribute to differences in outcomes is supervisory training. Supervisory training allows for prevention as well as early intervention. Schneider and Colan found that supervisors who received systematic training made significantly more EAP referrals, including referrals of employees who had AOD problems, compared with a control group of supervisors who did not receive training (Schneider and Colan 1992, Colan and Schneider 1992).

Another study of EAP use among almost 2,000 managers and supervisors at various locations of one major corporation (Milne et al. 1994) indicates that knowledge about the EAP is an important predictor of use. The cognitive components (whether there is support for the EAP among their superordinates and whether they know how to access the EAP) have indirect effects on the likelihood that these managers and supervisors will use the EAP; the affective components (whether the managers have confidence in the program) also make a difference. These data also indicate the willingness of supervisors and managers to participate in EAP training programs. In a presentation of data collected in 1993 from managers in many locations of a variety of corporations, it is apparent that managers, even those in worksites that have established EAPs, desire training, as well as the availability of coaching, in implementing an EAP referral (Mangione 1994).

A study of sick leave taken a year before and a year after participation in an EAP compared two groups of clients with alcohol problems employed by the **City of Los Angeles Department of Water and Power** (Amaral and Cross 1988). The study compared a group of mandatory or formal supervisory referrals with a group of voluntary or informal supervisory, self-, or other referrals. In the year after EAP referral, the voluntary referrals had a 49 percent increase in sick leave compared with a 33 percent decrease for the mandatory referrals. As a result of these findings, changes were made in the EAP design that increased formal supervisory referrals from 22.1 percent to 27.1 percent in just 1 year with a concomitant 77 percent increase in the proportion of alcohol problems in the EAP caseload, from 17.6 percent to 31.2 percent. The savings in reduced sick leave for EAP clients that resulted from these changes was estimated at $349,763 for the 4 years between 1984 and 1988.

6 Findings on Early Intervention and Prevention in EAPs

EAPs can play important preventive roles with regard to alcohol and other drug problems. First, it is important to draw the distinction between problems and dependencies. If problematic life-style, adaptation, and stress management patterns are identified, AOD problems can be prevented. If problems are identified before they become embedded as adaptive behaviors, dependencies can be prevented. If family and psychiatric problems that are prodromal to AOD abuse problems and dependencies are identified and dealt with, primary prevention of AOD abuse may be achieved. Without employee assistance structures in work organizations, early stage or prodromal problems may not be identified. Indeed, self-guided help-seeking for problems that are prodromal to AOD abuse may exacerbate the problems. If the choices, and the accompanying treatment or advice, are inappropriate, the experience may actually encourage further development of AOD abuse problems. Unfortunately, the processes of prevention are difficult to document in the short run. Even over longer periods, it is hard to identify a particular program as the agent of prevention. It is important, however, even without experimental designs, to help AOD-abusing parents while they are still employed, at any stage in the progression of a problem of abuse. Such help is likely to go a long way in improving the quality of life of the children who live with them and may help to prevent AOD abuse among the children, who are future employees and consumers.

Recent Studies

Recently collected data describe the problems of employees in EAP caseloads, mainly alcohol problems and other problems that may be prodromal to AOD abuse and dependency. Blum and colleagues (1995) collected data from EAP administrators and employee clients at 84 worksites between 1990 and 1992. The worksites varied in terms of industry type, number of employees, and location. The researchers collected intake data from and about more than 6,400 employee clients, using two instruments. The EAP administrators completed a questionnaire for each client that included demographic information, referral categories, treatment history, clinical assessment, treatment regimen, and prognosis. The clients filled out a questionnaire when they made initial contact with the EAP about their job functions and performance, satisfaction with relationships, and the roles of people who were influential in their referral to the EAP. Each client also completed a CAGE screening instrument (Ewing 1984) and a short form of the Beck Depression Inventory (BDI) (Beck and Beck 1972). Employees who answered yes to one or more of the four CAGE items were also requested to complete an Alcohol Dependence Scale (ADS) (Horn et al. 1984).

The demographic characteristics of the employees in the EAP caseloads were quite diverse. A comparison of the demographics of the clients with a national sample of full-time working adults indicated that women (55 percent of the caseload) were overrepresented and Caucasians (70 percent) were underrepresented (Blum and Roman 1992).

African Americans made up 22 percent of the EAP caseloads in this study. Clients tended to be 2 to 3 years younger (average age=37) than the national sample, less likely to be married, and more likely to be separated or divorced. The education and job levels of the EAP clients and the national sample were similar. EAP clients had 2 to 3 years more tenure with their organizations than employees in the national sample.

Intervention for a presenting problem of clinical depression may uncover AOD problems or prevent the development of AOD problems or dependencies. The EAP clients' scores on the BDI indicated substantial depression: 16 percent scored in the severe depression category; 34 percent scored in the moderate category; 19 percent scored in the mild category; and 31 percent scored in the no or minimal depression category. Data collected among a general population sample (Oliver and Simmons 1984) indicated 4 percent with severe depression, 9 percent with moderate, 11 percent with mild, and 80 percent with no or minimal depression. There was substantial overlap in depression scores and AOD problems of EAP clients or family members: the average was 2.1 problems (family, legal, psychiatric, financial, etc.) per employee client, with women having more problems, on average, than men.

