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The job strain model is enough for managers

No augmentation needed

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Abstract

This paper reports on the results of a study aimed at identifying the relative influence of generic and job-specific stressors experienced by a cohort of Australian managers. The results of a regression analysis revealed that both the generic components of the job strain model (JSM) and job-specific stressors were predictive of the strain experienced by participants. However, when looking at the total amount of variance that is explained by the predictor variables, the combined influence of job demand, job control and social support contributed 98 per cent of the explained variance in job satisfaction and 90 per cent of the variance in psychological health. The large amount of variance explained by the JSM suggests that this model provides an accurate account of the work characteristics that contribute to the strain experienced by managers and no augmentation is needed.

Introduction

Studies indicate that work-related strain among managers is reaching epidemic proportions. In a recent survey of managerial personnel, most respondents reported feeling more pressure than they could ever remember (Cohen, 1997). In another study, managers and supervisors were rated high on a list of the most stressed members of the workforce, close behind health professionals and sales executives (Williamson and Vine, 1998). The high rate of stress among managers is a serious concern, particularly in light of the important roles that a manager is typically responsible for. The role of a manager in planning, organising, controlling and leading indicates that managers are a critical human resource for any organisation (Menon and Akhilesh, 1994). Moreover, the central role that managers play in the performance of an organisation suggests job strain is not just a major threat to the health of managers, but is also a serious threat to organisational success (Albrecht, 1979).

One of the first steps to addressing any workplace health issue is to identify and measure the sources (Cox and Cox, 1993; Quinlan and Bohle, 1991). In the case of occupational stress there are numerous models that can be used to identify the situations and conditions that give rise to job strain. Generic models of job stress, such as the job strain model (JSM) and the full mediation generic model, have frequently been used to investigate the work characteristics that contribute to occupational stress (Bacharach and Bamberger, 1992; Beehr et al., 2000; Fox et al., 1993; Karasek, 1979). These generic models have been shown to be significant predictors of a range of health and productivity outcomes, including psychological health, job satisfaction, organisational commitment and absenteeism. However, when using a generic model of job strain there is a risk that researchers focus
solely on the generalised work characteristics described in the model (Sparks and Cooper, 1999).

Several studies have recently examined the relative influence of generic and job-specific stressors (Beehr et al., 2000; Narayanan et al., 1999; Sparks and Cooper, 1999). Where the predictive capacity of generic role stressors and job-specific stressors have been compared, the results revealed that both groups of stressors were significant predictors of psychological strain (Beehr et al., 2000). At the same time, other researchers have found that the generic stressor, job control, and several sources of work pressure were correlated with health outcomes across multiple occupations (Sparks and Cooper, 1999). This and other research (Narayanan et al., 1999) also found that some sources of work stress were significantly associated with strain in one occupation but not in another. The predictive capacity of generic and job-specific stressors, combined with the inter-occupational variation in the importance of job stressors, supports the view that more situation-specific models should guide occupational stress investigations (Beehr et al., 2000; Narayanan et al., 1999; Sparks and Cooper, 1999).

Although there is increasing support for the use of more job-specific models, the influence of the JSM and job-specific work characteristics needs to be compared. The JSM is one of the most widely used theoretical models underpinning recent large-scale occupational stress research (Fox et al., 1993). A key strength of the JSM is that it has been tested on an array of occupational groups (e.g. machine operators, carpenters, nurses, bank officers and managers) and has been shown to have predictive value (Karasek and Theorell, 1990). Developed by Karasek (1979), the JSM uses a two-dimensional design involving job demands and job control to predict stress-related illness (referred to as strain). The original JSM has been expanded to include social support following studies demonstrating the moderating effects of social support on job strain (Karasek and Theorell, 1990; Landsbergis et al., 1992). The present study will extend the research looking at the relative influence of generic and job-specific models of occupational stress by testing the capacity of the expanded JSM and occupation-specific stressors to predict the strain experienced by a cohort of managers.

