
THE RELATIONSHIP BETWEEN OCCUPATIONAL STRESS AND JOB PERFORMANCE AMONG EMPLOYEES OF ACCOUNTING FIRMS: A MEDIATING ROLE OF JOB SATISFACTION

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Abstract:

Employees are one of the most important parts of any organisation. An organisation's performance is based on the performance of its employees. Special attention should be given to identify the factors which affect their performance. Occupational stress is one of the main problems of the organisations now-a-days. Occupational stress not only affects one's personal life but also their professional life. It leads to a decrease in job satisfaction reduces job commitment to the organization and may subsequently result in increased intention to quit. This paper examines the impact of job stress on employees of public accounting firms job performance. The responses of 354 employees of public accounting firms to a survey questionnaire were analysed using structural equation modelling. The structural model comprises measures of job stress, job satisfaction, job commitment and job performance. The results indicate that job stress has a direct and negative impact on levels of job commitment and job satisfaction of the employees of public accounting firms. The cognitive role of job stress has a direct and negative impact on job performance. It was also found that there is an indirect effect of job stress on job performance through job commitment and job satisfaction of employees of public accounting firms.

Keywords: job performance, job satisfaction, job commitment, organizational stress, structural equation modelling, accounting firms

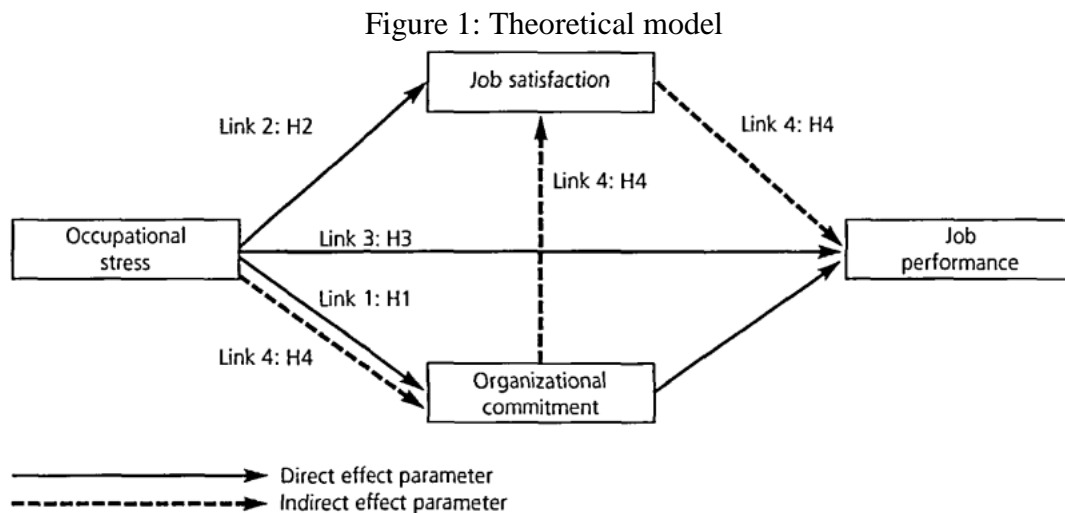
Introduction:

Accounting researchers have long been interested in the impact that job stress has on job performance of employees of public accounting firms (Collins and Killough 1992; Choo, 1986, 1987, 1992, 1995; Smith and Everly, 1990; Bamber and Bylinski, 1988; Collins 1993; Haskins, Baglioni and Cooper, 1990; DeZoort and Lord, 1994).

Most of the studies in the area of job stress in accounting have focused on the direct impact of job stress on job performance of employees of public accounting firms (Bamber and Bylinski, 1988; Choo, 1995). Very less studies have tried to study the factors which mediate the relationship between job stress and job performance. Choo (1995) studied the impact of job stress on judgment performance of auditors. The results showed that judgment performance of auditors improved as time deadline pressure increased from low to moderate levels, but their judgments deteriorated as pressure reached extreme levels. In contrast, Bamber and Bylinski (1988) found that time pressure did not significantly affect auditors' performance in given timelines.

A review of existing literature show that job stress affects emotional intelligence and cognitive role (Driskell and Salas, 1991; Streufert and Streufert, 1981). Job stress can lead to negative emotional reactions, such as anxiety, fear, tension and frustration (Parasuraman and Alutto, 1981; Driskell and Salas, 1991). Earlier studies have suggested that negative

emotional intelligence can lead to job strains, such as job dissatisfaction and low job commitment (Parker and DeCotis 1983; Spector 1998). On the other hand, the cognitive role of job stress may lead employees to pay less attention to tasks which leads to poor performance (Streufert and Streufert 1981).