An affirmative response to two or more of the four CAGE items indicates the possibility of alcohol-related problems (Smart et al. 1991). In the national sample of employees, 9 percent answered yes to two or more of the items, while 19 percent of the EAP clients did so. In the EAP sample,

23.4 percent responded that they felt they should cut down on their drinking; 10.8 percent had been annoyed by others criticizing their drinking; 19.8 percent had felt bad or guilty about their drinking; and 6.7 percent had had a drink as an eye-opener to steady their nerves or get rid of a hangover. While the CAGE is a screening instrument and uses "ever" as the time period, 91 percent of those who scored two or more on the CAGE indicated at least minimal dependence in the previous 6 months, according to the ADS.

This data distribution indicates that employees who use EAPs for reasons other than AOD problems would benefit from preventive activities regarding AOD abuse; however, EAP caseloads are usually made up of relatively early-stage problems. Twenty percent of the EAP caseload score in the low, moderate, substantial, and severe dependence categories of the ADS, but most of them (78 percent) are in the low dependence category (15 percent are in the moderate dependence category, 6 percent are in the substantial dependence category, and less than 1 percent are in the severe category).

Cultural Concerns

It is important to note that racial bias does not appear in the referral of EAP clients (Blum and Roman 1992, Blum et al. 1995). This is particularly important because studies of drug testing have indicated that the burden of drug testing and exclusion from employment because of positive test results falls more heavily on African Americans than on Caucasians (Blum et al. 1992*a*, Normand and Salyards 1989, Roman

and Blum 1992). Even though the adverse effect of drug testing on African Americans does not reach a level suggesting illegal discrimination in the published studies, ethical and societal concerns remain; they are particularly important considerations for an integrated prevention blueprint.

Employee Satisfaction

The extent to which employees who are referred to EAPs are still functioning in their work groups at the time of referral is an important evaluative consideration. Overall, more than 70 percent of those with alcohol problems (including those with comorbidity of psychiatric problems or other drug-related problems) were still employed 18 to 24 months after EAP intake. Further, it is interesting to note that the vast majority (75 percent) of EAP clients reported that they were at least somewhat satisfied with their relationship with their supervisor at the time they contacted the EAP. This satisfaction is apparent even among those who were formally referred by their supervisors (69 percent) and those who were informal supervisory referrals (86 percent). Thus the concept of EAP referral as conflictual and coercive is not supported by these data, suggesting a more "gentle" early intervention with excessive AOD users, by both supervisors and EAP staff, which may prevent further AOD-related problems.

The national data set with which the above EAP client data were compared provides an interesting picture of EAP prevalence and employee satisfaction with EAPs (Blum et al. 1992*a*). These data were collected during summer 1991.

The response rate was 63 percent, yielding 3,001 full-time, non-self-employed adults. These data indicate that 45 percent of full-time employees who are not self-employed work for employers who provide some form of EAP. Of supervisors who had access to an EAP, 15 percent had contacted the EAP in the past about an employee they supervised. Supervisors who used the EAP for a subordinate tended to be satisfied with the experience: 43 percent said that the EAP was very helpful; 42 percent said it was somewhat helpful; 8 percent said it was of little help; and 7 percent said it was not at all helpful. Of the employees who work for an employer with an EAP, 45 percent reported that they know someone at work who had used the EAP. Of these, 44 percent said the EAP was very helpful to their coworker; 42 percent said it was somewhat helpful; 8 percent said it was a little helpful; and 5 percent said it was not at all helpful.

In the employee reports of EAP use, 8 percent of those covered by an EAP had used it for a problem of their own and 5.5 percent had used it for a family member's problem. While there is some overlap in EAP use for subordinates, coworkers, self, and family members, a large proportion used the EAP for only one of the categories.

These national survey data, as well as the EAP client data set, indicate substantial client satisfaction with the EAP. The combination of substantial use of the EAP (cf. Milne et al. 1994) among employees and their satisfaction with it positions the EAP for earlier interventions and for effective prevention activities.

7 Conclusion

In this report we have considered what the appropriate role of EAPs might be, with attention to their contributions to the prevention of AOD and mental health problems, especially alcoholism and other drug dependence. We examined numerous studies that consistently demonstrate the cost-effectiveness of EAPs. We also considered the EAP's often-neglected contribution to cost-effectiveness through prevention. We researched the effectiveness of EAPs in relation to individuals with behaviors prodromal to alcoholism and other drug addiction. We observed the preventive contributions of EAPs—through workplace education, skills development, and policy and environmental changes.

EAPs are important components of comprehensive worksite AOD abuse prevention programs. Their effectiveness can be demonstrated in reducing chronic heavy drinking as the focus of socializing and recreation, and in providing increased social support and respect for the recovering alcoholic and other drug-dependent coworker. Stemming indirectly from the EAP's presence and impact, employers, employees, and the family and community at large can become more thoughtful, reasonable, and careful about the use and abuse of alcohol and other drugs.

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