

Challenge and hindrance stressors in New Zealand: exploring social exchange theory outcomes

Jarrod M. Haar

Abstract Recent developments to the stressors literature have suggested that stressors can have both negative and positive influences. This study of 203 New Zealand government workers tested challenge (positive) and hindrance (negative) stressors as predictors of job outcomes focusing upon social exchange theory. The results found challenge stressors held positive relationships with supervisor support, perceived organizational support and employee loyalty; while, conversely, hindrance stressors were negatively related to these outcomes. Employer implications are that jobs structured to allow greater amounts of responsibility, with greater scope, are more likely to lead to positive job outcomes relating to feelings of reciprocity. Organizations that can better manage and control hindrance stressors while promoting challenge stressors will likely enjoy more loyal employees, with greater support perceptions, which might alleviate some of the tension of working into today's turbulent environments.

Introduction

It is important to recognize that minimizing work-related stressors and promoting good mental health through workplace policies can help prevent mental health problems from developing. (International Labour Organization, 2000: 3)

Work-related stress is a global phenomenon and one which is gathering increased attention internationally. This change has had legislative effects in New Zealand, where major changes in 2003 to the Health and Safety in Employment Act explicitly stated that stress and fatigue were workplace hazards in the New Zealand workplace. This was in response to New Zealand employees having sued employers for not responding to stress, as mental trauma through work was not covered under New Zealand Accident Compensation legislation (*Sunday Star Times*, 2001). Importantly, these cases have been highly publicized due to the size of payments, with the largest around \$750,000 (*Sunday Star Times*, 2001). Typically, employers failed to respond to repeated appeals and complaints from their employees. However, as noted by the International Labour Organization, New Zealand is not alone in its attention to stress.

In Britain, where employment legislation is similar to New Zealand, employers paid out NZ\$1.09 billion to employees suffering from stress (*Evening Post*, 2001). Consequently, the economic impact of stress should be an important aspect for

Jarrod M. Haar, Department of Strategy and Human Resource Management, University of Waikato, Private Bag 3105, Hamilton, New Zealand (tel: +64 7 838 4587; fax: +64 7 838 4356; e-mail: haar@waikato.ac.nz).

employers and researchers to explore. Further, the International Labour Organization (2000: 5) reported that stress is a major concern internationally, estimating that '3–4% of GNP is spent on mental health problems in the European Union', while in the United States 'the national spending associated with treatment of depression ranges between US\$30 to US\$44 billion'. This reiterates the importance of exploring stressors of a positive nature, and there are currently few empirical studies exploring the positive influences of stress.

Bliese and Britt (2001) maintained that employees exposed to stressors also experience high levels of strain, for example poor health and psychological well-being (e.g. Jex, 1998). However, recent advances have shown that stressors may have both positive and negative outcomes, and it is the purpose of this paper to explore both these stressor aspects towards a number of work attitudes. This is important because if stressors can have positive as well as negative influences on attitudes, then determining how to create more positive job conditions might indicate to employers how to reduce work-related problems for their employees, and possibly gain some control over the legislative environment facing employers internationally.

Work stressors

Beehr *et al.* (2000: 391) defined work stressors as 'environmental factors at work'. Stressors have also been defined as 'stressful job conditions' (Jex *et al.*, 2001: 401). Beehr (1995) noted that stressors can lead to harmful individual reactions, and Beehr *et al.* (2000: 392) stated that work stressors have the largest impact on individual strains and performance 'because they are most salient to employees in a particular job'. Consequently, exploring work stressors is pertinent because they have the strongest effects on work attitudes. A recent approach in the stress literature has been exploring stressors with both positive and negative dimensions. Cavanaugh *et al.* (2000) found stressors could have both positive and negative aspects, termed challenge stressors and hindrance stressors respectively. Challenge stressors relate to feelings of achievement and fulfilment and positive work outcomes, while hindrance stressors relate to distress and negative work outcomes. Their study was in response to critics who argued that not all stress is bad, and that some stress may have positive influences (Merelman, 1997).