This study explores these relationships by examining the model shown in Figure 1, which was based on prior research. The model suggested that:

1. Occupational stress has a direct impact on job-related attitudes, such as job commitment and job satisfaction of employees of public accounting firms.
2. Occupational stress has a direct impact on job performance
3. Occupational stress has an indirect impact on job performance through their impacts on job commitment and job satisfaction of employees of public accounting firms.

In the next section, the prior research that led to the proposed job stress model is discussed. Subsequent sections address the research methodology, discuss the results obtained, and define the limitations of the study.

Development of the job stress model:

The first two hypotheses are related to the relationships between job stress, job commitment and job satisfaction. It is recognized that job stress can cause people to experience fear or anxiety, annoyance, tension and frustration (Driskell and Salas, 1991).

Negative reactions like higher job tension and anxiety, cause employees to feel highly dissatisfied with their job. Feelings of frustration in the job, fear and/or anxiety cause employees to feel less committed to their organization. Empirical studies (Choo, 1986, 1995; Wolfgang, 1995; Van Harrison, 1985) support the direct and negative impact of emotional intelligence of job stress on job commitment and job satisfaction. It is expected that job stress will cause employees to feel less committed to their organizations and be more dissatisfied with their job. That is, when employees experience job stress, their levels of job commitment and job satisfaction are likely to be low. Hence, it is hypothesized that:

H1: Job stress has a negative and direct impact on organizational commitment.

H2: Job stress has a negative and direct impact on job satisfaction.

The third hypothesis defines the relationship between occupational stress and job performance. Job stress results in employees paying less attention to work related tasks and decrease in their search for relevant information. A consequence is that less information is

available to facilitate decision making. The availability of relevant information helps decision-makers clarify the task to be performed thus decreasing role ambiguity. This information helps decision-makers in developing strategies to direct their attention and effort to enhance their job performance. Earlier studies have suggested a positive relationship between the availability and use of task-relevant information and job performance (Campbell and Gingrich, 1986; Kren, 1992; Magner, Welker and Campbell, 1996). Therefore, when employees experience job stress, they are less likely to perform well in their job because they pay less attention to their tasks and have less desire to search for task-relevant information to facilitate their decisions. It is hypothesized that:

H3: Job stress has a negative and direct impact on job performance.

The fourth hypothesis relates to the indirect relationship between job stress and job performance. As ambiguity increases, an employee feels uncertain about the possible outcomes of the job and/or how their efforts will affect the job outcomes. It results in increased role ambiguity and loss of control, which subsequently leads to decrease in effort and job performance.

As seen in earlier studies, job stress induces a sense of frustration and annoyance. Such emotional outcomes are likely to reduce job commitment and job satisfaction. Earlier studies have found a significant positive association between job satisfaction and job commitment (Pasesvark and Strasvser, 1996; Poznanski and Bline, 1997). In this research article it is proposed that highly committed employees are more likely to be more satisfied with their job than the employees who are less committed. This view is consistent with prior studies (Lachman and Aranya, 1986; Poznanski and Bline, 1997), which found job commitment was an antecedent to job satisfaction.

Many studies (Choo and Tan, 1997; Poznanski and Bline, 1997; Cliong, Eggleton and Leong, 2001) have found that job satisfaction preceded job performance. Choo and Tan (1997), for example, found that job satisfaction mediates the relationship between disagreement in budgetary performance evaluation style and job performance. Further, employees who are highly satisfied with their job perform better than those who are not satisfied with their job (Franken, 1982).

As noted above, occupation stress has a negative and direct impact on job commitment. Job commitment, on the other hand, has a positive and direct impact on job satisfaction. Job satisfaction, subsequently is expected to have a positive and direct impact on job performance. Hence, it can be said that the relationship between job stress and job performance is mediated by two variables, namely job commitment and job satisfaction. Therefore, it can be hypothesized that:

H4: Job stress has a negative and indirect impact on job performance through job commitment and job satisfaction.

Research Methodology:

Accountants working in public accounting firms were identified as an appropriate population for the present study. The data used in the present study were obtained from the employees of accounting profession firms located in Delhi-NCR. A total of 354 accountants completed the questionnaire. The participants were asked to provide information on the following variables: occupational stress, job commitment, job satisfaction and job performance. A demographic profile of our respondents is shown in table 1.

