Job Stress, Wellbeing, Work-Life Balance and Work-Life Conflict Among Australian Academics

Amanda S. Bell (amanda.bell@monash.edu)  
Faculty of Education, Monash University,  
Building 6, Clayton Campus, Wellington Road, Clayton 3168, Australia

Diana Rajendran (drajendran@swin.edu.au)  
Faculty of Higher Education, Swinburne University of Technology,  
Melba Avenue, Lilydale 3140, Australia

Stephen Theiler (stheiler@swin.edu.au)  
Faculty of Higher Education, Swinburne University of Technology,  
Melba Avenue, Lilydale 3140, Australia

Abstract
Escalating stress and pressures, along with organisational change in universities has led to the increased importance of research in to the impact of perceived job stress, work-life balance and work-life conflict amongst academics. Yet, very few studies have examined academics’ ability to balance work and personal life, and overcome work-life conflict. Drawing on Spillover theory (Zedeck, 1992), our study hypothesised that high levels of perceived job pressure stress and job threat stress would predict increased levels of work-life conflict, and decreased levels of work-life balance. Due to the well-documented relationship between stress and health, the influence of job stress on wellbeing was also investigated in this sample of academics ($N = 139$). Perceived job stress (threat and pressure-type stressors) was associated with poorer work-life balance, and increased conflict between academics’ work and personal lives. Perceived job threat-type stress made a stronger contribution and was a significant predictor of work-life balance and work-life conflict scores, than perceived job pressure-type stress. Perceived job threat-type stress among academics was also a significant predictor and associated with poorer wellbeing and increased ill-being, but perceived job pressure-type stress was not related to academics’ wellbeing or ill-being.

Keywords: Work-Life Balance; Work-Life Conflict; Job Stress; Academics; Wellbeing.

Introduction
The reality of working life today is that employees are constantly trying to juggle their work and personal lives. In their struggle to balance both, it is often the influence or the interference of one on the other that leads to positive or negative ‘spillover’. Mauno et al. (2006, p. 210) posit that “work-family conflict is unavoidable in modern Western life”. One possible explanation for increasing work-life problems for employees and organisations around the world is ever increasing job stress. Many organisations today are facing the pressure of market-driven globalisation and an unwavering demand for growth and efficiency (Mauno, et al., 2006). As a result of the increased need for employee work-life balance initiatives, work-life balance and work-life conflict have been increasingly studied in the last two decades. Work-related stress has been identified as one of the largest problems in the European Union working environment (Skakon, Nielsen, Borg, & Guzman, 2010). Job stress has been widely linked with adverse effects on employees’ psychological and physical wellbeing in many occupations, including academics (Kinman & Jones, 2003). Job stress therefore represents a large emotional cost to employee wellbeing and puts a considerable financial burden on organisational performance (Blackburn, Horowitz, Edington, & Klos, 1986; Skakon, et al., 2010).

Mounting stress, pressure and organisational change in universities has led to increased research importance in the area of job stress on work-life balance and work-life conflict amongst academics. In the last fifteen years work pressure has been constantly rising within academia globally (Gillespie, Walsh, Winefield, Dua, & Stough, 2001; Perry, et al., 1997; van Emmerik, 2002). It has been argued that rising stressors in academia are ‘eroding’ the operating capabilities of universities (Perry, et al., 1997). This suggests that increasing levels of stress in university staff may be causing universities as institutions to not function as well as they might have in the past. Over the last decade, Australian universities have gone through large-scale organisational change, such as restructuring, downsizing and government funding cuts, and thus, consequential job stress is negatively impacting employees’ work and personal lives (Dickson-Swift, et al., 2009; Gillespie, et al., 2001; Rosser, 2004; Shah,
Work-Life Balance and Work-Life Conflict

The concepts ‘Work-life balance’ and ‘Work-life conflict’ have received much attention in academic literature (Hayman, 2005; Moore, 2007; Pocock, 2005). The terms work-life balance and work-family balance are often used interchangeably, but generally are applied to the same concept (e.g., Hill, Hawkins, Ferris, & Weitzman, 2001; Quick, Henley, & Quick, 2004; Reiter, 2007). ‘Work-life balance’ will be used in this paper as the authors believe it better encompasses work, personal and family responsibilities (Parkes & Langford, 2008; Quick, et al., 2004; Sullivan & Mainiero, 2008).