The work characteristics described in the JSM appear to play an influential role in the stress experienced by managers. In the case of job control and job demand, studies examining the sources of managerial strain have identified a strong link between these variables and well-being (Bogg and Cooper, 1995; Cooper and Hensman, 1985; Leong et al., 1996; Worrall and Cooper, 1995). While high job demands have always been regarded as a key source of strain for managers, it appears that a lack of control has become a particularly prevalent stressor over the past two decades. For example, the results of eight European surveys during the period 1977 to 1996 indicate that there has been a gradual increase in time pressures experienced by managers that have not been matched by a corresponding increase in job autonomy (European Foundation for the Improvement of Living and Working Conditions, 1999). This finding is consistent with the results of other survey data indicating that middle and junior managers reported notable reductions in job autonomy in recent years (Worrall and Cooper, 1999). While chairmen and CEOs remained satisfied with the level of autonomy they have, the vast majority of middle and lower-level managers were not satisfied with their level of decision-making freedom.
The third component of the JSM, social support, has also been found to strongly influence the strain experienced by managers. Both work (Leong et al., 1996) and non-work (Quick et al., 1990) sources of support are reported to be important resources for helping managers to cope with and address stressful situations.

Despite the strong support for the JSM, the strain experienced by managers can also be attributed to job-specific stressors. Furthermore, these factors would not be adequately explained by the work characteristics described in the JSM. For example, career development stressors such as a lack of job security (Cavanaugh et al., 2000) and career blockages (Bogg and Cooper, 1995; Cavanaugh et al., 2000) have been identified in studies involving managerial personnel and are conceptually distinct from job demand, job control and social support. Other stressors that have been identified, but would not be adequately explained by the JSM include: interpersonal conflict (McCormick and Cooper, 1988; Leong et al., 1996; Bogg and Cooper, 1995; Rout, 1999); long working hours (Cooper and Marshall, 1978); poor communication (Rout, 1999); responsibility for people (Menon and Akhilesh, 1994; Broadbridge, 1999); work-family conflict (Broadbridge, 1999; Bogg and Cooper, 1995) and role ambiguity (Menon and Akhilesh, 1994; Cavanaugh et al., 2000).

The relevance of a number of the above stressors is heightened when considered in conjunction with the social, organisational and economic changes that have occurred in recent years. The lack of job security, for example, has become a particularly prevalent source of stress over the past decade when managers have been the targets of downsizing and delayering (Littler et al., 1997). Similarly, the stressors, longer working hours and work-family conflict, reflect the organisational and social context that many managers now work in. The dramatic rise in the complexity in managerial positions, without corresponding increases in resources, has resulted in many managers spending more and more time at work (Cartwright and Boyes, 2000; Worrall and Cooper, 1999). The ever-increasing working week can have significant implications for the health of managers (Sparks and Cooper, 1997), while also undermining their relationships with partners and children (Worrall and Cooper, 1999).

Together, the results of studies examining managerial strain indicate that the more situation-specific stressors would also be predictive of the strain experienced by managers. However, a job-specific stressor can be found to be predictive of job strain and yet the job-specific model overall can still fail to explain a significant portion of the variance in strain outcomes. A more telling result would therefore be the amount of explained variance that is attributed to the generic and job-specific models. Based on the number of stressors that cannot be explained by the JSM it is expected that an augmented model of job strain (i.e. generic model augmented by job-specific stressors) would explain significantly more of the variance in job strain than if the generic model was used alone. On the basis of these expectations, the two hypotheses to be investigated in the present study are as follows:

**H1.** Both the generic dimensions of the JSM and job-specific stressors will be significant predictors of the strain experienced by managers.
H2. The augmented model of job strain, where the generic model has been augmented by job-specific stressors, will explain significantly more of the variance in job strain than if the JSM is used alone.

Two outcome variables that are frequently used to measure the job strain experienced by managers are psychological health and job satisfaction (e.g. Bogg and Cooper, 1995; Leong et al., 1996; Sparks and Cooper, 1999). To enable comparisons to be made with these studies, the present study will therefore examine the capacity of the JSM and job-specific stressors to predict the psychological health and job satisfaction experienced by managers.

