

Lifestyle habits, substance use and predictors of job burnout in professional working women

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This study explores differences in self-reported lifestyle habits, substance use (alcohol, drugs and smoking) and predictors of job burnout in a sample of 879 professional working women employed in dental health offices in a cross-sectional design. Job burnout was measured using the Maslach Burnout Inventory (MBI) and self-reported substance use and lifestyle habits were assessed using the Stress Assessment Profile. Self-reported drinking, smoking and drug use were only modestly correlated with each other in this sample. Employed women with higher levels of drinking reported significantly lower quality overall lifestyle practices, eating/nutrition habits, and more frequent use of avoidant coping strategies in the face of work and life hassles compared to non-drinkers. Women who smoked also reported significantly lower overall lifestyle practices and eating/nutrition habits. Those who reported using drugs for recreational purposes reported significantly greater hassles, poorer lifestyle habits, a less hardy outlook on life, and more frequent use of dysfunctional coping strategies. Although women who reported using drugs experienced significantly higher interpersonal burnout (depersonalization) compared to non-drug users, in general, self-reported substance use was not significantly related to job burnout. After controlling for age and psychological distress, perceived stress, type A behaviour, cognitive hardiness and lifestyle habits significantly contributed to predictions of job burnout in multiple regression analyses. Despite methodological limitations, the prevalence of substance use found in this study supports previous research findings. Professional working women who practise poor lifestyle and health habits appear to be at risk of experiencing job burnout.

1. Introduction

A growing body of research supports a consistent, albeit modest, relationship between psychosocial and organizational variables and diverse physical and psychological health outcomes in employed men and women (cf. Taylor 1990, LaCroix and Haynes 1987, Rabkin and Struening 1976). Specific organizational stressors such as heavy job demands, role ambiguity, role conflict, poor communications between supervisors and employees, inadequate training, dysfunctional support systems, interpersonal conflict, inability to reach career goals, lack of feedback from supervisors, and lack of control over decision-making have been consistently shown to be associated with various productivity and diverse health problems (Beehr and Newman 1978, Frew and Brunning 1987, LaCroix and Haynes 1984, Karasek *et al.* 1981). Of growing interest are the roles of individual mediating factors including social support, type A behaviour, coping style, personality hardiness and lifestyle practices with psychological well-being and job burnout.

For example, several reviews of the literature on social support (e.g. LaRocco *et al.* 1981),

ing greater type A behaviour generally report more workload than do those expressing less type A behaviour (Burke and Weir 1980, Ivancevich *et al.* 1982). In addition to workload, type A people tend to report higher levels of stress (Howard *et al.*, 1977) and role conflict (Kelly and Houston 1985, Ivancevich *et al.* 1982). Furthermore, Type A subjects report working longer hours and more overtime (Caplan and Jones 1975, Kelly and Houston 1985) and travel more on the job (Howard *et al.* 1977). Additionally, in both a student and employee sample, type A behaviour has been found to be significantly associated with each of the job burnout dimensions (*cf.* Nowack and Hanson 1983, Nowack 1987).

Thus, type A behaviour as a distinct coping style in response to perceived work, and life stressors would appear to contribute to feelings of emotional exhaustion, poor interpersonal relations and lack of personal and professional accomplishment. To date, few studies have directly explored the relationship between individual coping styles and measures of job burnout, although an extensive literature exists investigating the role of coping with other health outcomes (e.g. Taylor 1990, Nowack 1989). Pierce and Molloy (1990) found that higher levels of job burnout were significantly correlated with more frequent use of regressive coping strategies. In their study, Pierce and Molloy (1990) defined and measured regressive coping behaviours as attempts to deny, minimize or avoid stressful situations perceived to be challenging or threatening.

Additionally, lifestyle practices and specific health habits have also been individual factors long hypothesized to be associated with diverse health outcomes as well as job burnout. For example, Nowack *et al.* (1985) found that health habits significantly contributed to predictions of burnout with a student sample, but not in a longitudinal study of 146 employees when a composite measure of job burnout was used (Nowack 1987). Unfortunately, separate analyses with the individual burnout dimensions of emotional exhaustion, depersonalization and personal accomplishment were not reported, making the findings of this study difficult to fully interpret. In general, lifestyle practices and health behaviours would appear to be one of the most modifiable, and arguably most important of all individual stress-illness mediators.

