

THE PREVALENCE AND DISTRIBUTION OF EMPLOYEE SUBSTANCE-RELATED PROBLEMS AND PROGRAMS IN THE ISRAELI WORKPLACE

PETER BAMBERGER, MICHAL BIRON

We used a national sample of 100 Israeli enterprises to examine the prevalence and distribution of employee substance-related workplace problems, as well as the prevalence and distribution of alternative programs/policies aimed at addressing such problems among Israeli workplaces. Although 29% of the responding firms reported having handled one or more cases involving employee workplace substance use or impairment, across these firms, only 53 actual cases were reported. Given an average enterprise size of 325 employees, this suggests a workforce prevalence rate for such problems of 0.16%. Only 10% of the enterprises studied offered any type of substance-related employee assistance, and only 12% included a specific reference to substance use in their discipline policy. The social policy and workplace implications of these findings are discussed.

There is increasing evidence that employee substance use and impairment, long a concern in the United States (Sonnenstuhl, 1996), is becoming of increasing concern to employers and policy makers in other countries (Dalén et al., 2000; Verstraete & Pierce, 2001). Moreover, in light of productivity and safety considerations, employers and policy makers in many of these countries appear to be increasingly turning to drug testing as a central means by which to confront this problem (Shahandeh & Caborn, 2003). For example, one recent survey in the U.K. found a widespread perception among employers that employee workplace substance use and impairment has increased and is a significant source of problems for their firms (Chartered

Peter A. Bamberger, Ph.D., is an associate professor at the Faculty of Industrial Engineering and Management, Technion- Israel Institute for Technology; a senior research scholar at the New York State School of Industrial and Labor Relations, Cornell University; and the research coordinator of the Smithers Institute for Alcohol-Related Workplace Studies. Current interests include peer relation in the workplace and employee well-being. **Michal Biron** is a Ph.D. student at the Faculty of Industrial Engineering and Management, Technion- Israel Institute for Technology. Her research interests include human resource management in service organizations and employee misbehaviors.

Management Institute, 2003). Another U.K. study found that while only 4% of firms currently conduct employee drug testing, a further 9% were planning to introduce testing in the coming year—a trebling of the proportion of businesses conducting tests in a single 12 month period (Evans, 2004, p. 37). Similarly, with 50% of Finns supporting workplace drug testing, and pro-testing legislation recently submitted to the Finnish parliament, 10% of Finnish companies are reportedly considering the adoption of workplace drug testing (Verstraete & Pierce, 2001). Finally, at a recent government-sponsored symposium on substance abuse in Israel, the workplace was targeted as the focus of attention for Israel's war on drugs in 2005 with employee drug testing mentioned as one possible intervention strategy (Israel Anti-Drug Authority, 2004; Tzweig, 2004). Indeed, Israel's leading daily newspaper recently reported that legislation is currently being drafted to allow employers to conduct pre-employment drug screening ("New Law," 2005).

However, the extent to which such concerns or interventions are grounded on actual increased employer experience with employee workplace substance use and impairment (as opposed to institutional forces such as the demands of American customers or pressure from firms or institutions with vested interests in employee drug testing) is equivocal (Evans, 2004; Frone, 2005). On the one hand, national surveys in the United States and other countries indicate a relatively high workforce prevalence of alcohol and illicit drug use. For example, in the United States, among employed adults (ages 18 to 49) working full time, 78% have used alcohol, 9% have used marijuana, and 5% have used other illicit drugs during the preceding 12 months (Frone, 2004, p. 128). Prevalence rates in the U.S. are somewhat diminished when the period of analysis is the past 30 days (e.g., 64% used alcohol, 5% used marijuana; Frone, 2004). The total annual employment-related costs of alcohol and drug abuse in 1992 were approximately \$81 billion (the vast majority, \$66.7 billion, due to alcohol abuse) (Harwood, Fountain, & Livermore, 1998). Globally, the International Labor Organization estimates that 3.5% of the employed population is dependent on alcohol and that up to 25% are at risk of becoming dependent, with the total costs of alcohol misuse alone in the UK and the Netherlands estimated at £ 2 billion and € 240 million, respectively (European Commission, 2003).

On the other hand, such data say little about employee substance use or impairment during the workday or at the workplace or its economic impact on employers (Frone, 2004). In terms of actual workplace use or impairment, Frone's (2005) estimates indicate prevalence rates far lower than those suggested by the workforce figures noted above (e.g., less than 2% prevalence of one or more periods of alcohol impairment on the job in the past year). In terms of economic impact, many of the employment-related costs noted above are likely borne by the employee rather than the employer (National Institute on Drug Abuse [NIDA], 1992).

Moreover, at least two reviews of the literature (Frone, 2004; Normand, Lempert, & O'Brien, 1994) suggest that aside from a link between employee substance use and absenteeism, there is little evidence that substance abuse is a consistent or robust determinant of other workplace outcomes such as accidents, task performance, and counterproductive behaviors. Finally, a number of recent studies suggest that employer and policy maker concerns may have a strong institutional basis (Frone, 2004; Evans, 2004). For example, the Independent Inquiry into Drug Testing at Work found that several UK companies adopted drug testing in order to comply with contractual provisions demanded by their American customers while others may have been influenced by the inflated (and in one case, completely unsubstantiated) claims of the impact of drug-testing companies regarding the link between drug abuse and employee task performance (Evans 2004, p. 42). Similarly, in their study of the factors leading to the widespread adoption of drug testing and workplace substance-related programs in the United States, Spell and Blum (in press) suggest that institutional pressures such as positive media discourse and the tendency of firms to mimic the actions of their industry and labor market competitors had far more to do with the adoption of such programs than did the actual perception of employee drug problems.

Ultimately, the legitimacy of employer and policy maker concerns over as well as their resource-allocation decisions regarding employee substance use and abuse as a threat to productivity and economic competitiveness would appear to largely rest on (a) the extent to which employee substance use and impairment actually manifests itself in the workplace (as opposed to the workforce) and (b) the prevalence and nature of workplace substance-related policies and programs already in place. Unfortunately, however, data regarding the prevalence and distribution of substance-related workplace problems are rare, inconsistent, and largely limited to the United States (Frone, 2005). For example, Newcomb (1994) identified only eight studies examining the prevalence of alcohol use at work and 15 examining the prevalence of illicit drug use at work, all of which were conducted in the United States with prevalence rates ranging from 1.6% to 29% for alcohol and from 1% to 27% for drugs (partially dependent upon gender and type of drug). Similarly, data regarding the prevalence and distribution of alternative workplace policies and programs aimed at addressing employee substance-related problems (no less their efficacy) are also quite rare and are largely limited to United States (French, Zarkin, Bray, & Hartwell, 1997; Rothstein, 1991; Verstraete & Pierce, 2001). As a result, in many countries, policy debates over how to best confront the problem of employee substance-related problems in the workplace are often conducted in the absence of reliable and relevant scientific data.

