

ORGANIZATIONAL CHARACTERISTICS RELATED TO THE ADOPTION OF EMPLOYEE ASSISTANCE AND DRUG TESTING PROGRAMS IN CANADA

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ABSTRACT

This study examines characteristics of work sites related to the establishment of Employee Assistance Programs (EAPs) and drug testing programs. A sample of 633 human resources managers at work sites with 100 or more employees across Canada completed a questionnaire on their work site characteristics and the types of programs available (response rate = 77.8%). Work sites with EAPs had significantly ($p < .01$) fewer visible minorities, were more likely to be unionized ($p < .0001$), and had less hierarchical management styles ($p < .00001$) than work sites without EAPs. For drug testing programs, significant differences were found across provinces ($p < .00001$) for work sites that delivered goods to the United States ($p < .01$), and for those in the safety-sensitive work sectors ($p < .00001$). Results suggest that the presence of an EAP is an indication of an employee benefit and is more likely to exist in work sites with nonhierarchical management styles, and that drug testing programs are linked to geopolitical issues and safety concerns.

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Employee assistance programs (EAPs) and drug testing programs are two broad kinds of programs that have been adopted in Canadian workplaces to address drug and alcohol problems and the potential adverse consequences associated with them. Underlying each type of program is a different rationale for addressing drug and alcohol use in the workplace. EAPs are based on the premise that early intervention and treatment are the best approaches to drug problems in the workplace, whereas drug testing is based on the principle of deterrence. Whether EAPs or drug testing programs actually improve safety and increase productivity has not been conclusively demonstrated (Kraus, 2001; Macdonald, 1997; Macdonald, Lothian, & Wells, 1997; Macdonald, Wells, Lothian, & Shain, 2000), and is not the focus of this paper. The overall purpose of this study is to better understand the organizational characteristics related to the existence of an EAP or a drug testing program.

EAPs are workplace programs where employees with alcohol, drug, or other personal problems can receive short-term counselling. In the past, critics have commented that EAPs were merely an instrument of social control (Csiernik, 1996). Most of the original programs in the 1940s dealt exclusively with alcohol problems, required supervisors to identify people who abused alcohol, and mandated treatment as a condition of work (Corneil, 1984). In Canada, use of an EAP by employees cannot be a condition of continued work. As well, most Canadian programs include treatment options for a wide variety of problems; they also include mechanisms for confidential counselling, voluntary treatment without the knowledge of supervisors, and are more likely to exist in large unionized work sites (Csiernik, 2002; Macdonald, Csiernik, Durand, Rylett, & Wild, 2006). EAPs are popular and exist in 67.8% of large Canadian work sites (Macdonald et al., 2006).

Drug testing programs aim to detect alcohol and illicit drug use by employees and to impose sanctions or conditions for continued employment for those who test positive. Drug use is detected by chemically analyzing the bodily fluids of employees for metabolites of certain psychoactive drugs: most commonly, cannabis, cocaine, opiates, benzodiazepines, and amphetamines.

Drug testing programs first appeared in the United States in the early 1970s, and the proportion of companies with these programs likely peaked in the mid-1990s when 52% of U.S. companies had some form of drug testing (American Management Association, 2000). In 1989, the U.S. Department of Transportation introduced legislation mandating testing in certain companies in the transportation sector, and exerted pressure on the Canadian government to implement similar legislation. In 1990, Transport Canada developed a strategy document for mandatory drug testing in safety-sensitive positions; however, the plan received much opposition through a public consultation process, and the proposed legislation was dropped (Transport Canada, 1990). Employees, unions, and civil rights groups have challenged the legality of testing based on violations of the Canadian Charter of Rights and Freedoms and human rights legislation, and under collective bargaining or labour arbitration, primarily because urine tests can only assess whether a person used drugs in the past (McInally, 1995). This time interval varies, however, depending on the drug; for example, cocaine can be detected for up to 5 days (Kapur, 1994), but marijuana metabolites can be detected for a few weeks after use.

