

Occupational Stress and the Gender Gap: An Issue of Control?

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Abstract

This study examined gender differences in reported stress levels among 245 employees occupying similar Positions. Male employees reported significantly lower stress levels than did female employees. Among females, but not among males, stress levels were related to the Desire for Control. The results suggest that low control constitutes a particular stress factor for women.

Introduction

Occupational Stress and the Gender Gap

This study examines gender differences in occupational stress with particular focus on how stress relates to control. Stress and its related problems have become major organizational issues in the 80s. Coping is an important part of the stress process, and this study relates to one such coping factor, the individual employee's desire for control.

There are more women in paid occupations today than ever before. The percentage of women in the work force has increased from 28% in 1947 to almost 50% today. This change to new and previously unfamiliar roles seems to have brought working women, more than their share of work-related stress (Cohen, 1976; Cooper & Davidson, 1982; Golembiewski, Munzenrider & Stevenson, 1986; Lennon, 1987; Sevelius, 1986; Zappert & Weinstein, 1985). The present study differs from most other studies of gender differences in work stress because it investigates reported levels of job stress among male and female employees in the same positions. Therefore, the stress differences under study here do not arise from occupational differences between men and women.

Coping

The importance of coping is shown in the following model, which explains stress as a three-part process, consisting of:

1. The STRESSOR or STIMULUS (for example, an urgent deadline).
2. COPING, which is anything the person feels, thinks or does when dealing with a stressor or stimulus.
3. STRESS SYMPTOMS (physiological, psychological, or behavioral).

Any stimulus can be stressful, depending on the situation. Stress occurs when a person does not cope effectively With incoming stimuli of whatever nature. Successful cognitive coping can consist of strong feelings of being in control of time and resources. Stress symptoms represent less than optimal functioning, either psychologically, physiologically, or behaviorally. The outcome of the process affects general well being as well as employee performance. This study focuses on reported levels of occupational stress among male and female employees and on how these differences relate to coping.

Control and Desire for Control

The feeling of being in control is a powerful coping factor, because control offers the possibility of making changes for the better. Control can minimize stress (Fisher, 1984; Miller, 1979), prevent the occurrence of illness (Suls & Mullen, 1981), and even be life prolonging (Rodin & Langer, 1977). Perlmutter and Monty (1977) conclude their review of the importance of Perceived control by saying that either the exercise of control or the perception of potential for control generally benefits performance in a wide variety of situations.

The relationship between control and stress has also been demonstrated in organizational contexts. Perceptions of personal control can have a positive influence on performance (Bazerman, 1982). In a recent meta-analysis of perceived control, Spector (1986) found that higher levels of perceived control were associated with higher levels of job satisfaction, commitment, involvement, performance and motivation, and with low levels of physical symptoms of stress, emotional distress, role stress, absenteeism and turnover. In short, perceived control is a coping mechanism which can lead to higher performance in organizations because it moderates stress.

Control may be a more important coping mechanism to some individuals than to others. Some people may have a more intense desire to exercise control than others. Burger and Cooper (1979) suggest the existence of a motive to control the events in one's environment. They refer to this as the "desire for control," and describe persons high in desire for control as assertive and generally seeking to influence others when such influence is advantageous. Also, they may prefer to avoid unpleasant situations by manipulating events to ensure desired outcomes. Persons low in desire for control are exactly the opposite, being generally non-assertive, passive, indecisive, and much less likely to attempt to influence others.

Since stress can result from an imbalance between the amount of control which a person

desires and the amount of control actually available, people with a high desire for control can be expected to be particularly frustrated and stressed if a situation does not offer them the control they desire. Those with a lower desire for control, on the other hand, might experience lower stress levels in a similar situation. This is supported by a laboratory study by Burger and Arkin (1980), who found that subjects high in desire for control performed significantly less effectively in a stressful situation than did subjects low in desire for control. However, a review of the literature shows that this relationship has not been tested in a field study of organizational stress. A better understanding of the relationship between desire for control and stress may offer a key to the understanding of some individual stress differences.

The Current Study

The purpose of this study was to investigate reported levels of occupational stress among men and women in the same positions and to investigate the relationship between reported stress levels and the desire for control. The hypotheses tested are the following:

H1: When men and women hold similar positions, reports of occupational stress levels are moderated by gender in such a way that women report higher stress levels than men.

H2: Individuals high in desire for control report higher levels of stress than individuals who are low in desire for control.

Method

Participants

A questionnaire was sent to 400 employees (clerks, technicians, counselors, assistant directors, associate directors, and directors) at financial aid offices at 25 post-secondary schools in California, including the University of California, California State University, community colleges, four-year independent colleges, and proprietary

and vocational schools. Of the 400 questionnaires, 245 were returned for a response rate of 61%, with 187 female and 58 male respondents. The distribution of male and female respondents corresponds roughly to the actual distribution of male and female jobholders.