The current study examines the prevalence and distribution of both employee substance-related problems in the workplace and the policies and programs adopted by management to address such problems in one of the countries in which such a policy debate is beginning to surface, namely Israel. In examining the prevalence and distribution of employee workplace substance-related problems, we base our analysis on the assumption that managerial attention provides a strong indication that the employee's substance-related behavior is adversely affecting job performance (Sonnenstuhl & Trice, 1990). Consequently, our interest is in the prevalence and distribution of those cases in which the particular workplace problem was deemed by management to be both substance-related and severe enough to warrant managerial attention. In examining the prevalence and distribution of worksite substance-related policies and programs, our analysis focuses on interventions aimed at achieving one or more of the primary intervention objectives, namely screening, deterrence, and rehabilitation. Although our analysis is limited to only one country, it is significant in that it represents one of the first attempts to document the prevalence and distribution of employee substance use and impairment in the workplace outside of the United States and the way in which employers overseas are currently attempting to address such problems.

THE PREVALENCE AND DISTRIBUTION OF SUBSTANCE-RELATED WORKPLACE PROBLEMS IN ISRAEL

Israel provides an excellent empirical context for examining the prevalence of employee substance-related workplace problems in that the available national data present a very mixed picture as to the possible magnitude of the problem. On the one hand, workforce data suggest that the magnitude of the problem in the Israeli workplace may be similar to that in the U.S. and many European nations. Specifically, recent data published by the Israel Anti-Drug Authority (IADA) indicates that approximately 70% and 11% of agricultural, manufacturing, clerical, and administrative workforce used alcohol and illicit drugs (respectively) at least once during the past year (IADA, 2002). On the other hand, Israel has traditionally had one of the lowest rates of alcohol consumption and alcohol problems in the world (Bamberger & Barhom-Kidron, 1998; Rahav, Hasin, & Paykin, 1999), and the proportion of employees with chronic and heavy patterns of drug abuse is estimated as being essentially marginal (IADA, 2002), suggesting, as Frone (2005) finds for the United States, a relatively low rate of on-site use and/or impairment during the past year.

Turning to the distribution of employee substance-related workplace problems, the available data (IADA, 2002) provide a breakdown in workforce prevalence by general employment sector only. These data indicate that, prevalence of substance use (defined in terms of use at least one time in the past year) does not significantly

vary by employment sector. Alcohol use was slightly more prevalent among those employed in the agricultural/ manufacturing sector (71.8%) than among those employed in the clerical/service and administrative/ managerial sectors (68.4%), whereas illicit drug use was slightly more prevalent among those employed in the clerical/service sector (12.2%) than among those employed in the remaining two sectors (approximately 11% in both).

While the available Israeli workforce data provide little information as to how employee substance-related problems may be distributed across Israeli workplaces, Israeli population data as well as the results of worksite studies conducted outside of Israel point to a number of industry and enterprise factors that might be associated with the distribution of such problems across Israeli workplaces. For example, a number of studies suggest that employee substance-related problems in other countries systematically vary across industries with problems more prevalent in some industries (e.g., manufacturing) than others (services) (Shahandeh, 1985; Stinson, Debakey, & Steffens, 1992). Furthermore, given the high proportion of Muslim-Arab workers employed in the Israeli construction sector (and the fact that alcohol consumption is prohibited in Islam) (Weiss & Moore, 1992), it is likely that there are fewer alcohol-related problems in Israel's construction industry than in its other economic sectors such as manufacturing.

Other studies suggest that the variance in the prevalence of such problems across firms may be explained by the proportion of employees having emigrated from countries with higher per capita rates of alcohol consumption (Rahav, Hasin, & Paykin, 1999; Sulkinen, 1976). Indeed, IADA data (2002) indicate that immigrants' (the vast majority being from the former USSR) use of alcohol and illicit drugs was significantly greater than that of individuals born in Israel (for alcohol, 80% versus 63%; for illicit drugs, 13% versus 10%; immigrants and native-born, respectively). This would suggest that, in the Israeli case, firms employing a greater proportion of émigrés from the former USSR might have a higher incidence of substance-related problems attracting managerial attention than firms employing a smaller proportion of such individuals.

Additionally, given that both in the USA and Israel, heavy substance use and substance-related problems tend to be more prevalent among men than women (IADA, 2002; Kessler, McGonagle, & Zhao, 1994), the variance in the prevalence of manager-recognized substance-related problems across firms may be a function of the particular organization's gender composition. Indeed, Frone (2005) found gender to be significantly associated with American employees' substance use and impairment at work.

It is also logical to assume a positive association between organizational size and union status on the one hand, and the likelihood that an organization will

face employee substance-related problems severe enough to warrant managerial attention on the other. With regard to organizational size, given a set prevalence rate in the society as a whole, the probability of employing at least one employee with a substance-related problem rises as a function of the number of individuals employed (McDonald, Wells, & Fry, 1993; Substance Abuse and Mental Health Services Administration, 2004). With regard to union status, although it has been noted that some American unions take action to assist employees with substance-related problems before these problems affect job performance or come to the attention of management (Bacharach, Bamberger, & Sonnenstuhl, 1996), Knowles and Riccucci (2001) argue that, in general, unions increase the prevalence of such problems because they make it more difficult for management to deter workplace substance-related problems by disciplining employees with substance-related problems and enforcing drug free workplace policies.

Taken as a whole, the discussion above suggests that the distribution of employee substance-related workplace problems will be associated with a variety of workforce, industry, and enterprise characteristics as follows:

Hypothesis 1: The prevalence of employee substance-related workplace problems will be higher in organizations (a) engaged in manufacturing (relative to construction and other sectors), (b) with a workforce including a higher proportion of émigrés from the former USSR, (c) with a workforce including a higher proportion of males, (d) with a large number of employees, and (e) with a unionized workforce.

EMPLOYER RESPONSES TO EMPLOYEE SUBSTANCE-RELATED PROBLEMS IN ISRAEL

Given the cost implications of employee workplace substance use and impairment to employers and the economy as a whole (Bellegris, 1996), managers and policy makers have long searched for ways to address this issue (Bacharach, Bamberger, & Sonnenstuhl, 2001; Harris & Heft, 1992). Motivated by both productivity and institutional pressures, employers in many Western countries have adopted policies aimed at generating an "alcohol- and drug-free workplace," as well as programs aimed at achieving the same outcomes by screening out substance-using job candidates, disciplining and even discharging job incumbents using substances on the job or coming to work impaired, or by offering such job incumbents assistance and rehabilitation services (International Labor Organization, 1996). While the first two methods (screening and deterrence) suggest a discipline-oriented approach, the latter (i.e., assistance and rehabilitation) suggest a rehabilitative approach to dealing with substance-related problems.

DISCIPLINARY APPROACHES

Traditionally, employers in the United States and elsewhere have relied upon the specification of substance-related shop rules and the use of discipline (including discharge) as the primary means by which to control employee substance-related problems (Harris & Fennell, 1989; Jackson & Schuler, 1995). Particularly since the passage of the Drug Free Workplace Act (1988), American companies have supplemented such deterrence-oriented, disciplinary policies with workplace drug testing including pre-employment testing, as well as random or for-cause/post-accident testing of current employees. Although in the United States, drug and alcohol testing is federally mandated only for certain industries (e.g., transportation), many employers in nonregulated sectors voluntarily choose to conduct such tests in the hope that by doing so, they may avoid more costly employee substance-related problems (Spell & Blum, in press).