Cavanaugh *et al.* (2000: 66) suggested that self-reported work stressors will be 'differentially related (positively and negatively) to attitudinal and behavioural work outcomes depending on the stressors that are evaluated'. Jex *et al.* (2001) noted that the stress literature has clearly shown that stressors are reliably associated with adverse employee reactions. Dunseath *et al.* (1995) noted there are many potential negative outcomes including physiological, psychological and behavioural disorders. Dunseath *et al.* (1995) noted that the adverse outcomes of stressors are generally thought to occur specifically because of the stressor, or the stressor makes the outcome more severe if caused by another agent. Given that there is limited knowledge of the effects of positive stressors on outcomes, the present study proceeds to hypothesize positive and negative work attitudes from challenge and hindrance stressors in a New Zealand setting to aid our international understanding of stressors.

Social exchange theory and hypotheses

Social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) have for a long time 'been used by organizational researchers to describe the motivational basis behind employee behaviours and the formation of positive employee attitudes'

(Settoon *et al.*, 1996: 219). Social exchange theory suggests that employees who value benefits received from their organization, such as pay, fringe benefits or working conditions, will reciprocate with more positive work attitudes. Blau's (1964) social exchange theory argues that employees will trade their efforts for the promise of rewards in the future. Therefore, employees perceiving negative and distressing workplace conditions should reciprocate with negative work attitudes, while those perceiving the workplace conditions as positive and challenging should reciprocate with positive work attitudes. This theoretically aligns itself with the challenge and hindrance stressors findings.

In their study of challenge and hindrance stressors, Cavanaugh *et al.* (2000) found hindrance stressors were significantly and negatively related to job satisfaction and significantly and positively related to job search. Challenge stressors were also significantly related to these outcomes but in the opposite directions. The present study seeks to extend the types of attitudes explored by challenge and hindrance stressors by examining attitudes linked with social exchange theory.

A range of attitudes was chosen that fit with social exchange theory. These are supervisor support, perceived organizational support and employee loyalty. Supervisor support relates to employee perceptions of how supportive their supervisors are (Lambert, 2000), while perceived organizational support is about employee beliefs of how much the organization values them and cares about their well-being (Eisenberger *et al.*, 1986). Thus, an employee might register his/her contentment (or lack thereof) with their supervisor and organization by having high (or low) supervisor and organizational support perceptions. Similarly, employees might also register their contentment by exhibiting higher loyalty, and employee loyalty is defined as giving public and private support for the organization and practising good citizenship (Rusbult *et al.*, 1988).

Attitudes linked to social exchange theory are appropriate because they relate to workplace perceptions, which is appropriate given the nature of workplace stressors and their significant impact on work attitudes. Stamper and Johlke (2003: 572) argued the links between perceived organizational support and stressors are well founded, stating organizations that care about employees would be 'more likely to reduce unnecessary work complications and distractions', and a negative relationship between stress and perceived organizational support has been found (Jones *et al.*, 1995). Similarly, a supportive supervisor might be expected to be the key management person to reduce these distractions. Thus, an organization that creates hindrance stressors, for example through a lack of performance guidance for an employee, or adverse internal politics, might lead the employee to feel less support from their immediate supervisors and from the organization as a whole. Conversely, positive challenges in the workplace, such as high levels of responsibility, may hold positive influences on these attitudes. This leads to the first set of hypotheses.

Hypothesis 1a: Hindrance stressors will be negatively related to supervisor support.

Hypothesis 1b: Challenge stressors will be positively related to supervisor support.

Hypothesis 2a: Hindrance stressors will be negatively related to perceived organizational support.

Hypothesis 2b: Challenge stressors will be positively related to perceived organizational support.

It is also expected that employees will respond to hindrance stressors by registering lower levels of employee loyalty. In effect, through negative work conditions, employees perceive the organization as showing low regard for them by producing negative

stressors, for example by creating too much red tape. Alternatively, a workplace that offers challenging workplace aspects should produce feelings of reciprocity that lead to greater levels of loyalty. This leads to the last set of hypotheses.

Hypothesis 3a: Hindrance stressors will be negatively related to employee loyalty.

Hypothesis 3b: Challenge stressors will be positively related to employee loyalty.