Instruments

A stress questionnaire was developed specifically for this study (see appendix). Thirty-nine stress items were identified through a total of fifteen pilot interviews with employees in each of the six positions listed above. The questionnaire was pilot-tested and appropriate changes made. There were five stress categories: 1) dealing with management, 2) workload, 3) dealing with clients, 4) rules and regulations, 5) other. Two questions were asked for each stressor: "How severe is it?" and "How frequently does it occur?" All questions were on 5-point Likert-type scales. The score for each item was calculated by multiplying the score for severity with the frequency score. A total stress score for each participant was obtained by summing up the stress scores for all 39 questions.

Desire for control was measured by a scale developed by Burger and Cooper (1979). The scale consists of 20 questions investigating how much control an individual desires to have over the environment. All 20 questions are on 7-point Likert-type scales. The authors report good construct validity for the measure as well as an internal reliability of 0.80 and a test-retest reliability of 0.75. Males tend to score higher on this scale than females.

Analysis and Results

To test Hypothesis 1, an ANOVA was performed with total stress as the dependent variable, and using gender and job category as the independent variables (Table 1).

The analysis shows that the female employees report significantly higher stress levels than the

male employees ($p < .05$). Hypothesis 1 was thus supported. An inspection of Table 2 reveals that the stress levels are higher for women than for men in all six job categories. The stress measure was tested for reliability and showed an alpha coefficient of 0.94.

To test Hypothesis 2, a correlation was performed between total stress scores and total scores on the scale measuring desire for control. The correlation for the entire sample of 245 individuals was not significant at the .05 level. Therefore, Hypothesis 2 was not supported.

However, when this correlation analysis was performed for males and females separately, a significant Positive relationship was found for the women ($p < 0.05$), showing that the women with a higher desire for control expressed higher levels of stress. There was no relationship between stress and desire for control for the men in the study. Thus, this result provides partial support for Hypothesis 2 (see Table 3).

Overall, the men in the study had a higher desire for control than the women, but for the men, this was unrelated to stress. The gender difference in desire for control approached significance, a finding similar to one already reported by the authors. Their scale was tested for reliability in this study and showed an alpha coefficient of .78, which is close to the internal consistency of .80 reported by Burger and Cooper (1979).

Finally, a factor analysis was performed on the 39 stress items in order to identify the most severe stress factors. This revealed five stress factors with eigenvalues above 1, roughly corresponding to the five categories on the stress questionnaire. In order of severity, the five stress factors were: 1) workload, 2) dealing with rules and regulations, 3) dealing with clients, 4) dealing with management, and 5) dealing with other offices on campus. In all these categories, women expressed higher levels of stress than men.

Table 1
Analysis of Variance of Stress by Gender and Position Title

Source of variation	Sum of Squares	df	Mean Sq	F	p <
Main effects	186006.054	6	31001.009	1.39	.220
Gender	107408.451	1	107408.451	4.817	.029*
Position	102359.572	5	20471.914	.918	.470

* p < .05

Table 2
Means and N,s

	Male	Female	Total
Clerks	266.30 (10)	303.67 (49)	297.34 (59)
Technicians	319.00 (3)	348.28 (40)	346.23 (43)
Counselors	328.33 (18)	332.51 (45)	331.32 (63)
Assistant Directors	126.50 (4)	345.04 (17)	304.14 (21)
Associate Directors	271.60 (5)	376.80 (5)	324.20 (10)
Directors	294.40 (10)	433.60 (5)	340.80 (15)
Total	286.76 (50)	333.50 (161)	322.40 (211)

Table 3
Correlations Between Desire for Control and Stress

	r	n	p <
FOR ENTIRE SAMPLE	0.0868	212	.109
BY GENDER			
Females only	0.1658	162	.02 *
Males only	-0.0142	50	.461

* p < .05

Discussion

Hypothesis 1 was supported: given the same position, female employees reported significantly higher levels of work stress than male employees. This result agrees with most of the literature on the subject which shows that women usually report more work stress than men.

Self-Reports

However, there may be some problems with this finding. One is whether self-reports are meaningful measures of stress. The validity of the Present procedure is supported by recent findings by Spector, Dwyer, and Jex (1988). They compared self-reports of stress-inducing job conditions from job incumbents with data from their supervisors. Convergent and discriminant validities were found for several stressors, including autonomy (control) and workload. Pennebaker and Watson (1988) reviewed the literature on self-reports and physiological measures in the workplace. They make the point that "self-ratings, in and of themselves, represent an important source of information. If people report that they have headaches, are depressed, and under stress, we can assume that there will be some behavioral implications - whether or not blood chemistry corroborates their perceptions" (P. 193).