The relative benefits of discipline-oriented substance-related policies and programs are widely disputed. On the one hand, a number of studies suggest that employee substance-related workplace problems may be associated with either the absence of a workplace substance policy or the lack of policy enforcement. For example, Bamberger and Donahue's (1999) findings suggest that an employer's failure to respond to suspected employee workplace substance use or impairment or responses that are interpreted by other employees as being "weak" (e.g., giving a warning and allowing the employee to "sleep it off"; giving troubled workers a "last chance") may result in the encouragement of permissive substance-related workplace norms. Such norms were found by a number of researchers to be a primary determinant of employee substance-related problems in American enterprises (Bacharach, Bamberger, & Sonnenstuhl, 2002; Bamberger & Donahue, 1999). Moreover, the continued employment of workers with substance-related problems may incur significant costs given the significantly higher rates of absenteeism among such employees (Frone, 2004) and given that supervisors spend a disproportionate amount of their time managing such employees and handling the problems (e.g., aggressive behavior, unsafe work behaviors, understaffing) such employees can create in their work units (Mangione, Howland, & Lee, 1998; Trice & Roman, 1972). Finally, with regard to employee drug testing, claiming a causal link between substance use and work accidents and injuries, advocates of such an approach (e.g., Nadell, 2001) argue that the immediate termination of a substance-using employee (or the screening out of a substance-using job candidate) may save lives.

On the other hand, a number of studies suggest that substance-related policies and programs based strictly upon discipline and strict rule enforcement run the risk of pushing employee substance-related problems underground and encouraging employee cover-up behavior (Bacharach et al., 2002; Mannello & Seaman, 1979).

Others argue that such disciplinary approaches may encourage employees to simply pretend that they have sought help and have resolved the problem when in fact they have not (Goff, 1994). Finally, there is evidence that the costs of one particular disciplinary tool, namely employee drug testing, may far exceed the benefits. Indeed, while the direct and indirect costs of testing often exceed \$100 per employee (Rothstein, 1991), the evidence underlying assertions of testing benefits (such as saving lives) may be suspect (Normand, 1994), particularly since "past research has failed to show that alcohol and drug use is a consistent and robust predictor of workplace accidents and injuries" (Frone, 2004, p. 132).

REHABILITATIVE APPROACHES

Perhaps as a result of the questionable efficacy of substance-related policies based strictly on discipline and deterrence, over the past 50 years, employers in the U.S. and elsewhere have also increasingly adopted a rehabilitative (i.e., treatment) approach. This rehabilitative approach is based on the notion that, the cost-to-benefit ratio of firing and replacing a troubled employee may often be greater than that of remedying his/her addiction and bringing them back to work (Blum & Roman, 1989). Such a rehabilitative approach is most widely manifested in the form of Employee Assistance Programs or EAPs. EAPs are formal job based intervention systems that (a) identify organizational members with any of a wide range of problems that may affect their work-related behavior, (b) motivate them to resolve the problem, and (c) provide them with convenient access to counseling or treatment (Blum & Roman, 1989; Sonnenstuhl & Trice, 1990). As noted by Blum, Fields, Milne, and Spell (1992), in the U.S., rather than replacing drug-testing programs, EAPs tend to supplement such programs and blend an element of rehabilitation into a generally discipline-oriented approach.

EAPs can take one of a number of alternative forms. For example, employees can be assisted within their organization or may be referred to external services. The program may be oriented towards assisting only those with substance-related problems or may be more "broad brush" in orientation, offering a wide variety of assistance services including psychological or social counseling for the troubled employee and his family, financial aid, and referral to alcohol or drug support groups (e.g., AA) (Hartwell, Steele, French, Potter, Rodman, & Zarkin, 1996; Hartwell, Steele, French, & Rodman, 1996; Shahandeh, 1985). Regardless of the program form, EAPs are structured around the notion of constructive confrontation (Engelhart, Robinson, & Carpenter, 1992). Accordingly, rather than taking immediate disciplinary action upon the presentation of solid evidence of employee substance-related problem, the EAP model calls for supervisors to refer employees with performance or attendance problems to the EAP, regardless of what the supervisor

believes lies behind such behavior (Sonnenstuhl & Trice, 1990). While the threat of discipline is used as a way of encouraging the troubled employee to seek help, disciplinary action is rarely taken as long as the employee is seen as cooperating with the EAP (Blum & Roman, 1989; Hogler, 1988).

In sum, while clearly specified substance-related policies and disciplinary-based practices are designed to deter workplace substance use and impairment and remove problem drinkers and drug users from the workplace, EAPs aim to retain and rehabilitate troubled employees (Bennett, Blum, & Roman, 1994). Few studies have reported on the relative prevalence of these two alternative forms of employer response outside of North America, and data regarding the prevalence of such employer interventions in most other countries are extremely limited. Consequently, as noted earlier, we sought to determine the extent to which programs and policies identified with either of these two mainstream approaches are used by Israeli enterprises when confronting employee SA problems.

We also sought to examine the distribution of these alternative modes of employer response to employee substance-related problems across workplaces. Israel provides an excellent empirical context for doing so in that its unique and changing mix of employment relations frameworks, combined with a legal environment essentially void of any reference to the rights and responsibilities of employees and employers in handling such matters (Tzweig, 2004), suggest the potential for a relatively high degree of variance in the way employee substance-related problems are addressed by employers. In terms of diverse employment relations frameworks, Israel has one of the highest levels of union density in the West (over 30%), with over 25% of the workforce employed by firms that, until a decade ago, were actually owned by the trade union movement (Harel, Tzafrir, & Bamberger, 2000). On the other hand, Israel's knowledge-based industry sector (almost completely nonunionized) now employs over 25% of the labor force, with many of the key employers being the local subsidiaries of major American corporations (Central Bureau of Statistics, 2004). Israeli law generally disallows any invasive or physical testing of employees. The only exceptions to this policy have to do with soldiers and drivers. According to Israeli military law (Israel Military Law, 1955), soldiers may be made subject to both pre-induction screening and post-induction random and for-cause testing, while according to the Israeli Transportation Regulations (1982), drivers may be required to submit to for-cause or post-accident testing if there is reason to suspect misuse or impairment. Still, legislation is currently being drafted to allow pre-employment drug screening.