Table 1: Demographic profile of respondents

	N	
Gender		
Male	211	
Female	143	
Age		23.92 Years
Average number of years		2.43
Standard deviation		20 to 43 years
Range		
Work experience		2.2 years
Average number of years		1.33
Standard deviation		1 to 10 years
Range		
Area of specialization		
Audit	154	
Tax	80	
MAS/Consulting	27	
Insolvency	26	
Commerce	19	
Other	48	

‘Job stress’ was measured using a 14-item, 7-point Likert-type instrument developed by Savery, Soutar and Weaver (1993). An exploratory factor analysis was conducted to assess its dimensionality in the present context. Nine items loaded highly onto the first factor, which explained 45 per cent of the variance in the scale (Table 2), and these items were summed to provide an overall job stress score. The Cronbach (1951) alpha coefficient for the composite job stress scale was 0.76, which suggests the scale can be used with confidence in subsequent analysis (Nunnally, 1967).

Table 2: Factor analysis of occupational stress scale (sorted factor loadings)

S.no	Questions	Factor Loading
5	Problems associated with my job have kept me awake at night.	0.789
4	If I had a different job, my health would probably improve.	0.751
6	I often feel nervous before going to work.	0.691
1	My job tends to directly affect my health.	0.689
11	I get irritated or annoyed over the way things are going.	0.686
14	I seem to tire quickly.	0.647
7	I often 'take my job home with me' in the sense that I think about it when doing other things.	0.644
13	I wake up with stiffness or aching in my joints or muscles.	0.581
12	I would consider myself in good or excellent health.	0.551

Table 3: Factor analysis of organizational commitment scale (sorted factor loadings)

S.no	Questions	Factor Loading
2	I tell my friends that my organization is a great organization to work for.	0.819
8	For me this is the best of all possible organizations for which to work.	0.777

4	I find that my values and my organization's values are very similar.	0.766
9	My organization really inspires the very-best in me in the way of job performance. I am extremely glad that I chose my organization to work for over other organizations I was considering at the time I joined my organization.	0.765
6		0.758
7		0.756
5	I really care about the fate of my organization.	0.754
1	I am proud to tell others that I am part of my organization.	
	I am willing to put in a great deal of effort beyond that normally expected in order to help my organization be successful.	0.625
3	I would accept almost any type of job to keep working for my organization	0.457

‘Job commitment’ was measured by the 9-item version of the scale developed by Mowday, Steer and Porter (1979). A factor analysis was conducted to assess its dimensionality in the present context. As can be seen in Table 3, the nine items all loaded onto the first factor, which explained 53 per cent of the variance in the commitment data. The Cronbach alpha coefficient was 0.89, which suggested the scale was very reliable (Nunnally 1967).

‘Job satisfaction’ was measured by a single-item that asked ‘how satisfied are you with your job overall?’ Respondents indicated their level of satisfaction on a seven-point scale ranging from very dissatisfied (1) to very satisfied (7).

‘Job performance’ was also measured by a single-item scale. Respondents were asked to rate their overall job performance from unsatisfactory (1) to excellent (7) on a seven-point Likert-type scale. They were instructed to base this rating on their most recent performance review.

Results:

The descriptive statistics and Pearson correlation matrix for the constructs included in this study are shown in table 4.

Table 4: Descriptive statistics and Pearson correlation matrix

Variable	Actual (theoretical) range	Mean	SD	STRESS	ORGC OM	JOBS AT	JOBP ERF
Stress (STRESS)	1.00-7.00 (1.00-7.00)	3.51	1.45	1.00			
Organizational commitment (ORGC OM)	1.00-7.00 (1.00-7.00)	4.15	1.02	-0.24**	1.00		
Job satisfaction (JOBSAT)	1.00-7.00 (1.00-7.00)	4.51	1.35	-0.35**	0.71**	1.00	
Job performance (JOBP ERF)	1.00-7.00 (1.00-7.00)	5.32	0.86	-0.25**	0.28**	0.36**	1.00

**Significant at the 0.01 level (2-tailed) ♦Significant at the 0.05 level (2-tailed)

Figure 2: Standard path Coefficients



*Significant at $p < 0.05$; **Significant at $p < 0.01$

Table 5 shows the standardized direct impact, indirect impact and total impact for each suggested link between the various latent variables in the model. The direct impacts suggest that the direct paths included in figure 2 were significant and in the expected directions. Job stress was negatively associated with job commitment (standardized path coefficient = -0.245, $y < 0.01$), job satisfaction (standardized path coefficient = -0.189, $p < 0.05$), and job performance (standardized path coefficient = -0.140, $p < 0.05$). These results provide support for hypotheses H 1, H2 and H3.