A second question is whether women are more willing to report stress than men. Some studies have indeed found that there are gender differences in stress outcomes. In a review of 19 studies of sex differences in work stress, Jick and Mitz (1985) concluded that women tend to report higher rates of psychological distress and men are more prone to severe physical illness. However, the stress measurements used here did not address stress symptoms but rather cognitive perceptions of stress. There is as yet no evidence that there are any significant gender differences in self-reports of stress perceptions.

In short, it can be argued that self-reports constitute a fairly reliable stress indicator and

that the present approach represents one type of information about stress, which should of course ideally be corroborated by results from other sources.

Low Control - a Gender Issue?

If self-reports of stress are reasonably valid, the next question is why there is a difference in stress levels between men and women in the same position. The study suggests a relationship which may help explain the gender difference in reports of work stress. Reported levels of occupational stress were positively related to desire for control, but only for women. Although women reported more modest levels of desire for control than men, those women with the highest desire for control also experienced the highest amounts of work stress. For the men, control did not appear as a stress-related issue.

The direction of the causality between stress, desire for control, and actual control is not directly tested in this study, but the implication from the three-step model presented above and from the literature is that lack of control can intensify stress levels, and that this is a particular problem for the women in the work force. Zappert and Weinstein (1985) studied sex differences among MBAs as they related to the impact of work on physical and psychological health. Women were more often bound by inflexible time schedules, unable to control the work flow to their satisfaction, and they had lower health status. In the frequently cited Framingham study, Haynes and Feinleib (1980) found that coronary heart disease rates were twice as high among women doing clerical work as among housewives. They associate this finding with the fact that, compared to men, women experience higher occupational stress for several reasons, including a lack of autonomy and control over their work environment. In a study of full-time employees, D'Arcy et al. (1984) found that women scored higher on measures of psychological distress. However, when perceptions of job attributes (e.g. job

pressure, job opportunity, and job autonomy) were controlled, there were no differences in distress symptoms between men and women. In short, evidence from the literature gives a strong backing for the present interpretation of the relation between stress and desire for control among women.

Implications

With women approaching 50% of the work force, the population would benefit from practical measures toward stress reduction, including employers. This study suggests one such practical measure: redesigning stressful jobs to add more control. A focus group of employees from the financial aid offices under study suggested just that: they advocate several low-cost changes, including flex-time, staggered hours, temporary help, "protected time" when the counter is closed to clients, and "semi-protected time" with limited telephone services. All of these would mean an increase of control over the environment for the employees.

Another possibility would be to test prospective employees' for desire for control and then place qualified employees with a low desire for control in job areas where stress abounds and where minimal control is available. Improved coping can pay off in increased organizational effectiveness and in greater well being among employees.

Finally, the present results suggest that it may be possible to alleviate stress among women by promoting them to positions of more control and responsibility.

Conclusion

The present field study examined occupational stress and desire for control among men and women in the same positions. Women reported significantly higher levels of work stress than men. For the women, occupational stress was strongly and positively related to desire for control, whereas there was no such relationship

for men. Since control is known to have a strong moderating effect on stress levels, this study suggests that at least some of the work stress expressed by women is related to an unmet desire for control. Taken in the context of other evidence cited, an argument can be made that some of the high levels of work stress reported by today's women are related to a missing coping factor - that of control over their working environment.

(Please see Appendix after References)

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Appendix:
Sample Questions from Stress Questionnaire

How Often:

- 0 = Never
- 1 = Rarely
- 2 = More than rarely, but less than occasionally
- 3 = Occasionally
- 4 = More than occasionally, but less than frequently
- 5 = Frequently

How Much Stress:

- 0 = None
- 1 = Minor
- 2 = More than minor, but less than moderate
- 3 = Moderate
- 4 = More than moderate, but less than severe
- 5 = Severe

WORKLOAD

1. Accomplishing the amount of work required during the busiest times of the year.
How often _____ How much stress _____
2. Working with so many details in the processing of an application that it is difficult or impossible to avoid errors.
How often _____ How much stress _____
3. Putting in overtime during the busiest times of the year.
How often _____ How much stress _____
4. Not being able to take vacation time during the busiest times of the year.
How often _____ How much stress _____
5. Being unable to set priorities because there is so much to do all at once.
How often _____ How much stress _____
6. Doing repetitive tasks.
How often _____ How much stress _____
7. Being distracted by interruptions (such as phone calls, for example).
How often _____ How much stress _____
8. Meeting numerous deadlines.
How often _____ How much stress _____
9. Being "behind schedule" and trying to "catch up."
How often _____ How much stress _____
10. Experiencing a conflict between doing high-quality work and getting the work done on time.
How often _____ How much stress _____