Studies examining the adoption of alternative approaches to addressing workplace substance-related problems in the United States (e.g., Blum, Fields, Milne, & Spell, 1992; Spell & Blum, in press) provide a basis for identifying some of the enterprise

and workforce characteristics potentially associated with the adoption of one form of intervention or another. In the United States, enterprises with larger workforces and experiencing a greater number of cases of employee substance-related workplace problems have been found to be more likely to adopt a disciplinary or rehabilitative work-site policy or program (Spell & Blum, in press). Smaller firms may find drug testing and EAPs to be less cost effective due to limited economies of scale and may have more limited resources available for the adoption of such programs (Blum et al., 1992). Even where resources are available, based on resource dependence theory (Pfeffer & Salancik, 1978), these resources are only likely to be allocated to substance-related programs where this issue is viewed as posing a significant source of uncertainty for the firm (i.e., firms experiencing a greater number of substance-related cases).

Two additional enterprise characteristics, namely union status and American subsidiary status, may also be associated with the likelihood of employer adoption of workplace substance-related programs. Specifically, unions may discourage the adoption of workplace policies aimed at testing, disciplining and/or dismissing employees suspected of workplace substance use or impairment (Spell & Blum, in press) and may even discourage employee assistance services to the extent that they are viewed as either punitive or controlling (Bamberger & Sonnenstuhl, 1996). As for subsidiary status, given the high rate of program adoption among American firms (Hartwell, Steele, French, & Rodman, 1996) and the fact that many of these firms often attempt shape their "offshore" employment frameworks and organizational culture around the policies, practices, and cultural norms governing the management of their employees in the United States, it is likely that the probability of program adoption will be higher among Israeli enterprises that are subsidiaries of American firms.

Researchers have also examined workforce characteristics often associated with the prevalence of substance-related problems to serve as determinants of program adoption in the United States. For example, based on the link between gender and workplace use and impairment discussed earlier, Spell and Blum (in press) find that organizations with a predominantly male workforce are more likely to adopt substance-related programs. Such findings suggest that adoption may also be more likely in organizations employing a greater proportion of employees with other risk related demographic characteristics such as, in the case of Israel, immigrant status (i.e., increased likelihood of adoption among organizations employing a larger proportion of émigrés from the former USSR). Taken together, the discussion above suggests the following:

Hypothesis 2: The prevalence of employer programs addressing employee substance-related problems will be higher in organizations (a) employing a greater number of employees, (b) reporting one or more cases of employee substance-related problems in the past year, (c) whose workforce is not unionized, (d) owned by an American parent firm (i.e., American subsidiary) and (e) with a workforce including a higher proportion of males, and émigrés from the former USSR.

METHOD*SAMPLE AND PROCEDURE*

The data for this analysis was a representative sample of Israeli nonstate-owned enterprises with 100 or more full-time employees. Out of a total Israeli civilian labor force of 1,550,000 employees, approximately 850,000 (55%) were employed in such organizations in 2002 (Central Bureau of Statistics, 2004). Listed in the 2003 Israeli Dun and Bradstreet Market Database are 2672 such firms. From this target population, we drew a national probability sample of 300 enterprises, stratified by both industry and ownership structure to approximately match the distribution of enterprises across the Israeli economy. As such, 45% of the firms were traditional manufacturing enterprises, producing goods like food, plastics, or metal products; 12% were construction companies; 16% produced electronics and related goods; and 27% were service companies. In terms of ownership, 78% were privately held, and 22% were listed on either domestic or foreign stock exchanges. Of the 300 firms included in the sample, 106 responded (response rate = 35.3%). Of these, six had to be dropped due to incomplete data. We tested for a possible nonresponse bias in the demographic composition of the selected firms by comparing participating firms with those failing to participate along criteria for which data were publicly available—organizational size (i.e., number of employees), geographic location (i.e., periphery versus urban/suburban), industry (i.e., manufacturing versus other), and ownership structure (i.e., whether or not the organization was a subsidiary of a foreign company)—finding no statistically significant differences. However, this analysis cannot rule out possible nonresponse bias in the substantive outcome variables under investigation.

Nevertheless, feedback from the interviewers indicates that nearly all of those declining to participate said that they simply lacked the time to go through their files and prepare the data required for the interview. Although, in theory, the low response rate may suggest an underreporting of enterprise-level prevalence rates (particularly if enterprises having experienced such problems in the past year preferred not to admit them), the low response rate may also be indicative of an overreporting bias with enterprises with no experiences to report viewing the research as insignificant

and hence, simply not responding. While it is impossible to determine the extent and nature of any nonresponse bias inherent in our data, several precautions (suggested by Frone, 2005) were taken to reduce the likelihood of nonresponse bias in general. First, the questions on employee substance use and substance-related programs were embedded in a broader questionnaire protocol described to respondents as addressing employee well being and related HR issues. In addition, respondents were guaranteed confidentiality and informed that the study was being conducted by a well-known and well-respected Israeli research institute with much to lose were confidentiality to be broken. Finally, respondents were informed that each enterprise was to be given a code number and that aside from the authors, no one would be provided with access to the list linking enterprises with code numbers.

Industry and ownership structure of the 100 companies included in the final sample resembled those of the target population. In terms of type of industry, 49% of the firms were traditional manufacturing enterprises, 11% were construction companies, 15% produced electronics and related goods; and 25% were service companies. In terms of ownership, 82% were privately held, and 18% were publicly held. Most companies in the final sample (67%) were legally independent entities, whereas 22% were enterprises legally associated with other Israeli companies (i.e., partial or complete ownership), and 11% were subsidiaries or Israeli branches of foreign-based firms (eight being subsidiaries of American firms). Only 30 firms had union representation. On average, the enterprises in our sample employed 325 employees. Additional sample characteristics are presented in Table 1.

Trained interviewers conducted telephone-based interviews with key management informants at each of the sampled firms. Prior to the actual interview, we sent all consenting respondents a copy of the interview protocol so that they would be able to prepare responses to items (i.e., regarding disciplinary action, shop rules or policies related to employee absenteeism, on-the-job substance use or impairment, employee demographics) potentially requiring a check of company archival data. In order to enhance the reliability of the data, interviewers verified that responses to such items were indeed checked against or based on this archival data. Twelve companies failed to check their data against archival data prior to the interview, necessitating a second, follow-up call in order to collect data requiring archival analysis on the part of the respondent.

In the majority of cases (63%), the key respondent in the firm was the human resource manager. To verify interrater reliability, we conducted second interviews with alternate informants (e.g., V.P. of Operations or C.E.O.) in 5% of the enterprises completing the protocol. Mean interrater agreement for simple factual items (e.g., "Does your firm offer substance abuse-related EAP services as part of its human resource management system?") was 95%, versus 73% for more perception-based

TABLE 1
SAMPLE CHARACTERISTICS – MEANS AND STANDARD DEVIATIONS OF THE MEASURED VARIABLES

Variable	M	SD
Drug-related problem	.10	.30
Alcohol-related problem	.25	.43
Substance abuse related problem	.29	.45
Industry: Manufacturing	.49	.50
Industry: Construction	.11	.31
66% or more males of all employees	.48	.50
25% or more USSR émigrés of all employees	.36	.48
Number of employees	324.5	486.3
Mean age of employees	38.2	5.5
Union = Yes	.30	.46
One or more SA related employee assistance services	.10	.30
Substance abuse provision in discipline policy	.12	.37
Israeli subsidiary of American firm	.08	.27

items (e.g., “On average, how many minor injuries, that is injuries that did not require external medical treatment, occurred in your firm during 2002?”).