Method

Sample

The participants in the present study were members of a Master of Business Administration alumni association. The vast majority of these members were in managerial positions within private and public sector organisations and were based in Australia. A total of 550 members listed on the alumni association’s mailing list were invited to take part in this study. Questionnaires were sent directly to members. A covering letter requested members to complete their questionnaires and return them to the authors in a stamped, self-addressed envelope. After two weeks, a reminder notice was distributed and replacement questionnaires were provided for those members who had lost or misplaced their original copy.

A total of 27 members were no longer at the address provided by the alumni association, while four did not wish to participate. Of the remaining 519 members, 221 completed and returned their questionnaires; a response rate of 42.5 per cent. This sample consisted of 172 males and 49 females. Just over 80 per cent of respondents were aged between 31 and 50 years of age, while almost 90 per cent were married or in long-term relationships. Four out of every five respondents had one or more people who reported to them.

Measures

The questionnaire used in this study was divided into three sections. The first section included two self-report scales that were designed to measure the dependent variables, psychological health and job satisfaction. The scales covered in the second section assessed the independent variables and these included job control, job demand, social support and job-specific stressors. In the third section, respondents were requested to provide demographic information, including age, marital status and the number of people who reported to them.

Psychological health. The GHQ-12 (Goldberg and Williams, 1988) was used to measure self-perceived psychological health. The GHQ-12 has been designed to be a valid indicator of current psychological health (Banks et al., 1980). The scale itself consists of two sets of six items. The first set deals with healthy functioning and the second set deals with abnormal functioning. Participants were asked to complete a four-point scale ranging from “not at all” (scored as zero) to “much more than usual” (scored as three). The scale had a Cronbach’s
Job satisfaction. Job satisfaction was measured using a scale developed by Warr et al. (1979). The 15-item scale was designed to measure the level of satisfaction/dissatisfaction felt by subjects in relation to various features of work conditions, management, promotion, salary, job security, and co-workers. Participants were asked to respond on a seven-point scale ranging from “very satisfied” to “very dissatisfied” (i.e. the higher the score, the higher the dissatisfaction). The scale had a Cronbach’s alpha of 0.91.

Control. Participant perceptions of the amount of control they experienced at work were measured using the 22-item scale developed by Dwyer and Ganster (1991). The scale covers a range of work domains, including the control over the variety of tasks performed, pacing, scheduling of rest breaks, procedures and policies in the workplace, and the arrangement of the physical environment (Fox et al., 1993). Participants were asked to respond to a scale ranging from “not at all” to “a great deal”. The scale had a Cronbach’s alpha of 0.92.

Job demand. The quantitative workload scale (Caplan et al., 1980) was used to measure job demands. This is an 11-item scale that assesses perceptions of the amount and the pace of each participant’s workload, and encompassed both psychological and physical job demands. Participants were asked to respond on a five-point scale ranging from “rarely” to “very often”. The scale had a Cronbach’s alpha of 0.89.

Social support. Although the stress moderating effects of social support are well documented (refer Cohen and Syme (1985) for a review), evidence suggests that work-based support is central to preventing and or reducing the adverse effects of work-related stress (Beehr, 1985; Beehr et al., 1990; House, 1981). On the basis of these findings, the present study will measure both work and non-work sources of social support. Support in work and non-work life were measured separately using the 17-item scale developed by Etzion (1984). Participants were asked to indicate the extent that various support features are present in their work and non-work lives. Nine of the items assessed the level of support received from work sources (i.e. supervisors, co-workers and subordinates) while the remainder measured the support from non-work sources (i.e. family and friends). Participants recorded their responses on a five-point scale ranging from “always present” to “never present”. The Cronbach’s alpha for the work and non-work sub-scales were 0.86 and 0.89 respectively.