In 1979 the Department of Health, Education and Welfare released the Surgeon General's report on health habits and disease prevention. Several major categories were singled out as important health-damaging behaviours related to lifestyle practices that appear to play a role in a variety of illnesses and diseases. These lifestyle behaviours include stress management, smoking, substance abuse, lack of physical activity, preventive hygiene and poor eating/nutritional habits. For example, recent household surveys conducted throughout the United States suggest that at some time during the life cycle, 4-8% of the population may abuse drugs, 14-20% may abuse alcohol, and 13-20% may succumb to various forms of mental disorder requiring treatment (Robins *et al.* 1984). It has been estimated that between 5% and 10% of the general population suffers from alcoholism, and that 3-7% of the employed population uses drugs (Quayle 1983). As a consequence, US businesses are estimated to suffer annual productivity losses approaching \$36.6 billion dollars. Part of these expenditures result from substance abusers' 16-fold greater absenteeism and 400% greater accident rate as compared with the non-abusing employed population (Masi 1984). Specifically in the area of corporate injuries and fatalities, 40% and 47% respectively may be attributed to alcohol and other substance abuse (Quayle 1983).

The data suggest that there is a great deal of alcoholism, drug abuse and even mental disorders in the general population. Those in the workforce who manifest such disorders are productivity and cost burdens at their places of business. Since the advent of the Rehabilitation Act of 1973, significant segments of the managerial community have been largely restrained from simply discharging employees whose absenteeism, injury rate and productivity are inadequate. Instead, managers are being forced to consider the possibility that employee

Recent evidence suggests that consumption of alcohol leads to more extreme social behaviour, inflates self-evaluations, and results in a general impairment of perception and thought (Steele and Josephs 1990). Furthermore, despite well-known adverse health consequences associated with drinking, individuals who drink more tend to deny the potential harm that may result from alcohol consumption (Hansen *et al.* 1991). Findings from Hansen *et al.* (1991) support the hypothesis that men and women at risk of experiencing common negative consequences of drinking perceive themselves to be immune. These findings have important implications for identifying, assisting and treating professional working women who may be abusing alcohol and other drugs.

This study explored specific psychosocial factors and health habits (including self-reported alcohol, cigarette, prescription/non-prescription drug use) associated with predictions of job burnout in a large cross-sectional national sample of employed women in the dental health profession ($n = 879$). Specifically, this study compared differences in work and life hassles (stress, cognitive hardiness, type A behaviour, lifestyle practices, health habits, coping strategies and job burnout between high and low users of alcohol, nicotine and other non-prescription drugs. Consistent with previous research, it was hypothesized that women reporting greater use of these substances would experience significantly higher perceptions of hassles (stress), less frequent practice of health-enhancing habits and practices (e.g. physical activity/exercise, eating/nutritional practices), more frequent use of dysfunctional coping strategies (e.g. self-blame, detachment from social supports), and higher levels of job burnout (emotional exhaustion, depersonalization, lack of accomplishment) compared to non-users.

2. Methods

2.1. Participants and procedures

Participants for this study were professional and administrative staff working in orthodontic offices throughout the United States who were asked to participate in a research study investigating the relationship between stress, lifestyle habits and job burnout. Data for this study are part of a broader research project reported elsewhere (Nowack *et al.* 1992). An initial inquiry letter and questionnaire were distributed through the mail to 3178 employees with a cover letter explaining the purpose of the study and assuring confidentiality of the results. In exchange for their cooperation, each respondent received a computerized feedback report summarizing the results of the stress and health risk appraisal. A total of 1067 questionnaires were returned, giving a response rate of 33.5%. The final sample included 82.4% women and 17.4% men, with a mean age of 35.75 ($SD = 9.86$). A total of 185 (17.5%) were orthodontists, 127 (11.9%) were office managers, and 751 (70.6%) were office staff. Only data for women (professional and office staff) were included in the final analysis of this study. The mean age was 33.82 ($SD = 8.87$) with a range from 20 to 65 years of age. In this sample only 0.9% of working women were practising orthodontists, 14.5% worked as office managers, and 84.6% worked in a variety of professional and office staff positions.