Method

Sample and procedures

Data were collected from a New Zealand government department with 622 employees, in the financial services sector. Two surveys were e-mailed through the department's intranet, with access available to all employees. The surveys were administered with a four-week time lag, to reduce the possibility of common method variance. Thus, predictor variables and control variables were collected in the first survey, while criterion variables were collected in survey two. In essence, the ability of criterion variables to be influenced by answers to predictor variables is nullified by the four-week time gap. In total, there were 203 matched surveys (one and two) returned, for a 32.6 per cent response rate. On average, participants were 40.5 years old, white (88 per cent), married (81 per cent), female (75 per cent), parents (74 per cent) and union members (67 per cent). The average tenure was 12.6 years, and, by job type, the composition was 27 per cent white-collar and 73 per cent blue-collar workers. On average, respondents earned between \$30,000 and \$40,000 and 40 per cent held some tertiary/university qualification.

Measures

Challenge stressors and hindrance stressors were measured using an 11-item scale developed by Cavanaugh *et al.* (2000). Questions followed the stem, 'Things that cause you stress ...' and were coded 1 = no stress, 5 = great deal of stress. Sample questions are 'the number of projects and/or assignments I have' (challenge stressor), and 'the amount of red tape I need to go through to get my job done' (hindrance stressor). Cavanaugh *et al.* (2000) found that stressors can be divided between challenge and hindrance dimensions. To confirm this, the measure was tested by factor analysis (principal components, varimax rotation), which resulted in two components. The first factor matched the six-item challenge stressors (eigenvalues = 3.62, 32.9 per cent of the variance, and a Cronbach's alpha of 0.86). The second factor matched the five-item hindrance stressors (eigenvalues = 2.51, 22.8 per cent of the variance, and a Cronbach's alpha of 0.73).

Supervisor support was measured using an eight-item measure by Lambert (2000), which extended the Michigan Assessment of Organizations Questionnaire (Cammann *et al.*, 1983). Questions followed the stem 'My supervisor' and included 'is concerned about me as a person' and 'is helpful to me when I have a routine family or personal matter to attend to'. Items were coded 1 = strongly disagree, 5 = strongly agree, and the measure had a Cronbach's alpha of 0.93.

Perceived organizational support was measured using a ten-item scale of Eisenberger *et al.* (1986), coded 1 = strongly disagree, 5 = strongly agree. Questions included 'The organization really cares about me' and 'The organization strongly considers my goals and values'. This scale had a Cronbach's alpha of 0.89.

Employee loyalty was measured using the ten-item measure by Rusbult *et al.* (1988), coded 1 = strongly disagree, 7 = strongly agree. Sample questions include 'I will say good things about this organization even when other people criticize it', and 'I sometimes wear clothing (tie, pin, jacket, etc.) that bears the organization's symbol or insignia (or I would do so if my organization had such clothing)'. This scale had a Cronbach's alpha of 0.76.

A number of demographic variables were controlled for that might influence employees' stressors, which are typical in the stress and conflict literature (Anderson *et al.*, 2002; Frone, 2000; Fu and Shaffer, 2000; Major *et al.*, 2002). These were gender (female = 1, male = 0), marital status (1 = married/de facto, 0 = single), number of children, and salary (1 = <\$20,000, 2 = \$20,001–\$30,000, 3 = \$30,001–\$40,000, 4 = \$40,001–\$50,000, 5 = \$50,001–\$60,000, 6 = >\$60,000).

Analysis

To examine social exchange-related outcomes of challenge and hindrance stressors (Hypotheses 1 to 3), separate hierarchical regressions were conducted. Step 1 contained the control variables (gender, marital status, number of children and total hours worked). The predictor variables (challenge stressors and hindrance stressors) were entered in Step 2. In all, three regression models resulted, one for each criterion variable (supervisor support, perceived organizational support and employee loyalty).

Results

Descriptive statistics for all the study variables are shown in Table 1.

Table 1 shows challenge stressors are significantly correlated with hindrance stressors only ($r = 0.48$, $p < 0.01$). Hindrance stressors are significantly correlated with all the criterion variables: supervisor support ($r = -0.29$, $p < 0.01$), perceived organizational support ($r = -0.50$, $p < 0.01$), and employee loyalty ($r = -0.29$, $p < 0.01$). All three criterion variables are significantly correlated with each other at the $p < 0.01$ level.