Although the rate of agreement reported in the current study is greater than the 0.70 cutoff recommended by Nunnally (1978), because this reliability assessment was made in only 5% of the enterprises included in our sample, the potential for bias remains (Huselid & Becker, 1996). Still, in the case of the five enterprises in which interrater reliability was checked, inconsistencies were resolved (in all cases in favor of the primary respondent) when the secondary respondent was provided the archival data upon which the primary respondent based his/her responses, suggesting that any potential for low interrater reliability across the 95 unchecked enterprises was largely minimized by our verification that interviewee responses were based

upon an inspection of archival data. All interviews were conducted in 2003, with respect to enterprise experiences during the previous year (i.e., 2002).

MEASURES

Prevalence of employee substance-related problems severe enough to warrant managerial attention at the firm level. Respondents were asked to report the number of employees confronted by management for any substance-related workplace problem during the year 2002. In the printed questionnaire sent prior to the phone-based interview, and again in the phone based interview, substance-related workplace problems were broadly defined to include (a) on-the-job alcohol and/or drug use, (b) job-related problems (e.g., absenteeism, tardiness; impairment related behavioral or performance problems) stemming from suspected use off the job or just prior to coming to work, and (c) job-related problems (e.g., behavioral or performance problems) stemming from suspected use on or around (i.e., during breaks) the job. Respondents were also asked to indicate the nature of the information leading them to initially suspect the employee of work-based substance use or impairment (e.g., personal observation or observation by other managers, coworker reports, severe deterioration in job performance, excessive absenteeism).

Organizational response to substance-related problems. Based on a measure developed by Milne and Blum (1998), respondents were asked to indicate whether or not their firm offered any of 13 forms of EAP-type services as part of their human resource management system including counseling to employees for any number of problems (e.g., stress, marital strain or divorce), short-term financial support such as emergency loans, and substance abuse treatment. For each service offered, respondents were asked to indicate (a) where the service was offered (i.e., on or offsite), (b) by whom (in-house counselor, contracted service), (c) the criteria used in determining whether and how to offer the service, and (d) how employees were made aware of the availability of the service (e.g., word of mouth, bulletin boards, referral by supervisor, referral by human resource manager).

Respondents were also asked a number of questions designed to assess the extent to which their enterprise used a discipline-based approach to dealing with employee substance-related problems. Based on Milne and Blum (1998), respondents were asked whether their company had a formal and written disciplinary policy, how the policy was disseminated (e.g., brochures, notices on bulletin boards), and whether the policy included rules regarding employee substance use/abuse. Using a five-point scale ranging from 1 (never) to 5 (very often), respondents were asked to specify the extent to which their organizations made use of a variety of techniques to enforce substance-related regulations, including oral warnings, suspension, and urine- or blood-based random or for-cause testing. In cases where no substance-

related offense had ever occurred, respondents were asked to evaluate the probability that their organization would take such steps. Specifically, regardless of whether in fact the firm confronted a substance abuse problem during 2002, respondents were asked to report the firm's policy orientation toward handling substance abuse problems (whether employees with such a problem are automatically/mostly dismissed or aided and supported by the firm). In those enterprises reporting at least one substance-related case during 2002, we asked the informants to indicate which of the following three statements characterized their handling of each case: (1) the employee was disciplined but not dismissed; (2) the employee was dismissed; and (3) the employee received some sort of assistance.

Industry, enterprise and workforce characteristics. Respondents were asked a number of general questions regarding their firm and its workforce (e.g., number of employees, percentage of employees who are male, percentage of employees having emigrated from various geographic regions during the previous 10 years, unionized versus nonunion workforce). Additional demographic information (e.g., type of industry, location) was obtained from the Israeli Dun and Bradstreet market database.

RESULTS

THE PREVALENCE OF SUBSTANCE-RELATED PROBLEMS IN THE ISRAELI WORKPLACE

A total of 29% of the firms (n=29) indicated that one or more employees had been confronted by management for alcohol and/or drug related workplace problems during the year 2002 (see Table 1). A total of 15 cases involving drug use only were reported in 10 enterprises, with coworkers serving as the primary reporting source. However, respondents reported that in most of these cases these coworker reports were corroborated with job-related criteria such as decreased performance and unusually high rates of absenteeism prior to the decision to confront the suspected employee. Alcohol-related problems were more prevalent, with 38 cases reported among 25 firms. Supervisors served as the primary reporting source in 25 out of the 38 cases. However, respondents noted that in nearly all cases, these reports were also corroborated with other indicators (i.e., declining performance, increased absenteeism and lateness, discarded alcoholic beverage bottles in the employee's work area) before management took action. In sum, of the 100 enterprises included in our sample, 29 reported a total of 53 individuals having substance-related workplace problems severe enough to warrant managerial attention in 2002 for an average of 1.8 cases per affected enterprise.

Based on these results, it is possible to estimate the proportion and number of workers employed in relevant enterprises likely to have been confronted by management for substance-related workplace problems in 2002. Given an average firm size of 324.5 employees, the total number of employees represented in this

sample of organizations is approximately 32,450 (i.e., 324.5×100). Given a total of 53 cases reported by the 29 affected enterprises, we estimate that 0.16% (i.e., $53/32,450$) of the relevant national workforce (totaling, as noted earlier, 850,000 individuals), or approximately 1,360 workers, had substance-related workplace problems sufficiently severe to come to the attention of management in 2002.

FACTORS ASSOCIATED WITH THE PREVALENCE OF EMPLOYEE SUBSTANCE-RELATED PROBLEMS

In order to test Hypothesis 1 and get a better idea as to how these problems were distributed across the firms studied, we calculated the prevalence rate for alcohol- and drug-related problems across each of the characteristics specified in the hypothesis. We examined the distribution of such problems by industry and enterprise characteristics in order to assess the degree to which problem prevalence might be associated with particular characteristics. The results of these analyses are presented in Table 2. Table 3 presents bivariate (pairwise) relationships between substance abuse related problems and the measured variables.

As can be seen in Tables 2 and 3, the bivariate analyses identified two organizational characteristics related to drug related workplace problems, namely being in the traditional manufacturing sector ($F=3.952, p<0.05; r=0.27, p<0.01$) and, contrary to our hypothesis, having a generally older workforce ($r=0.21, p<0.05$). Indeed, all but one of the 10 organizations reporting a drug related workplace problem were engaged in traditional manufacturing (18.4% of the manufacturing firms encountered such problem at least once during 2002), and the proportion of these problems was higher among firms with older workforce.

Partial support for Hypothesis 1 is also apparent with respect to alcohol related workplace problems. Specifically, the bivariate analysis revealed a significant, negative association between construction and such problems ($r=-0.20, p<0.05$). In addition, out of the five enterprise characteristics posited to be associated with substance abuse related problems, bivariate analyses identified one as being associated with alcohol related workplace problems, namely unionized status ($t=-2.727, p<0.01; r=.30, p<0.01$). Indeed, 40% of the unionized firms encountered at least one alcohol-related problem during 2002.