Independent variables. Separate measures of hassles, lifestyle behaviours and coping style were assessed using a comprehensive questionnaire (Stress Assessment Profile) containing 123 items, that has shown adequate reliability (average test-retest reliability over a 2-week period is 0.82) and validity with health and organizational outcomes in previous studies (Nowack 1987, 1989, 1991). A complete description of the development and psychometric properties of this measure has been reported previously (Nowack 1990).

The questionnaire assesses the following scales:

Measurement of self-reported substance use. Asking men and women how often they use alcohol, drugs or cigarettes in response to work and life stress would appear to be the most straightforward research technique and is, in fact the predominant one. This technique assumes that individuals are willing to be honest in their self-reports (Crowne and Marlowe 1964). Recent evidence suggests that women are more likely than men to report symptoms of physical and emotional distresses (Pennebaker 1982) and are more likely to interpret feelings of malaise and distress as psychiatric problems requiring treatment (Kessler *et al.* 1981). It would be reasonable to assume that women would be more likely than men to acknowledge distress as a motivator for substance use despite evidence suggesting that most individuals possess an overly positive, albeit unrealistic, view of themselves (Taylor and Brown 1988).

Three separate items from the Stress Assessment Profile (Nowack 1990) were used to assess self-reported alcohol consumption, cigarette smoking and use of other drugs for recreational purposes.

- (1) *Alcohol consumption:* alcohol consumption was assessed by a single item that asked frequency of alcohol consumption (e.g. wine, whisky, beer, etc.) on a 1 to 5 scale where 1 = Non-drinker; 2 = Consumed less than three alcoholic beverages only occasionally (e.g. weddings, birthday celebrations); 3 = Consumed one to three alcoholic beverages in 24 hours several times/week; 4 = Consumed more than three alcoholic beverages in 24 hours several times/week; and 5 = Consume more than three alcoholic beverages every day.
- (2) *Cigarette smoking:* smoking status was assessed by a single item on a 1 to 5 scale where 1 = Non-smoker; 2 = one half pack of 20 per day; 3 = three-quarters of a pack per day; 4 = one pack per day; and 5 = More than one pack per day.
- (3) *Drug use:* use of prescription and non-prescription drugs for recreational or non-medicinal purposes (e.g. cocaine, marijuana, stimulants, depressants), other than alcohol, was assessed using a 1 to 5 frequency scale where 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often; and 5 = Always.

Dependent variables. The construct of burnout has been defined and conceptually linked to the stress-illness relationship in a number of recent studies (Maslach and Jackson 1981). Burnout has been defined as being an outcome of work and life stress characterized by self-perceptions of emotional exhaustion, cynicism, negativity, low commitment, fatigue, low morale, resistance, detachment and low productivity. Burnout was measured using the *Maslach Burnout Inventory* (MBI; Maslach and Jackson 1981).

The MBI assesses the three burnout dimensions of emotional exhaustion (EE), depersonalization (DP) and personal accomplishment (PA). Estimates of internal consistency (Cronbach's alpha) range from 0.90 for EE, 0.79 for DP, and 0.71 for PA. Test-retest reliabilities range from 0.65 to 0.82 for these scales. The MBI has been found to be significantly associated with a variety of performance and health outcomes, including job satisfaction, absenteeism, psychological distress and organizational commitment in recent studies (Maslach and Jackson 1981). Recent research has shown consistent evidence for the construct validity of the MBI, particularly for emotional exhaustion (Koeske and Koeske 1989, Lee and Ashforth 1990, Arthur 1990).

3. Results

A summary of the means, standard deviations, reliabilities and intercorrelations among the study variables is given in table 1. Each of the job burnout scales was significantly associated with each of the psychosocial variables included in the study.