Table 5: Standardized direct effects, indirect effects and total effects

Linkage	Direct effect	Indirect effect	Total effect
STRESS to ORGCOM	-0.245**	-	-0.245**
STRESS to JOBSAT	-0.189*	-0.163*	-0.352**
STRESS to JOBPERF	-0.140*	-0.110*	-0.250**
ORGCOM to JOBSAT	0.664**	-	0.664**
ORGCOM to JOBPERF	-	-	-
JOBSAT to JOBPERF	- 0.313**	-	- 0.313**

Test of indirect impact hypothesis

The results shown in table 5 reveal that the indirect impact of job stress on job performance through job commitment and job satisfaction was negative and statistically significant (standardized path coefficient = -0.110, $p < 0.05$). This result provides support for hypothesis H4. Path 1 reveals the indirect impact exclusively via job satisfaction, while path 2 indicates the indirect impact via job commitment and job satisfaction. Note that the zero-order correlation between job stress and job performance is statistically significant ($r = -0.25$, $p < 0.01$, see table 4). However, the direct impact relationship between job stress and job performance is also statistically significant (standardized path coefficient = -0.140, $p < 0.05$, see table 5), suggesting a partial mediation for the relationship between job stress and job performance. According to James and Brett (1984) and Baron and Kenny (1986), a partial mediation is deemed to have occurred if a significant zero-order correlation between the independent variable and the dependent variable remains significant, after controlling for the impact of the intervening variable. In contrast, a full mediation is deemed to have occurred if a significant zero-order correlation between the independent variable and dependent variable becomes insignificant after controlling for the impact of the intervening variable.

Conclusion and limitations:

The objective of this study was to examine the joint impacts of the emotional intelligence and the cognitive role of job stress on employees of public accounting firms job-related attitudes (job commitment and job satisfaction) and job performance. The results obtained contribute to the accounting literature in the following ways. First, the results indicate that job stress results in two outcomes; namely an emotional intelligence and a cognitive role impact. It was found that the emotional intelligence to job stress has a direct impact on subordinates' job commitment and job satisfaction (see hypotheses H1 and H2). When employees experience the negative emotional intelligence of job stress, their levels of job commitment and job satisfaction are more likely to be low.

Second, the results indicated that the cognitive role of job stress had a direct impact on employees of public accounting firms job performance. This suggests that when employees experience the cognitive role of job stress, they are less likely to perform well in their job as they pay less attention to tasks and have less desire to search for relevant information to facilitate their decisions.

Third, the results indicate that the emotional intelligence and the cognitive role of job stress were responsible for the indirect impact on employees of public accounting firms job performance through their job-related attitudes, such as job commitment and job satisfaction. This suggests that people who have low levels of job commitment and people who are dissatisfied with their job are less likely to perform well in their job.

The present study should help management to better understand the dysfunctional impacts of job stress on employees of public accounting firms levels of job satisfaction, job commitment, and job performance. The introduction of preventive stress management, which focuses on reducing negative emotional intelligence and cognitive role of occupation stress among public accountants, may mitigate the negative impacts of occupational stress. However, several limitations need to be noted. First, the sample included only relatively junior-level public accountants. Thus, the results may not be generalizable to more senior members of the accounting profession and other professions (such as nurses, doctors and teachers). Further studies that include more senior staff members and various professions such as nurses, doctors and teachers would be worthwhile. Second, the use of self-reported productivity measures is more likely to be tolerant and less prone to error variability (Prien and Liske, 1962; Thornton, 1968). Performance evaluation based on the most recent research methods (eg, longitudinal field studies, management evaluation) to explore the theoretical relationships proposed in this study. Third, this study did not consider other potential predictors of job stress, such as role uncertainty, role conflict, and worker personality traits.

References:

- Angle, H.L. and J.L. Perry. 1981. An empirical assessment of job commitment and organizational impactiveness. *Administrative Science Quarterly* 21: 1—14.
- Bamber, E.M. and J.H. Bylinski 1988. The impacts of the planning memorandum, time pressure and employee auditor characteristics on audit managers' review judgments. *Contemporary Accounting Research* 4: 127—43.
- Baron, R.M. and D.A. Kenny. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical consideration. *Journal of Personality and Social Psychology* 52(2): 1173—82.
- Beehr, T. 1985. Organizational stress and employee impactiveness. In *Human stress and cognitive in organisations*, eds T. Beehr and R. Bhagat. New York: John Wiley and Sons.