Support for Hypothesis 1 is also provided in the context of overall substance abuse problems (alcohol and/or drugs). As can be seen in Tables 2 and 3, the bivariate analyses identified four organizational characteristics related to substance abuse-related workplace problems, namely (a) industry ($F=3.694, p<0.05; r=0.21, p<0.05$ for manufacturing and $r=-0.23, p<0.05$ for construction), (b) a disproportionately male workforce ($t=-2.083, p<0.05; r=0.20, p<0.05$), (c) a workforce characterized by a high proportion of émigrés from the former USSR ($t=-2.016, p<0.05; r=0.21, p<0.05$), and (d) unionized status ($t=-2.533, p<0.05; r=0.27, p<0.05$). In other words, 38.8% of manufacturing firms, none of the construction firms, 39.6% of

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TABLE 2

PREVALENCE AND ANALYSES OF VARIANCE RESULTS FOR INCIDENCE OF ONE OR MORE EMPLOYEE SUBSTANCE RELATED WORKPLACE PROBLEMS BY INDUSTRY AND ENTERPRISE CHARACTERISTICS

Enterprise and Industry characteristics	Drug-related problems	Alcohol-related problems	Substance abuse related problems
	Number of firms reporting one or more cases (%)	Number of firms reporting one or more cases (%)	Number of firms reporting one or more cases (%)
Industry (N=100)	F=3.952*	F=2.731	F=3.694*
Manufacturing (N=49)	9 (18.4%)	16 (32.7%)	19 (38.8%)
Construction (N=11)	0 (0%)	0 (0%)	0 (0%)
Other (N=40)	1 (2.5%)	9 (22.5%)	10 (25%)
Number of employees (N=94)	F=1.024	F=.614	F=.208
100-199 (N=50)	6 (12%)	13 (26%)	15 (30%)
200-499 (N=30)	1 (3.3%)	9 (30%)	9 (30%)
500 or more (N=14)	2 (14.3%)	2 (14.3%)	3 (21.4%)
Mean age of employees (N=95)	F=2.005	F=.097	F=.760
18-29 (N=6)	0 (0%)	1 (16.6%)	1 (16.6%)
30-40 (N=65)	5 (7.7%)	16 (24.6%)	17 (26.2%)
41 or older (N=24)	5 (21.7%)	6 (26.1%)	9 (37.5%)
Disproportionately male workforce ¹ (N=97)	t=-1.364	t=-1.216	t=-2.083*
Yes (N=48)	7 (14.6%)	15 (31.3%)	19 (39.6%)
No (N=49)	3 (6.1%)	10 (20.4%)	10 (20.4%)
High proportion of USSR émigrés ² (N=98)	t=-.224	t=-1.752	t=-2.016*
Yes (N=36)	4 (11.1%)	13 (36.1%)	15 (41.6%)
No (N=62)	6 (9.7%)	12 (19.3%)	14 (22.6%)
Union (N=95)	t=-.600	t=-2.727**	t=-2.533*
Yes (N=30)	3 (10%)	12 (40%)	14 (46.6%)
No (N=65)	7 (10.8%)	13 (20%)	13 (20%)

* p < 0.05; ** p < 0.01

¹ 66% or more of all employees are male.

² 25% or more of all employees.

TABLE 3
BIVARIATE RELATIONSHIPS BETWEEN SUBSTANCE ABUSE RELATED PROBLEMS
AND MEASURED VARIABLES

Variable	Drug- related problem	Alcohol- related problem	Substance abuse related problem
Industry: Manufacturing	.27**	.17	.21*
Industry: Construction	-.12	-.20*	-.23*
66% or more males of all employees	.14	.12	.20*
25% or more USSR émigrés of all employees	.02	.18	.21*
Number of employees	-.01	-.14	-.11
Mean age of employees	.21*	.05	.12
Union = Yes	.06	.30**	.27*
One or more SA related employee assistance services	.22*	.27**	.23*
Substance abuse provision in discipline policy	.08	.00	.03
Israeli subsidiary of American firm	.27**	.00	.14
Substance abuse related problem	.52**	.90**	---
Alcohol-related problem	.27**	---	---
Drug-related problem	---	---	---

* $p < 0.05$; ** $p < 0.01$

the disproportionately male firms, 41.6% of firms with high proportion of former USSR émigrés, and 46.6% of unionized firms encountered at least one alcohol/drug related problem

Moreover, these industry and enterprise characteristics suggest that certain enterprises, by virtue of their characteristics may be more "at risk" for such problems than others. For example, all four predominantly male, unionized enterprises having 25% or more immigrant employees reported encountering at least one substance abuse-related problem in the past year. Firms in this group had an average of 1.75 substance abuse related workplace problems in 2002. Given that these enterprises employ, on average, 170 employees, this suggests a subsector, substance abuse related problem prevalence rate of 1.03% (total of 7 cases/[170 * 4]), substantially higher than the general substance-related problem prevalence rate of 0.16% (53 cases/32,450 employees in the general sample) for all private sector firms with over 100 employees. Put in other terms, of the 1,360 cases of employee substance-related workplace problems estimated above, 13% (177 cases) were substance abuse related problems reported in the enterprises characterized by the three risk factors noted above (i.e., predominantly male, unionized enterprises having 25%

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or more immigrant employees). This is notable given that companies with such characteristics employ only 2.1% of all workers employed by the firms represented by the enterprises included in our sample.

PREVALENCE AND DISTRIBUTION OF WORKPLACE SUBSTANCE-RELATED POLICIES AND PROGRAMS

Although 90% of the firms participating in our study did offer some sort of general assistance to employees (most typically assistance aimed at helping with personal and/or work-related problems other than alcohol and drug abuse), only 10% offered services specifically aimed at employees with substance-related problems. The prevalence of such programs and services among the firms included in our sample is shown in Table 4.

In most organizations (approximately 70%), employee assistance services (general and substance-related) were provided in-house by employees of the firm and were financially supported by the organization. For the 30% outsourcing such services, price and past experience were the primary reasons for choosing

TABLE 4
PERCENT OF ENTERPRISES OFFERING GENERAL AND SUBSTANCE ABUSE RELATED ASSISTANCE PROGRAMS

General (90% reported offering at least one program)		Substance-abuse programs (10% reported offering at least one program)	
Service	Percent offering	Service	Percent offering
Referral to the appropriate national institution (e.g., Social Security)	43	Referral to and coverage of inpatient/outpatient treatment	7
In-house professional counseling (e.g., for stress, divorce)	44	Coverage for external counseling	4
Financial support (e.g., loans)	84	Coverage for rehabilitation	1
Counseling and support for victims of sexual harassment	53	General purpose financial assistance to help defray cost of treatment	4

the external service supplier. Word of mouth played a critical role in encouraging employees to seek help for their problems, with 67% of the firms identifying word of mouth as a prominent means by which employees were made aware of the availability of these programs. Supervisors were seen as involved in bringing general and substance-related employee assistance services to employees' attention in only 38% of the firms studied.