Job-specific stressors. Participants were asked to complete a 21-item, sources of stress scale that required them to indicate the extent that each of the factors listed were a source of stress in their job as a manager. A five-point scale ranging from “not at all” to “major source of stress” was provided. The job-specific stressors scale was based on the results of two qualitative studies involving managers enrolled in a university-based Master of Business Administration program. The items listed on the scale, as well as the language used, were tailored to the situations and conditions typically experienced by managers. The sources of stress items that resulted from the piloting process can be found the Appendix.

Results
All statistical analyses were undertaken using SPSS 8.0 for Windows (SPSS, 1998). Pre-analysis screening revealed there were no patterns identified in the missing data and the missing values were randomly dispersed among the variables. Missing data were treated using listwise deletion (Roth, 1994).

The descriptive statistics and correlations shown in Table I indicate that there is a substantial number of significant correlations among the independent variables and between the independent and the dependent variables. All the components of the JSM and the job-specific stressors were correlated with psychological health. Similarly, job control, support from non-work sources (i.e. components of JSM) and a lack of resources to accomplish tasks (i.e. job-specific stressor) were significantly correlated with job dissatisfaction. Also of note are the many significant correlations between the JSM variables and the job-specific stressors. From these correlations alone it is not possible to determine the relative importance of the generic and job-specific stressors. Multiple regression was therefore used to clarify the predictive capacity of the JSM and the job-specific stressors.

Only the four most commonly acknowledged sources of stress were used in the multiple regression analyses. The selection of the most common managerial stressors was designed to ensure that the augmented model was applicable to as many of the participants as possible. This broad applicability then gave the job-specific stressors the best possible chance of being predictive of the target variables. The four job-specific stressors were identified by taking those stressors that were rated by at least 20 per cent of respondents as being “large” or “major” sources of stress. These stressors and the percentage of respondents who rated them as large or major sources of stress were: difficulty balancing work and non-work commitments, 34 per cent; length of working week, 26 per cent; lack of resources to accomplish tasks, 22 per cent; and; constant pressure to perform to a high standard, 20 per cent. There was a 5 per cent difference between these stressors and the next most frequently identified stressor and, as a consequence of their low frequency rates, the remaining job-specific stressors were not included in the multiple regression analysis.

A two-step hierarchical regression was performed for each of the target variables, psychological health and job dissatisfaction. The global stressors, job demand and job control, along with work and non-work support were entered in the first block so as to ascertain their effects on the independent variables. Table II presents the results of this regression for each of the target variables. The data were examined for outliers, skewness and kurtosis and multivariate normality and no major violations of assumptions were detected. Collinearity statistics also revealed that none of the variables exceeded the collinearity threshold (Tabachnick and Fiddell, 1996).

The results of the multiple regression analyses indicate that the support from work sources and job control were significant predictors of both psychological health and job dissatisfaction. In terms of job specific stressors, a lack of resources to accomplish tasks was predictive of job dissatisfaction. Swapping the order of the blocks of predictor variables achieved the same results.

The overall equation shown in Table II significantly explains the variance in worker dissatisfaction, $R^2_{adj} = 0.613$, $F(8,157) = 33.61, \ p < 0.001$. The same equation also proved
significant for the outcome measure psychological health with $R^2_{adj} = 0.293$, $F(8,159) = 9.64, p < 0.001$. However when looking at the total amount of variance ($R^2$) that is explained by the predictor variables, the combined influence of job demand, job control and social support contributed 98 per cent of the explained variance in job satisfaction and 90 per cent of the explained variance in psychological health. Furthermore, the contribution made by the job-specific variables reached a significant level ($p < 0.05$) for psychological health only. The variance in job satisfaction that was attributed to the job-specific variables was not significant.

**Discussion**

The focus of the present study was to assess the relative influence of the JSM and job-specific stressors on the strain experienced by a group of Australian managers. It was hypothesised that both generic and job-specific stressors would be predictive of the job strain experienced by managers. It was also hypothesised that an augmented model of job strain, that includes generic and job-specific stressors, would explain a significantly greater proportion of the job strain than if the generic model was used alone. Although the results support the first hypothesis, there is only weak support for the second.