Several employers have been ordered to revise various aspects of their drug testing policies. In a well-publicized case of *Entrop vs. Imperial Oil Ltd.*, both pre-employment and random drug testing were determined to be in violation of human rights laws because the tests could not assess actual or

future impairment on the job. In Canada, drug testing programs are not as popular as EAPs. Data from a 2003 Canadian survey showed that only 10.3% of large work sites had drug testing programs, and that these programs were most likely to exist in the safety-sensitive work sectors (Macdonald et al., 2006).

The main underlying goal of drug testing is deterrence. If an employee tests positive for a given drug, he/she is subject to punitive actions which can range from being fired to mandatory drug assessment or treatment. Deterrence is based on the premise that with the increased chances of detection, accompanied by the knowledge of the negative consequences of being detected, employees will be less likely to use drugs. By contrast, EAPs are based on treatment principles where employees can receive help that is both voluntary and confidential.

Very little research has been conducted on public perceptions of companies with EAPs or drug testing programs. One study indicated that college graduates had more positive attitudes and greater intention to apply for jobs at companies without drug testing programs (Crant & Bateman, 1990). Others have speculated that employees might prefer companies with drug testing programs due to intrusive privacy issues (Rothstein, 1989). One important question is whether existence of a drug testing program or an EAP at a work site is reflective of an overall company culture.

In this study, our aim is to identify and compare the characteristics of work sites that have established EAPs or drug testing programs. Given the very different philosophical underpinnings of EAPs and drug testing, it is worthwhile to understand whether the existence of each type of program is reflective of different work site cultures—that EAPs may be related to employee benefits and drug testing to social control. Knowledge of these organizational characteristics can help better understand the range of factors that might influence the establishment of EAPs or drug testing programs. These questions are important from employee, employer, and societal perspectives. From an employee perspective, job applicants might prefer those companies where they can have more influence over decisions and that are less intrusive on personal privacy. From an employer perspective, these issues may be relevant as well, especially in situations where job markets are tight. A important question is whether the existence of an EAP or drug testing program might serve as a marker to identify such companies. Finally, from a societal perspective, the characteristics of work sites with and without EAPs or drug testing programs can provide insights into which demographic groups, such as males or minorities, are serviced. This may be important from a societal perspective because if EAPs, as a privatized form of health care, are servicing the more privileged groups, then certain groups, such as visible minorities, are left to obtain treatment through universal health care. The existence of EAPs that address the needs of a large proportion of the workers may be related to decreased demand for public services or lower quality of services (Tudiver, 1993). The observation that EAPs may underserve certain marginalized groups has been noted by others (Chima, 1999; Jackson and Greene, 2002; Karuntzos, Dunlap, Zarkin, & French, 1998). Overall, we aim to better assess evidence that may suggest that EAPs are an employee benefit and that drug testing programs reflect a culture of social control.

HYPOTHESES

Since EAPs and drug testing programs were developed for different reasons and have differing philosophical underpinnings, we hypothesized that companies with EAPs and drug testing programs would be different in several dimensions.

1. We hypothesized that EAPs are primarily an employee benefit because they promote overall worker well-being without potentially negative consequences to employees. Work sites with EAPs will have more employee involvement in decision making, will be less likely to adopt hierarchical management styles, and will be more likely to have unions and mechanisms to promote worker rights.
2. Companies with drug testing programs will have less employee involvement in decision making, more hierarchical management styles, and will more likely be found in safety-sensitive work sectors. We also hypothesize that companies with drug testing will deliver more goods to the United States, reflecting geopolitical motives for the program.

In addition to these hypotheses, we will examine demographic characteristics such as the distributions in terms of age, gender, and visible minorities in work sites with EAPs and drug testing programs, and the likelihood of programs in different Canadian regions.