Table 2. Prevalence of self-reported drinking, smoking and drug use in professional working women ($n = 879$)

	Number	Percentage
<i>Self-reported drug use</i>		
Always	7	0.8
Often	10	1.1
Sometimes	17	1.9
Rarely	48	5.5
Never	796	90.7
<i>Self-reported cigarette smoking</i>		
More than 1 pack	5	0.6
One pack of 20 a day	19	2.2
Three-quarters pack a day	21	2.4
One-half pack a day	69	7.8
Non-smoker	765	87.0
<i>Self-reported alcohol consumption</i>		
More than three drinks/day every day	3	0.3
More than three drinks/day several times/week	18	2.1
One to three drinks/day several times/week	117	13.3
Occasional drinker	505	57.5
Non-drinker	236	26.8

The association between drinking, smoking and self-reported drug use in this sample of professional working women was moderate with average correlations between these scales ranging from 0.14 to 0.22 (all p values < 0.001). With respect to cigarettes and non-alcoholic drug use, only 13.0% of the sample reported to be smokers and 9.3% admitted to using non-prescription or prescription drugs for recreational purposes. Finally, with respect to alcohol consumption, 26.8% reported that they never drink, 57.5% drink only infrequently or on special occasions, and 15.7% drink from one to three drinks within a 24-hour period several times a week to every day. Table 2 summarizes these self-reports of substance use as assessed in this study.

One-way analysis of variance (ANOVA) was used to determine differences in stress, lifestyle habits, coping style, and job burnout between 'users' and 'non-user' groups. Table 3 summarizes these analyses. However, for analysis with alcohol consumption, three separate groups were delineated: (1) non-drinkers; (2) occasional drinkers; and (3) moderate drinkers.

With respect to cigarette smoking, significant differences were observed with respect to overall lifestyle habits ($F = 22.35, p < 0.001$) and eating/nutritional practices ($F = 13.43, p < 0.001$). Women who drank the most reported significantly worse overall lifestyle habits ($F = 7.00, p < 0.001$), eating and nutritional practices ($F = 4.41, p < 0.05$), and less frequent use of an avoidant coping style ($F = 3.92, p < 0.05$). Thus, professional working women who reported the highest drinking levels also expressed a greater tendency towards preoccupation with work and life stressors.

Women who reported using non-prescription or prescription drugs, other than alcohol, for recreational purposes reported significantly higher levels of hassles, less frequent practice of overall lifestyle habits, lower cognitive hardiness and more frequent use of dysfunctional coping strategies in the face of work and life stress (less frequent use of intrusive positive self-talk and avoidant strategies; greater use of negative intrusive self-talk). Additionally, women who reported using drugs also expressed greater job burnout on the depersonalization scale

Table 4. Results of multiple regression analyses with job burnout as the dependent variables ($n = 1067$)

Variable	RSQ	RSQ Change	F
<i>Emotional exhaustion</i>			
Age, psychological well-being	0.17	0.17	89.17**
Stress	0.24	0.07	74.20**
Type A behaviour	0.29	0.05	52.46**
Hardiness	0.31	0.03	33.85**
Lifestyle habits	0.32	0.01	7.62**
Social support		2.49	
Avoidant coping style		1.01	
Problem-focused coping		0.89	
Negative coping style		0.71	
Positive coping style		0.64	
<i>Depersonalization</i>			
Age	0.09	0.09	44.12**
Hardiness	0.14	0.05	44.87**
Type A behaviour	0.17	0.03	29.72**
Social support	0.18	0.01	10.71*
Stress	0.19	0.01	5.93*
Avoidant coping style		1.25	
Positive coping style		0.04	
Lifestyle habits		0.01	
Problem-focused coping		0.01	
<i>Personal accomplishment</i>			
Age, psychological well-being	0.19	0.19	102.15**
Positive coping style	0.25	0.06	54.733**
Hardiness	0.27	0.02	28.25**
Social support	0.29	0.02	16.31**
Problem-focused coping	0.30	0.01	11.02**
Avoidant coping style		2.24	
Type A behaviour		1.30	
Hassles		0.29	
Lifestyle habits		0.18	
Negative coping style		0.18	

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

hardiness and dissatisfaction with social support experienced the greatest levels of burnout on the job.