Often work-life balance is defined as the absence of conflict between work and family or personal roles (e.g., Frone, 2003; Quick, et al., 2004). Balance and conflict are separate constructs which coexist, whereby an individual can experience high levels of both concurrently (Balmforth & Gardner, 2006; Hanson, Hammer, & Colton, 2006; Wayne, Musisca, & Fleeson, 2004). Work-life balance is the degree to which an individual can simultaneously balance the emotional, behavioural and time demands of both paid work, family and personal duties (Hill, et al., 2001). In contrast, work-life conflict occurs when involvement in one domain, for example work or personal life, interferes with involvement in the other domain (Hanson, et al., 2006).

Work-Life Spillover theory states that a person’s attitudes, emotions, skills and behaviours produced in one domain (either work or personal life) flow into the other (Balmforth & Gardner, 2006; Frone, 2003; Zedeck, 1992). Spillover can have positive or negative effects, and can occur in both directions – work-to-personal life and personal life-to-work (Balmforth & Gardner, 2006; Hanson, et al., 2006; Hill, et al., 2001).

Work-life balance and work-life conflict are important issues for organisations, at the organisational and employee levels. Moore (2007) argues that organisations that provide long-term work-life balance cultures, create employee-company loyalty and positive employee attitudes to work. It is also argued that work-life balance benefits organisations indirectly, through increased well-being, decreased job stress and decreased burnout of its employees (Parkes & Langford, 2008). Good work-life balance and low work-life conflict are also linked to job satisfaction, organisational commitment, organisational citizenship behaviour, increased diversity and equity, productivity, improved bottom line, and lower turnover intention (see Allen, Herst, Bruck, & Sutton, 2000; Balmforth & Gardner, 2006; Waltman & Sullivan, 2007). Importantly, satisfactory work-life balance and low work-life conflict were also linked to non-work outcomes, such as life, family, marital and leisure satisfaction and family performance (Allen, et al., 2000).

Alternatively, high work-life conflict and low work-life balance are linked to reduced job satisfaction, lower organisational commitment, lower productivity and performance, lower career satisfaction and success, and higher absenteeism and intention to quit, as well as employee burnout, job stress, poorer physiological and psychological health, substance abuse, and diminished family functioning (see Allen, et al., 2000; Hobson, Delunas, & Kesic, 2001; Lingard, Brown, Bradley, Bailey, & Townsend, 2007; Prescott, Shaw, & Allikas, 2008; Tytherleigh, Webb, Cooper, & Ricketts, 2005; Waltman & Sullivan, 2007; Wang, 2006).

Much of the research on work-life balance and work-life conflict centred on flexible working arrangements (see De Cieri, Holmes, Abbott, & Pettit, 2005; Frone, 2003; Hill, et al., 2001; Kramar, 1998; Saltzstein, Ting, & Saltzstein, 2001; Waltman & Sullivan, 2007). Examples of human resource management initiatives aimed at promoting work-life balance include assisting with child care and elder care, telecommuting, flexible working hours, compressed working hours and job sharing (Byrne, 2005; Clark, 2000).

Few studies have investigated important influential predictors of work-life balance and work-life conflict. Some studies have postulated negative relationships between work-life balance and job stress, but have not statistically tested these relationships (e.g., Greenhaus & Beutell, 1985). The few studies that have investigated correlational predictors of work-life balance and work-life conflict suggest that stress plays an important role. High levels of job stress have been linked to decreased work-life balance and increased work-life conflict among different occupations (Wallace, 2005; Wong & Lin, 2007).

Job Stress, Wellbeing and Ill-being

Stress is defined as an event or situation that is perceived as threatening, demanding or challenging (Hardie, Kashima, & Pridmore, 2005). Lazarus and Folkman (1984) defined stress as a relationship between a person and their environment which is appraised as taxing and endangers his or her wellbeing.
Lazarus and Folkman (1984) postulated three phases of cognitive appraisal that occur during stressful situations, which have an impact on wellbeing, namely primary appraisal, secondary appraisal and reappraisal. Primary appraisal referred to the cognitive perceptual process whereby an individual perceives something as stressful, neutral or positive. Secondary appraisal involves evaluating what might be done about a stressful situation and the individual deciding whether they have the coping resources to deal with the stressor. Reappraisal involves an altered perception about how stressful the situation is based on new information from the environment. High stress leads to ill-being, especially where an individual lacks the coping resources or uses ineffective strategies to cope with stress (Hardie, et al., 2005; Lazarus & Folkman, 1984; Lazarus & Launier, 1978).