METHODS

The Sample

The sample, collected in 2002–2003, consisted of Canadian work sites with 100 or more employees. The sampling frame was obtained from Dun and Bradstreet of Canada, an international marketing firm, which provided a comprehensive list of human resource managers from all work sites in Canada with 100 or more employees. A systematic sample of 5% of these work sites was drawn from the list, which was organized within work sectors and provinces. In addition to this sample, a 20% over-sample of companies was selected from the work sector of transportation and communications in order to obtain a larger sample of companies that were expected to have drug testing programs (i.e., more statistical data for analyses). This produced a total sample of 1,104 work sites. During data collection, we found that 161 work sites had downsized to less than 100 employees, 47 had gone out of business, 76 could not be contacted despite repeated attempts, and 6 were duplicate entries. These work sites were dropped from the study, leaving 814 eligible to participate. Of these, 633 completed the questionnaire, a response rate of 77.8%.

Data Collection Procedures

Data collection included the following procedures. The human resource manager was sent a covering letter, a copy of the questionnaire, and a stamped, self-addressed, return envelope. If the questionnaire was not returned after 3 weeks, a student research assistant conducted a first follow-up call to encourage individuals to complete the questionnaire. In the event that a message had to be left, a minimum of two more calls were made in an attempt to make contact with human resource managers or their designates. Telephone interviews were conducted when recipients indicated they preferred this method. Nonrespondents were sent a follow-up letter after 6 weeks, and another copy of the questionnaire was sent to the human resource manager. After 12 weeks, nonrespondents were telephoned again and encouraged to complete an interview. Work sites were divided into three regions of Canada and contacted by student research assistants from the University of Montreal, the University of Western Ontario, and the University of Alberta. All procedures were approved by the ethics committees of the three universities involved in the study.

Data Collection Instruments

A self-administered questionnaire addressed topics related to characteristics of EAPs and drug testing programs, and major workplace characteristics. Numerous 5-point Likert scale items were included on management practices and work-site characteristics. These items were written based on face validity to assess the constructs of hierarchical/management control, employee involvement in decision making, and the drinking habits of employees. These data were analyzed with exploratory factor analysis to create three overall scales listed in Table 1, with inter-item reliabilities based on Cronbach alphas. Each work site was classified into one of 10 work sectors. Work sites in the sectors of transportation and communications, construction, and primary resources were classified as safety sensitive; manufacturing and wholesale trade were classified as intermediate in terms of safety; and all other work sectors, such as government and education, were classified as least safety sensitive. A pretest and posttest reliability measure separated by one year was conducted with 20 human resource managers for the existence of an EAP or drug testing program. We found 100% agreement in all cases except where programs were introduced or dropped in the year.

Analyses

Both bivariate and multivariate analyses were conducted for the outcomes of presence or absence of an EAP or drug testing program. For the bivariate analyses, *t*-tests were used for interval-level variables and chi-square tests for categorical variables. Adjustments for multiple comparisons were taken into consideration in the final multivariate model using logistic regression analysis, where variables were included based on bivariate probability values that were less than 0.1.

Table 1
Items and Scales of Management Practices and Employee Behaviours

Hierarchical/management control (alpha = .527). 5 items:

1. Most employees who work here are supervised closely.
2. Management provides strong direction over employee's work.
3. Authority for decision making rests with a few individuals.
4. Employees cannot work flexible hours.
5. Job sharing is not possible.

Employee involvement (alpha = .638). 4 items:

1. At this work site major rewards are based on performance effectiveness.
2. Managers at this work site make an effort to involve employees in decision making.
3. Communication between managers and employees is good.
4. People who work here are very sensitive toward others.

Worker drinking (alpha = .298). 3 items:

1. Employees are permitted to drink alcohol at some team meetings.
 2. Many team groups drink after work.
 3. Alcohol use among employees is a problem at this work site.
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RESULTS

Initial analyses were conducted to assess the representativeness of the respondent sample. Respondents and nonrespondents were statistically similar in terms of geographic region, annual sales, and number of employees; however, they were significantly different by work sectors. Governmental human resource managers were most likely to respond (92.5%), while the least likely groups were those in retail trade (72.1%), and transportation/communications/utilities (72.7%).