**The influence job-specific stressors**

Only one job-specific stressor was found to predictive of strain in the present study. This was a lack of resources to accomplish tasks. The influence of this stressor is not unexpected and can be seen to reflect the highly competitive environments that many organisations are now operating in. With the deregulation of markets and the emergence of international competitors, organisations in both the private and public sector are continually looking at ways of increasing productivity while reducing resources (Dunford and Bramble, 1998). The need to cut costs and “to do more with less” shows no signs of abating (Burke and Leiter, 2000) and it appears that a lack of resources will continue to be a key source of strain for managers well into the future.

The predictive capacity of the job-specific variable, a lack of resources to accomplish tasks, supports the view that occupational stress investigations should be guided by generic models of job strain that have been augmented by job specific variables (Beehr et al., 2000; Sparks and Cooper, 1999). However, the relatively small portion of explained variance that is attributed to the job specific stressors (2 per cent for job satisfaction and 10 per cent for psychological health) provides only partial support for the use of an augmented model. The vast majority of the explained variance in job strain was accounted for by the JSM. This result provides a more telling insight into the relative influence of generic and job-specific models and strongly suggests that an augmented model will add little value to an investigation into the strain experienced by managerial personnel. Furthermore, the large amount of variance attributed to the JSM indicates that job specific stressors are not as critical as other studies have found (Beehr et al., 2000; Narayanan et al., 1999; Sparks and Cooper, 1999). These studies did not employ the JSM to investigate the relative influence of generic and job-specific stressors and, on this basis, Karasek’s expanded model (Karasek and Theorell, 1990) could be regarded as a more suitable framework for examining the work-strain relationship. This view is consistent with previous studies that have found demand,
control and support to be predictive of job strain within single occupational groups as well as between an array of different occupations (Karasek, 1979; Karasek and Theorell, 1990; Payne and Fletcher, 1983).

**The influence of the JSM**

The results show that job control and social support from work sources were found to have a particularly significant effect on managerial strain. The significant relationship between job control and both outcome variables is consistent with previous studies investigating the effect of job control on the stress experienced by managerial staff (Bogg and Cooper, 1995; Cooper and Hensman, 1985). The predictive capacity of job control also parallels previous research, indicating that a lack of autonomy has become an increasingly significant source of dissatisfaction among managers, particularly middle and lower-level managers (European Foundation for the Improvement of Living and Working Conditions, 1999; Worrall and Cooper, 1999). This growing level of dissatisfaction may be reflective of the trend for organisations to become increasingly more decentralised and to empower shop-floor employees with greater decision-making responsibilities (Denham et al., 1997; Staehle and Schirmer, 1992). However, while middle and lower-level managers, in particular, are required to delegate their decision-making power to subordinates, they are still expected to be accountable for the performance of the work unit (McConville and Holden, 1999). At the same time, managers are also obliged to implement policies and systems that have been developed largely by CEOs, directors, and executives. The lack of input into broader policy decisions increases the gap between responsibility and authority and creates even more strain for the manager (McConville and Holden, 1999).