Schuler (1982) argued that the stress process has two elements: the actual interchange between the person and the environment; and the person’s responses over time to the stress experienced. Long-term stressors cause more severe health problems than short-term stressors (Schuler, 1982). Similarly, biological studies demonstrate that long-term stress can suppress immune function, whereas short-term stress can enhance immunity (Dhabhar, et al., 2010). Stress is clearly a complex phenomenon which health outcomes are dependent upon each individual and how they deal with stressor and over what time frame. Health consequences have been argued to occur in both the psychological and physiological realms (Stanton, Balzer, Smith, Parra, & Ironson, 2001).

Job stress can be defined as something in the work environment that is perceived as threatening or demanding, or is something in the work place which gives an individual an experience of discomfort (Stanton, et al., 2001). Job threat stress is described by individuals as qualities of work experience which induce feelings of being overwhelmed or nerve-wrecked. Job pressure stress is the perception of work being demanding or time-pressured (Stanton, et al., 2001). Higher levels of work related stress can lead to organisational problems, such as low productivity, increased absenteeism and turnover, as well as individual employee problems, such as alcohol and drug abuse, and ill-being (Jamal, 2005; Mostert, Rothmann, Mostert, & Nell, 2008). Environments with pressures at work, coupled with psychologically induced stress (job threat stress) have been associated with burnout, reduced job satisfaction, and lack of organisational commitment (Goddard, O’Brien, & Goddard, 2006; Jamal, 2005; Noblet, Teo, McWilliams, & Rodwell, 2005), which follows Lazarus and Folkman (1984) theory of stress and wellbeing.

Escalating Job Stress and Ill-Being for Academics

The increasing demands in universities globally over the last 20 years have been attributed to major reductions in government funding of public universities, growth of student numbers, increased focus on quality research and teaching, international and domestic competition and technological developments (Briggs, 2009; Churchman, 2006; Houston, Meyer, & Paewai, 2006; Jacobs & Winslow, 2004; Shah, 2012; Tytherleigh, et al., 2005; Winefield, et al., 2003). Growing competition, Mostert et al. (2008) claim, has also been attributed to lay-offs, mergers, rapidly changing technology and ever-increasing demands for higher quality products and services in higher education.

Increasing accountability of academics, mounting pressure to publish research, rising workloads, frequent restructuring, use of short-term contracts and additional external scrutiny are also believed to contribute to rising job stress (Dickson-Swift, et al., 2009; Houston, et al., 2006; Jacobs & Winslow, 2004; Tytherleigh, et al., 2005; Winefield, et al., 2003). Academic staff are now expected to fulfil multiple role demands within the work setting, for example, teaching, research, consultation and supervising research students (Brown, 2007; O’Laughlin & Bischoff, 2005). Academics are also dealing with the pressures of competing demands, such as balancing teaching with research, and attempting to balance traditional workloads with the presence of new pressures, such as teaching internationally and via online methods (Briggs, 2009; Brown, 2007). Academics are also required to bring money into the university through research grants or publications, as in Australia, research performance is evaluated and funded by the federal government based on research productivity (Dickson-Swift, et al., 2009).

Ironically, academics keenly research other groups of professionals, but barely take the time to study their own group (Gmelch, Wilke, & Lovrich, 1986). Much of the worldwide research (e.g., Germany, Syria, United States of America [USA] and United Kingdom [UK]) conducted on job stress and wellbeing has sampled professionals other than academics, such as secondary or primary school teachers (e.g., Schwarzer & Hallum, 2008) and managers (e.g., Hayes, 2007; Moore, 2007); little has been conducted with academic staff, particularly in Australia. Taris et al. (2001) argued that research evidence regarding primary and secondary school teachers cannot be generalised to the university setting, as the unique combination of teaching and research-related tasks is an important source of job stress in this domain. The few studies investigating job stress in Australian academics showed that, on average, academics experience higher levels of stress than general university staff (e.g., Gillespie, et al., 2001; Winefield, et al., 2003). Gillespie et al. also reported an
alarming rate of health problems amongst academics due to work-related stressors. Among Australian academics, Dua (1994) found that high levels of demand-related job stress were linked to increased negative affect, psychological distress and anxiety.