Table 2 presents the relationships of various categorical variables with the existence of EAPs. When the work sectors are grouped into three rank-ordered categories from most safety sensitive to least safety sensitive, there is a significant ($p < .05$) association. The most safety-sensitive work sites were the least likely to have EAPs. Also, work sites with unions were significantly more likely to have EAPs than those without unions ($p < .00001$). The next set of variables included continuous measures where differences between means were assessed using t -tests (see Table 3). Work sites with EAPs were significantly larger, had significantly fewer minorities, were more likely to be unionized, and had less controlling management cultures than those without EAPs. Finally, a logistic regression analysis was conducted to assess which factors were most important in predicting the presence of an EAP, controlling

Table 2
Factors Related to Employee Assistance Programs (Categorical Variables)

Variable	Values	Percent with EAPs % (n)	Chi-square significance ($p =$)
U.S. head office	Yes	73.9 (51)	.290
	No	66.8 (376)	
Has labour union	Yes	79.3 (218)	< .00001
	No	58.5 (107)	
Has drug testing program	Yes	71.7 (66)	.512
	No	66.9 (361)	
Safety-sensitive work sector	Primary resources, Construction, Transportation	61.0 (83)	< 0.0001
	Manufacturing, Wholesale trade	67.3 (138)	
	All other sectors	70.9 (207)	

Table 3
Factors Related to Employee Assistance Programs (Continuous Variables)

Variable	EAP	Mean (<i>n</i>)	T-test significance (<i>p</i> =)
No. employees in Canada	Yes No	3,995.30 (377) 4,379.57 (163)	.734
No. employees at work site	Yes No	634.88 (395) 217.04 (170)	< .00001*
% Goods and services to U.S.A.	Yes No	13.43 (320) 16.39 (140)	.295*
% Unionized	Yes No	51.89 (325) 31.92 (133)	< .0001
% Employees women	Yes No	42.72 (288) 44.41 (124)	.580
% Employees under 30 years of age	Yes No	27.55 (267) 31.18 (114)	.111
% Employees over 55 years of age	Yes No	15.32 (261) 12.81 (114)	.102
% Employees visible minorities	Yes No	13.20 (233) 21.77 (112)	< .01
Level of management control	Yes No	6.06 (313) 18.15 (126)	< .000001
Level of employee involvement in decision making	Yes No	13.51 (314) 12.96 (126)	.057
Level of worker drinking	Yes No	5.89 (312) 5.91 (126)	.947*

Note. *Unequal variance estimate.

for covariates. All variables that were significant or close to significant (i.e., $p < 0.1$) in the bivariate analyses were entered into a model. In the multivariate model, three variables were significantly related to EAPs: unionization, fewer visible minorities, and less management control (see Table 4).

Similar analyses were conducted to assess the best predictors of having an established drug testing program. The provinces of British Columbia and Alberta were the most likely to have drug testing programs, whereas Ontario was the least likely (Table 5). Work sector was significantly related to the

Table 4
Logistic Regression Analysis Variables Regressed Onto EAP Versus No EAP

	Significance ($p =$)	OR
Safety-sensitive workplace		
High	.416	1.32
Medium	.162	.64
Low (reference group)	.113	
Number of employees	.743	1.00
Unionized	.001	2.62
Fewer visible minorities	.021	1.01
Employee involvement	.112	.92
Less management control	.001	1.14

Note. OR = odds ratio.

Table 5
Factors Related to Drug Testing Programs (Categorical Variables)

Variable	Values	Percentage with drug testing program % (n)	Chi-square significance ($p =$)
U.S. head office	Yes	20.3 (14)	.341
	No	13.9 (78)	
Has labour union	Yes	12.4 (34)	.484
	No	15.3 (28)	
Safety-sensitive work sector	Primary resources, Construction, Transportation	44.4 (60)	$p < .001$
	Manufacturing, Wholesale trade	9.8 (20)	
	All other sectors	4.1 (12)	

presence of a drug testing program. As expected, companies in the safety-sensitive sectors of transportation/communications/utilities, construction, and primary resources were the most likely to have testing programs. In Table 6, only two variables were significantly ($p < .05$) different in relation to the existence of a drug testing program: the percentage of goods delivered to the U.S., and the percentage of men in the workplace. Work sites with drug testing programs delivered more goods to