Substance-related disciplinary policies were no more prevalent in the responding enterprises than substance-related employee assistance services. Although 74% of the firms reported having some sort of written disciplinary policy, in only 12 of the enterprises studied did the policy include a specific reference to substance use, and only one of these 12 enterprises also reported offering substance-related employee assistance services. Interestingly, most firms (60%), regardless of whether they had experienced a substance-related incident, admitted having relatively high tolerance toward those employees with substance-related workplace problems (though employees with alcohol-related problems were more tolerated than those with drug-related problems). Specifically, the most prevalent responses to substance-related offenses were verbal warnings (with formal documentation in the employee's personal file) and, sometimes, invocation of a disciplinary committee with the involvement of higher-level managers. Such a permissive tendency was also reflected in the relatively low rate of dismissal of employees with substance-related problems. In only five of the 15 reported cases of drug abuse was the employee ultimately dismissed. Similarly, of the 38 reported alcohol related cases, in only 10 was the troubled employee eventually terminated. No form of drug testing was reported to have ever been used by any of the enterprises included in our sample.

Accordingly, our test of Hypothesis 2 focused on the distribution of two other mechanisms adopted by Israeli enterprises as a means by which to address employee substance-related workplace problems, namely (a) the provision of one or more substance-related employee assistance (EA) services and (b) the adoption of a formal and written substance-related disciplinary policy.

As shown in Table 5, Hypothesis 2 received only limited support. Specifically, the only enterprise characteristic associated with the provision of one or more substance-related EA services was a previous enterprise history of employee substance-related problems. As hypothesized, such services were significantly more prevalent in enterprises that reported having dealt with one or more employee substance-related workplace problems in the past ($t=-2.315$, $p<0.05$). Over 20% of these enterprises provided one or more substance abuse related EA services to their employees. In addition, contrary to Hypothesis 2, such services were significantly more prevalent in unionized enterprises ($t=-2.068$, $p<0.05$). None of the proposed organizational characteristics was associated with the provision of substance abuse disciplinary policy.

TABLE 5
PREVALENCE AND ANALYSES OF VARIANCE RESULTS FOR APPLICATION OF TWO ALTERNATIVE INTERVENTION MECHANISMS BY ENTERPRISE CHARACTERISTICS

Enterprise characteristics	One or more SA related EAPs	Substance abuse policy
	Number of firms reporting one or more cases (%)	Number of firms reporting one or more cases (%)
Number of employees	F=1.539	F=.223
100-199 (N=50)	3 (6%)	4 (8%)
200-499 (N=30)	4 (13.3%)	4 (13.3%)
500- or more (N=14)	3 (21.4%)	2 (14.3%)
Mean age of employees	F=1.150	F=2.743
18-29 (N=6)	0 (0%)	2 (33.3%)
30-40 (N=65)	5 (7.7%)	4 (6.1%)
41 or older (N=24)	4 (17.4%)	6 (26.1%)
Disproportionately male workforce ¹	t=-1.074	t=1.313
Yes (N=48)	6 (12.5%)	4 (8.3%)
No (N=49)	3 (6.1%)	8 (16.3%)
High proportion of USSR émigrés ²	t=.462	t=.427
Yes (N=36)	3 (8.3%)	4 (11.1%)
No (N=62)	7 (11.3%)	8 (12.9%)
Union (N=95)	t=-2.068*	t=1.631
Yes (N=30)	5 (16.6%)	2 (6.6%)
No (N=65)	5 (7.7%)	10 (15.4%)
One or more cases of employee substance abuse problems	t=-2.315*	t=-.226
Yes (N=29)	6 (20.7%)	4 (13.8%)
No (N=71)	4 (5.6%)	8 (11.3%)
American subsidiary	t=-.980	t=-1.139
Yes (N=8)	2 (25%)	2 (25%)
No (N=92)	8 (8.7%)	10 (10.9%)

* $p < 0.05$

¹ 66% or more of all employees are male.

² 25% or more of all employees.

The findings presented above indicate that the direct impact of employee substance use and impairment on the Israeli workplace appears to be far more circumscribed than might be assumed strictly on the basis of the available workforce substance-related data noted earlier. While close to a third of the enterprises studied encountered one or more employee substance-related workplace problems, the total number of cases was relatively small (i.e., 53 out of an estimated total sample workforce of over 32,000). Generalizing to the overall workforce employed by the organizations represented by the enterprises in our sample, our results suggest that the total number of individuals encountering such problems in private sector Israeli enterprises with over 100 employees is likely to be well under 2,000.

Such workplace prevalence rates may not be sufficiently high to warrant any increased policy maker and employer attention in the form of legislation and worksite intervention. That is, it may be argued that since firms rarely reported more than one or two employee substance-related problems drawing the attention of management, the base rate of actual employee substance-related problems within Israeli firms may be insufficient to justify the costs involved in encouraging (no less mandating) across-the-board adoption of worksite substance-related programs such as EAPs and drug testing.

On the other hand, as we discuss in greater detail below, our data suggest that the encouragement of program or policy adoption in certain higher risk sectors and/or enterprises may be justified in that certain sectors and types of enterprises were found to be at greater risk for employee substance-related workplace problems than others. For example, as we posited, our findings suggest that Israeli firms in traditional manufacturing may be at greater risk for drug related workplace problems, and firms in construction at less risk for alcohol-related problems, than enterprises in other economic sectors. The inverse correlation coefficient ($r = -0.20$) presented in Table 3 regarding the prevalence of alcohol-related problems in Israel's construction sectors is in direct contrast to Frone's (2005) findings of a positive association in the United States, and is most likely a function of the significant proportion of Muslim Arabs employed in this sector (Weiss & Moore, 1992). Indeed, although Muslim Arabs comprise only 16.1% of the Israeli population, they account for 40.3% of all those employed in the construction industry in Israel (Israel Central Bureau of Statistics, 2005).

In addition to industry characteristics, a number of enterprise characteristics were also found to be associated with an increased risk of employee substance-related workplace problems. Specifically, male-dominated, unionized enterprises employing a greater number of émigrés from the former USSR were found to be at increased risk of experiencing substance-related workplace problems. Thus, while the overall prevalence of substance-related workplace problems for Israeli enterprises employing

100 or more workers was estimated to be 0.16%, for unionized enterprises with a predominantly male workforce including a relatively large proportion of émigrés from the former USSR, this prevalence rate was estimated to be approximately 6.5 times as high, or 1.03%.