- Beehr, T. and R. Bhagat. 1985. Introduction to human stress and cognition in organizations. In *Human stress and cognitive in organisations*, eds T. Beehr and R. Bhagat. New York: John Wiley and Sons.
- Bentler, P.M. 1995. EQS Structural Equation program Manual. Encino, CA: Multivariate Software, Inc.
- Bentler, P.M. and D.G. Bonnet. 1980. Significance tests and goodness-of-fit in the analysis of covariance structure. *Psychological Bulletin* 88: 588—600.
- Blau, G.J. 1987. Using a person-environment fit model to predict job involvement and job commitment. *Journal of Vocational Behaviour* 30: 240—57.
- Bollen, K. and I.S. Long. 1992. Tests for structural equation models. *Sociological Methods and Research*: 123—31.
- Brown, S.P. and R.A. Peterson. 1994. The impact of effort on sales performance and job satisfaction. *Journal of Marketing* 70 (April): 74—80.
- Campbell, D.J. and K.F. Gingrich. 1986. The interactive impacts of task complexity and participation on task performance: A field experiment. *Organisational Behaviour and Human Decision Processes* 38(2): 162—80.
- Chong, V.K., I.R.C. Eggleton and M. Leong. 2001. Testing the performance impact of the cognitive and value attainment roles of budget participation using a structural equation modelling technique. *Proceedings of the 13th Asian-Pacific Conference on International Accounting Issues (Rio De Janeiro, Brazil, 28—31 October 2001)*, 24—7.
- Choo, F. 1986. Job stress, job performance, and auditor personality characteristics. *Auditing: A Journal of Practice and theory* 2: 17—34.
- Choo, F. 1987. Auditors' personality typology and perceptions of stress. *Accounting and Finance*: 13—23.
- Choo, F. 1992. The interactive impact of humor and type A behaviour: Accounting perspective and behavior. *Advances in Accounting* 10: 197-217.
- Choo, F. 1995. Auditors' judgment performance under stress: A test of the predicted relationship by three theoretical models. *Journal of Accounting, Auditing, and Finance* 10: 611—41.
- Choo, F., and K.B. Tan. 1997. A study of the relations among disagreement in budgetary performance evaluation style, job-related tension, job satisfaction and performance. *Behavioural Research In Accounting* 9: 199—218.
- Collins, K.M. 1993. Stress and departures from the public accounting profession: A study of gender differences. *Accounting Horizons* 7: 29—38.
- Collins, K.M. and L.N. Killough. 1992. An empirical examination of stress in public accounting. *Accounting, Organisations and Society* 1. 7: 535—47.
- Combs, A.V. and C. Taylor. 1952. The impact of the perception of mild degrees of threat on performance. *Journal of Abnormal and Social Psychology* 47: 420—4.
- Cronbach, L.J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* 16: 297—334.
- DeZoort, F.T. and A.T. Lord. 1994. An investigation of obedience pressure impacts on auditors' judgments. *Behavioral Research in Accounting* 6 (Supplement): 1-30.
- DeZoort, F.T. and A.T. Lord. 1997. A review and synthesis of pressure impacts research in accounting. *Journal of Accounting Literature* 16: 28—85.
- Driskell, J.E. and E. Salas. 1991. Group decision making under stress. *Journal of Applied Psychology* 76: 473-78.
- Duncan, O.D. 1975. *Introduction to Structural equation models*. New York: Academic Press.
- Easterbrook, J.A. 1959. The impact of emotion on cue utilization and the organization of behavior. *Psychological Review* 66: 183—201.