Table 6
Factors Related to Drug Testing Programs (Continuous Variables)

Variable	Drug testing program	Mean (<i>n</i>)	T-test significance (<i>p</i> =)
No. employees in Canada	Yes	4,718.44 (78)	.602
	No	3,951.32 (461)	
No. employees at work site	Yes	553.27 (83)	.709
	No	488.35 (481)	
% Goods and services to U.S.A.	Yes	23.18 (62)	< .01
	No	12.95 (398)	
% Unionized	Yes	39.45 (62)	.211
	No	47.02(395)	
% Employees men	Yes	79.91 (53)	< .000001*
	No	53.35 (358)	
% Employees under 30 years of age	Yes	23.82 (50)	.070
	No	29.42 (330)	
% Employees over 55 years of age	Yes	16.57 (49)	.275
	No	14.27 (325)	
% Employees visible minorities	Yes	13.25 (42)	.401
	No	16.36 (303)	
Level of management control	Yes	17.14 (63)	.323
	No	16.58 (375)	
Level of employee involvement in decision making	Yes	12.79 (62)	.828
	No	13.45 (377)	
Level of worker drinking	Yes	5.97 (60)	.079
	No	5.89 (377)	

Note. *Unequal variance estimate.

the U.S., and had more male employees than work sites without drug testing. Overall, work sites in the safety-sensitive work sector delivered 13.2% of their goods to the U.S. Finally, a multivariate logistic regression was conducted to assess which subset of variables was the most accurate predictor of whether a given workplace has a drug testing program. Three variables were significant: degree of safety sensitivity in a work sector, percentage of goods delivered to the U.S., and the province in which the work site is located (see Table 7).

Table 7
Logistic Regression Analysis. Variables Regressed Onto Testing Versus No Drug Testing

Variable	Significance ($p =$)	OR
Safety-sensitive workplace		
High	.000	16.406
Medium	.526	1.659
Low (reference group)	.000	
% Goods delivered to U.S.	.006	1.021
% Males	.129	1.017
% Workers under 31	.200	.984
Worker drinking	.383	.938
Management control	.896	1.007
British Columbia	.001	7.588
Alberta	.003	8.079
Prairies	.857	1.240
Quebec	.103	2.579
Maritimes	.111	4.291
Ontario (reference group)	.009	
Constant	.000	.006

Note. OR = odds ratio.

DISCUSSION

One limitation of this study is that biases due to nonrespondents may have reduced the representativeness of the sample; however, we found that the respondents and nonrespondents were similar in most factors, with the exception being work sector. Specifically, workers in governmental agencies were most likely to respond and those in the transportation and communications sector least likely to respond. It is possible that nonresponse is related to both management styles and the existence of a drug testing program, which could have influenced our findings against our hypotheses. We also drew an extra 20% of work sites from the work sector of transportation and communications in order to increase our sample size of companies with drug testing programs (i.e., increase our statistical power). A limitation of this approach is that the over-sampled work sites may not be representative of all work sites with drug testing programs.

Another limitation of this study is that some work sites had both an EAP and a drug testing program, and these work sites were not treated as a separate group because the numbers were too small for valid statistical comparisons. Analyses were conducted separately on presence and absence of an EAP or drug testing program. As noted in the results, since no statistical relationship existed between the presence of EAPs and drug testing programs, the approach used in this study is likely valid. Future research should separately address the characteristics of work sites with both an EAP and a drug testing program, and those with only one program.

These results, which reveal the best predictors of work sites with EAPs, are consistent with the theory that EAPs are a benefit for more privileged employees. This conclusion is based on our observations that unionized work sites and those with a less hierarchical management style were the most likely to have an EAP, based on the multivariate logistic regression analysis. The multivariate analysis takes into consideration that the independent variables may be intercorrelated, and identifies the unique variation of each variable in predicting the presence of an EAP or drug testing program. Another finding that was not specifically hypothesized was that companies with EAPs had significantly fewer visible minorities than work sites without EAPs. The results of this study are consistent with observations of minorities being underserved in other jurisdictions (Chima, 1999; Jackson & Greene, 2002; Karuntzos et al., 1998), and indicate that EAPs are a privilege that benefits already advantaged groups.