The valuable role played by work-based support was also evident in the present study. The predictive capacity of social support is consistent with other research showing that social support accounted for additional variance over and above job demand and job control (Fletcher and Jones, 1993) and further reinforces the usefulness of the expanded JSM. However, not all sources of social support were predictive of job strain in the present study. The results indicate that while support from work sources was a significant predictor of both health and job satisfaction, support from non-work sources had little impact on the amount of explained variance. These findings support previous studies indicating that work-based support is central to preventing or reducing occupational stress (Beehr et al., 1990; House, 1981; Leong et al., 1996; Terry et al., 1993). The findings are also consistent with the disaggregated or functional approach to social support whereby the support provided is appropriately matched to the specific needs activated by the stressor (Cutrona, 1990; Sarason et al., 1990). For this matching to occur, the support needs to be provided by someone who has the knowledge, ability, or authority to address the needs that the particular stressor/s activate (Gottlieb, 1983; Terry et al., 1993). In the case of managers, job stressors such as work overload can only be addressed by people who have the knowledge or the decision-making power to reduce the volume or complexity of work undertaken. Although family and friends may be able to provide valuable emotional support that helps the individual cope with demanding periods, only senior staff, colleagues and subordinates are capable of arranging or providing the assistance that is needed to actually reduce the workload.
However, the unique role and position held by many managers, especially those below the most senior level, may make this occupational group particularly vulnerable to receiving inadequate levels of work-based support. The position of managers in an organisation typically places them at the interface between the most senior members of the organisation and shop-floor employees (Denham et al., 1997; Albrecht, 1979). In this position, managers face the difficult task of mediating a firm’s policy decisions downward through the hierarchy and making sure that those decisions are instituted on time and in the manner they were intended. However, as the public face of the management team, middle and lower-level managers are often the recipients of criticism and aggravation from employees who do not support the changes. Many managers are therefore responsible for managing the sharpest point of conflict in employment relations (Denham et al., 1997). This conflict can often lead to strained relationships that, in turn, reduces the level of work-based support that managers receive. Constantly being in the position of “piggy in the middle” (Denham et al., 1997, p. 3), can therefore expose managers to stressful situations where they are at risk of not having the functional support needed to address the source/s of the stress.

There are a number of limitations that need to be kept in mind when assessing the results of the present study. The study employed a cross-sectional design and therefore the results are limited to the period that the participants were surveyed. The ability to develop firm conclusions regarding the relative influence of the generic components of the JSM and job-specific stressors would be strengthened by a longitudinal study. Testing this combined model on more than one occupational group would also enhance the findings. It is possible that job control and social support were particularly relevant to the conditions experienced by managers and that this same level of relevance would not be found in other occupations. Although previous studies support the cross-occupational relevance of the JSM (Karasek, 1979; Karasek and Theorell, 1990; Payne and Fletcher, 1983), a study that tested the augmented model on a number of occupations would help clarify the relative influence of generic and job-specific stressors.

In summary, the large proportion of strain that was explained by the JSM indicates that this model captures the key work characteristics that contribute to the strain experienced by managers. Although there was some support for augmenting generic models of job strain with job-specific models, the predictive capacity of the more situation-specific variables was relatively small. These results support previous studies that have examined the predictive capacity of the JSM and indicate that no augmentation is needed when investigating the work characteristics that contribute to managerial strain.
### Table I. Descriptive statistics and correlations among study variables for managers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychological health</td>
<td>20.69</td>
<td>4.72</td>
<td>–</td>
<td>–</td>
<td>0.42**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>2. Job dissatisfaction</td>
<td>45.97</td>
<td>12.53</td>
<td>–0.22**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>3. Job demand</td>
<td>43.43</td>
<td>6.03</td>
<td>–0.31**</td>
<td>0.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>4. Job control</td>
<td>75.25</td>
<td>12.55</td>
<td>0.39**</td>
<td>0.05**</td>
<td>–0.19**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>5. Support – non-work</td>
<td>47.90</td>
<td>10.94</td>
<td>0.24**</td>
<td>0.04</td>
<td>0.22**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>6. Support – work</td>
<td>42.86</td>
<td>9.75</td>
<td>0.42**</td>
<td>–0.71</td>
<td>–0.16*</td>
<td>0.53**</td>
<td>0.41**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>7. Difficulty balancing work and non-work</td>
<td>3.13</td>
<td>1.18</td>
<td>–0.35**</td>
<td>0.04</td>
<td>0.41**</td>
<td>–0.19**</td>
<td>–0.14*</td>
<td>–0.16*</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>8. Length of working week</td>
<td>2.87</td>
<td>1.27</td>
<td>–0.33**</td>
<td>0.09</td>
<td>0.56**</td>
<td>–0.15*</td>
<td>–0.13</td>
<td>–0.13**</td>
<td>0.58**</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>9. Lack of resources to accomplish tasks</td>
<td>2.57</td>
<td>1.19</td>
<td>–0.26**</td>
<td>0.27**</td>
<td>0.51**</td>
<td>–0.25**</td>
<td>–0.11</td>
<td>–0.35**</td>
<td>0.33**</td>
<td>0.33**</td>
<td>–</td>
</tr>
<tr>
<td>10. Constant pressure to perform to a high standard</td>
<td>2.67</td>
<td>1.09</td>
<td>–0.37**</td>
<td>0.09</td>
<td>0.51**</td>
<td>–0.13</td>
<td>–0.22**</td>
<td>–0.18*</td>
<td>0.47**</td>
<td>0.62**</td>
<td>0.51**</td>
</tr>
</tbody>
</table>