Taken as a whole, these findings suggest that while the prevalence of employee substance-related workplace problems in Israel may be rather low, certain industries and enterprises may be at a heightened risk. Consequently, rather than casting employee substance-related workplace problems as largely irrelevant, policy makers and employers might best recognize that such problems, while not distributed evenly across enterprises, do in fact exist and, in many cases, have both direct and indirect effects on the productivity of the sectors and enterprises involved (Bellegris, 1996; Harwood et al., 1998). As such, one important policy implication of our study is that it may be more efficient to develop prevention and treatment policies and programs focused on these specific sectors and enterprises than to attempt to develop more generic policies and programs geared towards the entire population of Israeli enterprises, the vast majority of whose managers appear to be either unaware, if not unaffected, by such problems. In this context, policy makers in Israel may wish to consider a targeted campaign aimed at educating managers in those sectors or enterprises in which such problems are more prevalent about the potential cost savings associated with proactive workplace substance-related policies and programs. Policy makers may also wish to consider the introduction of various economic incentives designed to encourage such employers to introduce such policies and programs. The recent study of Spell and Blum (in press) regarding program adoption in the United States suggests that such institutional factors can play a significant role in the adoption of substance abuse policy and programs at the enterprise level.

But just because governmental intervention was instrumental in spurring program and policy adoption in the United States (Blum & Roman, 1989; Roman & Blum, 1987) does not necessarily mean that it will have the same impact in other countries. Moreover, it may be that, consistent with resource dependence theory (Pfeffer & Salancik, 1978), experience with such employee problems is a sufficient, "natural" driver of program adoption and that even targeted policy intervention is not required. Indeed, our findings suggest that such "natural" program adoption may already be occurring to some extent. That is, while the overall availability of EAP services was, as noted above, quite limited among Israeli employers in general (approximately 10%), such services were found to be significantly more prevalent (in fact, more than twice as prevalent) in enterprises reporting one or more employee workplace substance abuse problems in the past year.

Still, given Spell and Blum's (in press) findings that an important determinant of program adoption in the United States had to do with managers' perceptions of employee substance use and impairment as a serious workplace problem, targeted educational campaigns may be important in order to raise managerial awareness in those enterprises and sectors in which such problems, while prevalent, may nevertheless be subject to a certain degree of managerial denial. The potential benefit of targeted incentives and educational campaigns is further reinforced by our finding that, despite such "natural" program adoption, SA policy and program adoption remains quite limited even in those enterprises experiencing higher rates of problem prevalence. Specifically, our findings indicate that only 14% of Israeli enterprises having experienced one or more employee substance-related problems in the past year have a formal, written policy specifying how such problems will be handled. Similarly, just 21% of enterprises with workplace substance abuse experience offer substance-related EA services. Moreover, as noted above, most enterprises, including those with a formal and written substance-related disciplinary policy, apply a very mild form of discipline (i.e., verbal warnings) with only about one quarter of all of the cases reported resulting in termination. As noted earlier, previous studies conducted in the United States suggest that the failure to provide assistance, combined with a willingness to allow troubled employees to return to work virtually sanction-free may significantly increase the prevalence of employee substance-related problems (Ames, Grube, & Moore, 2000).

One advantage that Israel may have over the United States in promoting the adoption of EAP services is that, contrary to Spell and Blum's (in press) findings in the United States, in Israel, enterprise unionization status appears to have a positive association with program adoption. Given Israel's relatively high rate of union density, such a positive association may facilitate the broader adoption of such programs in high-risk sectors and industries. As to why such a positive association between union status and EAP services adoption exists in Israel, we may only speculate. One reason may be that many of these programs were initially developed by or in cooperation with Israel's primary union at a time when this union focused as much on its members' overall health and well being as it did on "bread and butter" issues (Harel, Bamberger, & Tsafir, 2000). Given the role played by the union in initially shaping such programs, it comes as little surprise that most of these programs, while still seeking to deter workplace substance use, continue to place an emphasis on ensuring members' individual civil rights and due process. And, as noted by Bamberger and Sonnenstuhl (1996) with respect to unions in the United States, unions may be more open to employee substance-related assistance services to the degree that such programs are seen as focused upon the well being of their membership rather than enhancing managerial control or productivity.

Taken as a whole, our findings suggest that employee substance-related problems, while perhaps not as rare as is commonly assumed by many Israeli managers (Tzweig, 2004), may also not be as great a concern for policy makers and employers as suggested by recently collected workforce substance-related data. Indeed, it is unclear whether the 29% enterprise prevalence rate is sufficiently high to warrant broad-scale policy maker and employer attention in the form of cross-sector legislation and worksite intervention. On the one hand, it may even be argued that since even "at-risk" firms rarely reported more than one or two employee substance-related problems drawing the attention of management in a given year, the base rate of actual employee substance-related problems within Israeli firms may be insufficient to justify the costs involved in establishing even targeted worksite substance-related programs such as EAPs, no less drug testing. On the other hand, our study only looked at cases coming to the attention of management. Given the lack of a substance-related policy in the vast majority of enterprises studied, the tendency of employees to deny and cover up their own and others' substance-related problems (Sonnenstuhl, 1996), and the non-anonymous nature of our survey, we suspect that our estimate of problem prevalence may be underestimated. Furthermore, taking into account that some of these workers may be employed in high risk jobs, having the potential to cause injury to themselves or others, or cause severe economic loss to their employer, even with only one or two cases per enterprise per year, the benefits of proactive workplace intervention may still outweigh the costs. Additionally, while drug testing and in-house EAP interventions may indeed lack economic feasibility, other lower cost options, such as peer assistance (Bacharach, Bamberger, & Sonnenstuhl, 1996) may be more feasible given lower within-firm incidence rates. Indeed, our data indicating that coworkers served as the primary reporting source of substance-related problems suggest that trained coworker volunteers operating in the context of such a peer assistance model may serve as an ideal, low-cost alternative to the professional EAP widely adopted in the United States.

All of the policy implications discussed above must be considered cautiously given the limitations of our data. Foremost among these limitations is the limited number of firms included in our analysis. Combined with a low base rate for the dependent phenomena in question, the limited number of observations has clear implications regarding the statistical power of our analyses. The limited sample size also made it impossible to conduct multivariate analysis. Consequently, it is possible that some of the significant bivariate findings reported above may be spurious. In the future, researchers using larger samples should attempt to replicate our findings and assess the degree to which industry and enterprise characteristics retain their

statistical significance when tested against one another in the context of a more inclusive, multivariate model.

Despite this limitation, we believe that our study offers a number of significant contributions to the literature on workplace substance-related problems. First, it represents a rare attempt to assess the prevalence of employee substance-related problems and employer responses to such problems outside of the United States. Second, our findings suggest that even in countries in which employer and policy maker concerns regarding the workplace implications of employee substance use are grounded upon a high workforce prevalence of substance use and abuse, actual workplace data may indicate less of a basis for concern. Our findings suggest that while such concern may be justified with regard to certain employment sectors or enterprises with particular workforce characteristics, for the vast majority of Israeli enterprises, there may be substantially less cause for concern. Finally, our study provides some initial insights into the transferability of the American workplace substance abuse model to other countries. In particular, our findings suggest that at least in Israel, the diffusion of the American model of workplace substance use deterrence and treatment may be limited by a lack of enterprise experience with or awareness of such problems. So salient does this barrier appear to be that we found no significant increased likelihood of program adoption even in Israeli subsidiaries of American firms (nearly all of which offer extensive substance abuse programs to their home-based employees).

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