Results of the hierarchical regressions for Hypotheses 1 to 3 are shown in Table 2.

Table 2 shows that challenge and hindrance stressors were both significantly related in the hypothesized directions towards all criterion variables, supporting Hypotheses 1 to 3. Challenge stressors were significantly and positively related to supervisor support ($\beta = 0.20$, $p < 0.05$), perceived organizational support ($\beta = 0.26$, $p < 0.001$), and employee loyalty ($\beta = 0.15$, $p < 0.05$). Likewise, hindrance stressors was significantly

Table 1 Correlations and descriptive statistics of the study variables

Variables	M	SD	1	2	3	4	5	6
1. Salary	3.0	0.96	—					
2. Challenge stressors	2.6	0.77	0.22*	—				
3. Hindrance stressors	2.5	0.74	0.11	0.48**	—			
4. Supervisor support	3.9	0.76	-0.23**	-0.10	-0.29**	—		
5. Perceived organizational support	3.2	0.68	-0.13	-0.08	-0.50**	0.32**	—	
6. Employee loyalty	4.4	0.83	-0.13	-0.05	-0.29**	0.24**	0.48**	—

Notes: $n = 203$; * $p < 0.05$; ** $p < 0.01$.

Table 2 Job-related outcomes for challenge and hindrance stressors

Predictors	Criterion variables		
	Supervisor support	Perceived organizational support	Employee loyalty
<i>Step 1: Controls</i>			
Gender	−0.14	0.11	0.18*
Marital status	0.02	−0.01	−0.06
Family size	−0.16*	−0.01	0.25**
Salary	−0.28**	0.01	−0.11
R ² change	0.10**	0.03	0.11**
F change	3.73**	1.04	4.29**
<i>Step 2: Predictors</i>			
Challenge stressors	0.20*	0.26**	0.15*
Hindrance stressors	−0.44***	−0.64***	−0.32***
R ² change	0.15***	0.31***	0.08**
F change	13.09***	32.40***	6.75**
Total R ²	0.24	0.34	0.20
Total adjusted R ²	0.21	0.31	0.16
Total F statistic	7.29***	11.80***	5.63***

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Standardized regression coefficients, all significance tests were single-tailed.

and negatively related to supervisor support ($\beta = -0.44$, $p < 0.001$) perceived organizational support ($\beta = -0.64$, $p < .001$) and employee loyalty ($\beta = -0.32$, $p < 0.05$).

Overall, the three regression models were significant: supervisor support, perceived organizational support and employee loyalty (all $p < 0.001$). This indicates that hindrance and challenge stressors are good predictors of the work attitudes explored in the present study. The R² change figures in Step 2 shows that challenge and hindrance stressors account for 15 per cent of the total variance for supervisor support ($p < 0.001$), 31 per cent for perceived organizational support ($p < 0.001$) and 8 per cent for employee loyalty ($p < 0.01$).

Discussion

The purpose of this study was to explore work attitude outcomes from hindrance and challenge stressors. As expected, challenge stressors were positively related to attitudes associated with social exchange theory, while hindrance stressors were negatively related. Thus, employees experiencing feelings of accomplishment through workload and time pressures perceive greater support from their supervisors and organization, and were more likely to reciprocate through feelings of loyalty. Conversely, frustration at organizational red tape and a lack of clear performance expectations leave employees perceiving less support and limited feelings of loyalty.

It is worth noting that while the R² change in Step 2 were significant for all three models, the amount of variance accounted for by hindrance and challenge stressors for perceived organizational support was much larger than for the other outcomes at 31 per cent ($p < 0.001$), approximately twice the size of the supervisor support and three times that for employee loyalty. Consequently, employee perceptions of how much the

organization values and cares for them are highly influenced by working stressors. This is important as a recent meta-analysis on perceived organizational support found perceived organizational support to be a major predictor of job-related outcomes, including organizational commitment, job satisfaction, turnover intention and performance (Rhoades and Eisenberger, 2002). Implications are that working conditions can heavily influence perceived organizational support, which in turn predicts a host of important work attitudes. Therefore, organizations wishing to target workplace aspects that may influence a host of work attitudes should recognize that working conditions may play a pivotal role in influencing work attitudes through workplace stressors.