**Notes:** *p < 0.05; **p < 0.01

### Table II. Hierarchical multiple regression analysis of psychological health and job dissatisfaction for managers

<table>
<thead>
<tr>
<th>(Block) predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>$R^2_{adj}(Δ)$</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>$R^2_{adj}(Δ)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Job demand</td>
<td>–0.11</td>
<td>0.06</td>
<td>–0.13</td>
<td>–</td>
<td>0.15</td>
<td>0.13</td>
<td>–0.07</td>
<td>–</td>
</tr>
<tr>
<td>(1) Job control</td>
<td>7.60</td>
<td>0.08</td>
<td>0.20*</td>
<td>0.20**</td>
<td>–0.43</td>
<td>0.06</td>
<td>–0.12**</td>
<td>–0.42***</td>
</tr>
<tr>
<td>(1) Support – non-work</td>
<td>3.77</td>
<td>0.03</td>
<td>0.09</td>
<td>–</td>
<td>7.15</td>
<td>0.06</td>
<td>–0.06</td>
<td>–</td>
</tr>
<tr>
<td>(1) Support – work</td>
<td>0.02</td>
<td>0.04</td>
<td>0.18*</td>
<td>0.26***</td>
<td>–0.64</td>
<td>0.08</td>
<td>–0.10**</td>
<td>–0.48***</td>
</tr>
<tr>
<td>(2) Balancing work and non-work commitments</td>
<td>–0.57</td>
<td>0.31</td>
<td>–0.09</td>
<td>–</td>
<td>–1.28</td>
<td>0.66</td>
<td>–0.12</td>
<td>–</td>
</tr>
<tr>
<td>(2) Length of working week</td>
<td>–5.47</td>
<td>0.38</td>
<td>0.01</td>
<td>–</td>
<td>0.65</td>
<td>0.79</td>
<td>0.06</td>
<td>–</td>
</tr>
<tr>
<td>(2) Lack of resources to accomplish tasks</td>
<td>–0.42</td>
<td>0.30</td>
<td>–0.10</td>
<td>–</td>
<td>1.18</td>
<td>0.59</td>
<td>0.11*</td>
<td>–</td>
</tr>
<tr>
<td>(2) Constant pressure to perform to a high standard</td>
<td>–0.65</td>
<td>0.39</td>
<td>–0.15</td>
<td>0.05*</td>
<td>–9.55</td>
<td>0.83</td>
<td>–0.01</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**Notes:** *p < 0.05; **p < 0.01; ***p < 0.001

### References


**Further reading**


**Appendix**

**Job-specific stressors scale**

Failure to meet performance objectives

Difficulty balancing work and non-work commitments

Possibility of being re-trenched or made redundant

Not sure what you’d do if your current career came to an end

Not feeling a part of the team

Constant pressure to perform to a high standard

Length of working week

Criticism from senior management
Lack of feedback on how you’re performing
Unfair treatment from senior management
Lack of recognition for good work
Not having any say in what happens in your organisation
Lack of support when going through a stressful period
Disagreements/conflict with senior management
Disagreements/conflict with colleagues
Lack of opportunity to take on more senior roles
High levels of competition between employees
Excessive scrutiny from customers or general public
Inadequate salary
Injury or illness
Lack of resources to accomplish tasks