4. Discussion

This study investigated differences in work and life hassles, lifestyle practices, health habits, type A behaviour, hardiness, coping style and job burnout in 879 professional working women in the dental health field as a function of self-reported substance use (smoking, drinking, other drugs). Three major findings can be summarized in this sample of professional working women: (1) except for somewhat lower smoking prevalence rates, self-reported use of alcohol and other drugs appear to be generally consistent with previously published research and national surveys for working women; (2) high levels of self-reported substance use (smoking, drinking, other drugs) were significantly associated with poor overall lifestyle practices and eating/nutritional habits; and (3) high self-reported substance use of alcohol and cigarettes were not significantly associated with measures of daily life hassles or job burnout.

of the regression analyses with job burnout, it is possible that both predictor and outcomes measures used in this study are confounded by neuroticism. Previous research has demonstrated that chronically worried and distressed individuals (i.e. high neuroticism), relative to more emotionally stable individuals, consistently report high levels of psychosomatic complaints, even though they are no more likely to experience actual physical illness (Watson and Clark 1984). That is, there is a consistent and strong association between neuroticism and illness complaints, but not actual illness *per se*. Future research using self-report outcomes should attempt to control for the nuisance variable of neuroticism whenever possible, to ferret out psychological *versus* organic contributors to health and well-being. It should be emphasized that self-reports are a convenient starting point for demonstrating that psychosocial characteristics may have some relevance to health. However, given the limitations of self-report measures, they should not be relied upon too heavily as criteria for either establishing or disconfirming associations with physical and psychological health status.

It has been mentioned previously that 4–8% of the adult population may abuse drugs, and that 95% of all problem drinkers are employed (or employable), comprising approximately 10% of the workforce (Robins *et al.* 1984, Kinney and Leaton 1991). Furthermore, although women are more likely to be non-drinkers than men, it is estimated that 3% of all women are heavy drinkers (Kinney and Leaton 1991). Except for somewhat lower smoking prevalence rates, the present findings (table 2) appear to be generally consistent with previously published research on self-reported drug and alcohol use in professional working women (cf. Beiner 1987, Lindbeck 1972, *Heart Facts* 1989). Despite the methodological limitations and criticisms summarized above, it would appear that the results of this study do contribute to the growing literature on substance use in employed professional women.

In this study, poor overall lifestyle practices were consistently and significantly associated with greater self-reported substance use (table 3). Although causality cannot be determined, it appears that women who drink, smoke and use other drugs do not appear to practise many health-promoting behaviours on a day-to-day basis (e.g. getting regular exercise, maintaining healthy eating and nutritional habits, getting adequate rest, relaxation and sleep). Regardless of the direction of causality, it is certainly important to note that poor lifestyle habits combined with a substance problem will have both direct and indirect effects on morbidity and mortality in women. The deterioration of health habits in long-term substance abusers has been a well-known and documented fact (e.g. Kinney and Leaton 1991, Beiner, 1987). However, women who smoke and drink at even low levels might also be at risk for premature death and disability if they do not exercise regularly, monitor their intake of saturated fats and cholesterol, and do not obtain routine medical checkups. In summary, the findings of this study suggest that women who moderately smoke, drink or use other drugs are unlikely to be practising health-promoting habits and behaviours on a day-to-day basis.

In this study, little evidence was found of an association between daily hassles, job burnout and self-reported substance use (table 3). However, women who reported using non-alcohol-related drugs did report significantly higher levels of daily life hassles and depersonalization than those who did not. Thus, women in this study who expressed feelings of being cynical towards others, less customer-service-oriented, less caring, and more critical of others tended to be those reporting use of non-prescription and prescription drugs for recreational purposes. It was not possible to determine the exact type of drugs that were taken (prescription *versus* non-prescription) or location of use (home *versus* office) in this study. Future research should replicate this basic study with multiple measures of work and home stress and also include more sensitive and valid measures of substance use and abuse.

The lack of an association between self-reported smoking, alcohol use and daily life hassles in the present study supports the findings of Corcoran and Parker (1991), who found little or

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