The findings in the present study are also important because work attitudes being influenced by hindrance and challenge has not been explored outside the United States, and suggests these effects might be applicable within other Westernized workplaces. The findings indicate that while hindrance stressors hold consistently negative links with work outcomes, stressors that are perceived as being positive and challenging can have positive effects on these outcomes too. Consequently, stress should not be considered as being solely negative and bad. The implication for employers who are worried about the impact stress has on organizations, is that by focusing on job aspects that are positive and challenging they may actually enhance positive outcomes. For example, providing jobs that are structured to allow greater amounts of responsibility, with greater scope and autonomy, may encourage positive outcomes. Further studies supporting the positive influence of challenge stressors on work attitudes in New Zealand may alleviate New Zealand employer concerns regarding stress, and indicate to employers some mechanisms for creating better working conditions for employees. However, given the massive amount of data explaining the negative stressors impact on outcomes, there is further scope for development before employers can suggest their workplace stress issues are resolved.

Despite these positive findings, a note of caution is worthwhile. Cavanaugh *et al.* (2000) highlighted that while challenge stressors held positive outcomes, the effects of positive stressors on physical outcomes were unknown. Hence, it might be that while challenge stressors have a positive influence on job outcomes, they may still be detrimental to an employee's health. Hence, employers should not assume challenge stressors mean reduced health effects, for example, lower employee burnout, and lower blood pressure, etc. As the physical aspects of health were also not explored in the present study, there is a need to caution employers about seeing challenge stressors as the 'panacea' to stress concerns. For example, an employer might load employees with more job roles, responsibilities and autonomy, and while they perform these well and enjoy more positive work attitudes, they still might suffer debilitating personal health. Hence, the physical and mental effects of stress should be a dual focus of an organization's human resource department in dealing with stress worries. This encourages future hindrance and challenge stressors studies to explore health-related outcomes.

Limitations

There are some limitations that mean these results should be interpreted with some caution. As the study is based upon a single New Zealand government department, this does limit the generalizability. Further replication in private sector organizations, in different organizational settings, will undoubtedly improve the confidence researchers, and thus employers, regarding the outcomes from hindrance and challenge stressors. However, the country setting of New Zealand, the public sector organization, and

a random sample of employees from all organizational levels, does indicate the challenge and hindrance stressors measure is transferable, and theoretically and statistically solid. The factor analysis separated as expected, and the hypotheses were all supported, in opposing directions as expected. Consequently, the present study provides solid support for the Cavanaugh *et al.* (2000) model.

A further strength of this study was that while self-reported data are typical in stress research, data were collected in two time periods with a sizable gap between surveys (four weeks). Consequently, the relationships found between predictor and criterion variables were not likely to be found because answers from one set of questions (e.g. stressors) encouraged answers to the other sets of questions (work attitudes). This strengthens the findings of the present study.

Finally, the correlation between challenge and hindrance stressors ($r = 0.48$, $p < 0.01$) is higher than Cavanaugh *et al.*'s (2000) study ($r = 0.28$, $p < 0.01$). However, the measures did separate as expected by factor analysis, and did operate in opposite directions for challenge and hindrance stressors. Cavanaugh *et al.*'s (2000) sample of only managers might also account for a weaker correlation between challenge and hindrance stressors than found here. It might also be a cultural anomaly inherent in New Zealand. Again, further replication will improve our understanding of how these stressors operate.

Conclusions

Overall, the present study finds strong support for the theoretical separation of stressors into challenge and hindrance dimensions. The findings indicate that stressors can have both negative and positive influences on work attitudes, and this was previously unknown empirically in New Zealand. While challenge stressors were found to associate positively with all work attitudes, caution is urged regarding the physical or psychological effects such stressors might have on employees. These findings offer some encouragement for New Zealand employers hoping to balance the needs of business with attention to recent stress legislation. It may also provide international employers with some avenues for improving job conditions to the advantage of their employees. Thus, providing jobs that encourage positive, challenging aspects is more likely to influence positive work outcomes. However, whether challenge stressors also have the potential to harm employees physically is currently unknown, and must remain a focus if employers seek to enhance challenge stressors in their workforce.

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