- Eden, D. 1982. Critical job events, acute stress, and strain: A multiple interrupted time series. *Organisational Behaviour and Human Performance* 30: 312—29.
- Edwards, J. 1986. An examination of competing versions of the person- environment fit approaches to stress. *Academy of Management Journal* 39: 292—339.
- Franken, R.E. 1982. *Human Motivation*. Monterey, CA: Brooke/Cole Publishing Company.
- Haskins, M.E., A.J. Baglioni Jr and C.L. Cooper. 1990. An investigation of the sources, moderators, and psychological symptoms of stress among auditor seniors. *Contemporary Accounting Research* 6: 361—85.
- James, L.R. and J.M. Brett. 1984. Mediator, moderator, and tests for mediation. *Journal of Applied Psychology* 69: 307—21.
- Katzell, R.A., D.E. Thompson, and R.A. Guzzo. 1992. How job satisfaction and job performance are and are not linked. In *Job satisfaction: How people feel about their jobs and how it impacts their performance*, eds C.J. Cranny, P.C. Smith and E.F. Stone, chapter 8. New York: Lexington Books.
- Kieinan, G. 1987. Decision making under stress: Scanning of alternatives under controllable and uncontrollable threats. *Journal of Personality and Social Psychology* 52: 639-61.
- Krcn, L. 1992. Budgetary participation and managerial performance: The impact of information and environmental volatility. *Accounting Review* 67(3): 511—26.
- Lachman, R. and N. Aranya. 1986. Job attitudes and turnover intentions among professionals in different working settings. *Organisational Studies* 7(3): 279—93.
- Locke, E.A. 1986. Job attitudes in historical perspective. In *Papers dedicated to the development of modern management*, ed. D. Wren. New York: Academy of Management.
- Magner, N., R.B. Welker, and T.L. Campbell. 1996. Testing a model of cognitive budgetary participation processes in a latent variable structural equations framework. *Accounting and Business Research* 27: 41—50.
- Mowday, R., R. Steer and L. Porter. 1979. The measurement of job commitment. *Journal of Vocational Behavior* 14: 224-247.
- Nunnally, J.C. 1967. *Psychometric theory*. New York: McGraw-Hill
- Parasuraman, S. and J.A. Alutto. 1981. An examination of the organizational antecedents of stressor at work. *Academy of Management Journal*, 24: 48—67.
- Parker, D.F. and T.A. DeColis. 1983. Organizational determinants of job stress. *Organisational Behaviour and Human Performance* 32: 160—77.
- Pasewark, W.R. and J.R. Strawser. 1996. The determinants and outcomes associated with job insecurity in a professional accounting environment. *Behavioral Research in Accounting* 8: 91—113.
- Poznanski, P.J. and D.M. Bline. 1997. Using structural equation modeling to investigate the causal ordering of job satisfaction and job commitment among staff accountants. *Behavioral Research in Accounting* 9: 154—71.
- Pratt, L. and J. Barling. 1988. Differentiating between daily events, acute and chronic stressors: a framework and its implication. In *Job stress: Issues and developments in research*, eds J Hurrell Jr, L. Murphy, S. Sauter and C. Cooper, 41—53. New York: Taylor and Francis.
- Prien, E.P. and R.E. Liske. 1962. Assessment of higher-level personnel: III. Rating criteria: A comparative analysis of supervision ratings and incumbent self-rating of job performance. *Personnel Psychology* 32: 187-94.
- Quick, J.C. and J.D. Quick. 1994. *Organisational stress and preventive stress management*. New York: McGraw-Hill.
- Quick, J.D., D. L. Nelson, A.C. Matuszek, J.L. Whittington and J.C. Quick. 1996. Social support, secure attachments, and health. In *Handbook of stress, medicine, and Health*, ed. C. Cooper, 269—87. Boca Raton, FL: CRC Press.

- Savery, L.K., G.N. Soutar and J. Weaver. 1993. Stress and the police officer: Some West Australian evidence. *Police Journal* 66(3): 277—90.
- Smith, K.J. and G.S. Everly. 1990. An intra- and inter-occupational analysis of stress among accounting academicians. *Behaviour al Research in Accounting* 2: 154—73.
- Spector, P.E. 1998. A control theory of the job stress process. In *Theories of organisational stress*, ed. C.L. Cooper, 153—69. Oxford: Oxford University Press.
- Streufert, S. and S.C. Streufert. 1981. Stress and information search in complex decision making: impacts of load and time urgency. Technical Report no. 4. Arlington, VA: Office of Naval Research.
- Thornton, G.C. 1968. The relationship between supervisory and self-appraisals of executive performance. *Personnel Psychology* 21: 441—56.
- Van Harrison, R. 1985. The person-environment fit model and the study of job stress. In *Human stress and cognitions in organisations: An integrated perspective*, eds T.A. Beehr and R.S. Bhagat, 23—56. New York: John Wiley and Sons.
- Wolfgang, A.P. 1995. Job stress, coping and dissatisfaction in the health professions: A comparison of nurses and pharmacists. In *Job stress: A handbook*, eds R. Crandall and P.L. Perrewe, 193—206. Washington, DC: Taylor and Francis.
- Wright, P. 1974. The harassed decision-maker: Time pressure, distractions, and the use of evidence. *Journal of Marketing Research* 44: 429—43.