An unanswered question is, "How does this uneven distribution of EAPs affect mental health and substance abuse issues in Canada?" Equal access is a fundamental concept of public health care in Canada, yet when the business sector adopts health programs, this fundamental value of Canadian public health policy is challenged. Certain groups, such as visible minorities, are underrepresented. Findings from this study suggest that the existence of an EAP in a workplace is related to less hierarchical management styles, greater unionization, and less visible minorities. Companies with less hierarchical management styles permit decision making among lower ranked employees and produce more decisions that have a broader base of approval.

Some findings suggested that the origins of drug testing are related to social control and geopolitical factors. Specifically, drug testing programs varied significantly by province and by destination of goods to the U.S., while controlling for other factors, such as being in a safety-sensitive sector. Drug testing programs were more frequent in Alberta and British Columbia (BC). Alberta is long known as Canada's conservative province, and the Minister of Labour for this province has advocated for more workplace drug testing ("Random testing," 2005). In BC, governments have not endorsed such programs and, in fact, the government is known for harm reduction initiatives at the municipal (MacPherson, 2001) and provincial levels (BC Ministry of Health, 2005). The high prevalence of drug testing programs in BC may be a backlash from private industry toward this orientation. We might also speculate that the finding that companies which deliver a greater percentage of goods to the United States are more likely to have drug testing programs is a reflection of American legislative initiatives endorsing drug testing, characterized by the war on drugs. Clearly, this latter approach emphasizes deterrence.

Our hypotheses that companies with drug testing will more likely have hierarchical management styles and less democratic work sites were not confirmed. It appears that other factors have a greater impact on the establishment of drug testing programs than the type of management culture. Certainly, it appears that safety is one rationale of companies, based on the findings that a significantly greater proportion of companies in the safety-sensitive work sectors had drug testing programs, although these programs have not been demonstrated to improve safety (Macdonald, 1997; Kraus, 2001).

Based on this data set, with an additional sample of work sites in the transportation and communications sector, EAPs are much more common than drug testing programs: 67.6% of all work sites had an EAP compared to only 14.6% with a drug testing program. Our prior research with a random

sample of work sites indicated that about 10.3% of Canadian work sites have drug testing programs (Macdonald et al., 2006). These findings suggest that the overall approach of Canadian companies is directed more toward nonintrusive treatment rather than deterrence-based approaches.

RÉSUMÉ

Cette étude examine les caractéristiques des lieux de travail associés à l'établissement des Programmes d'aide aux employés (PAE) et des programmes de dépistage de drogues. L'échantillon comprenait 633 directeurs et directrices de ressources humaines aux lieux de travail avec au moins 100 employés et employées, représentant toutes les régions du Canada. Ils ont complété un questionnaire à propos des caractéristiques de leur lieu de travail et les genres de programmes disponibles (taux de réponse = 77,8%). Les lieux de travail avec les PAE avaient significativement moins ($p < ,01$) de minorités visibles, une plus grande probabilité d'être syndicalisé ($p < ,0001$) et des modes de gestion moins hiérarchisés ($p < ,00001$) en comparaison avec les lieux de travail sans PAE. Pour les programmes de dépistage de drogues, on trouvait des différences significatives au niveau interprovincial ($p < ,00001$) pour les lieux de travail qui fournissent des biens aux États-Unis ($p < ,01$) et pour ceux qui travaillent dans les secteurs de l'économie où la sûreté est prioritaire ($p < ,00001$). Ces résultats suggèrent que la présence d'une PAE est une indication d'un avantage social et est plus répandue dans les lieux de travail qui ont des modes de gestion non hiérarchisés. L'établissement des programmes de dépistage de drogues est surtout associé aux enjeux géopolitiques et aux préoccupations liés à la sécurité.

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ORGANIZATIONAL CHARACTERISTICS OF EAPs AND DRUG TESTING PROGRAMS

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