Compared to studies investigating job stress in the general working population, research studying the impact of job stress on academics is less understood (Gillespie, et al., 2001). A study by Rothmann (2008) reported an indirect relationship between job stress and ill-being, mediated by burnout amongst South African academics. Similarly, Kinman (2008) demonstrated that job demand-related stressors significantly increased physical symptoms of ill-being and psychological distress of academics in the UK. One-quarter of another academic sample in the UK reported suffering from anxiety and demand-related job stress illnesses, such as high blood pressure, migraine, recurrent virus infections and stomach ulcers (Kinman & Jones, 2003).

USA researchers Astin and Astin (1999) revealed that some of the effects of stress reported among academics were ill-being, divorce, over-consumption of caffeine and sleep deprivation. When academic staff are under significant stress, they are less likely to be effective educators, therefore academic stress should be regularly monitored (Niven & Cutler, 1995). Moreover, job stress among academics has also been found to predict intention to leave the academic profession (Barnes, Agago, & Coombs, 1998). As academics impact the lives of many students and other faculty members, monitoring and managing job stress in universities is extremely important (Lease, 1999).

### Rising Work-Life difficulties for Academics

Work-life balance and job stress issues are particularly relevant for academics, as juggling several different tasks, whether from the same or different roles (e.g., work and personal life), creates conflict (O'Laughlin & Bischoff, 2005). Academics in the UK who testified to more work-life conflict tended to be less healthy, less satisfied with their jobs, and more likely to have seriously considered leaving academia (Kinman & Jones, 2008). Work-life conflict among a sample of academics in the USA was primarily predicted by job stress, over and above average work hours, household responsibility, raising young children, satisfaction with day care and support of partner (O'Laughlin & Bischoff, 2005).

Full-time academics in the USA (regardless of rank or discipline type) have been found to work in excess of fifty work hours per week (Jacobs & Winslow, 2004; O'Laughlin & Bischoff, 2005). In addition, a large proportion of academics in New Zealand (NZ) worked more than ten hours of overtime in addition to their normal full-time hours (Houston, et al., 2006). A sample of academics in the UK felt they had little choice in working long hours, and over half reported that their personal lives suffered (Kinman & Jones, 2003). There are some provisions in place to help academics cope with job stress and work-life conflict issues. Like other organisations, these tend to be aimed at flexible working arrangements (Reiter, 2007) and stress management techniques (Kinman & Jones, 2003) but academics need to be proactive in utilising these initiatives.

### Aims and Hypotheses

The purpose of this research was to investigate the relationship between perceived job stress and work-life balance/conflict and wellbeing/ill-being amongst Australian academics. Based on previous literature, it was hypothesised that amongst Australian academic teaching staff high levels of perceived job threat stress would be positively related to (a) increased work-life conflict and ill-being, and (b) negatively related to work-life balance and wellbeing. It was also hypothesised that high levels of perceived job pressure stress would be positively associated with (a) increased work-life conflict and ill-being, and (b) negatively related to work-life balance and wellbeing.

### Method

#### Participants

One hundred and thirty-nine academic staff members employed in universities Australia wide (from higher education and technical college divisions) completed a voluntary self-report questionnaire. Eighty participants were female, 58 were male and one participant did not specify gender. Most came from the Social Sciences discipline (21.6%), and Business (16.5%), whilst small percentages also came from a variety of other disciplines. Participants’ ages ranged from 25 to 66 years of age ($M = 43.66$, $SD = 11.06$). The number of years participants had been employed in an academic position ranged from 0.25 years up to 40 years ($M = 7.88$, $SD = 7.41$); work contact hours per week ranged up to 70 hours ($M = 25.10$, $SD = 16.54$), with a modal response of 40 hours per week. Most were married (49.6%) or in a de facto relationship (20.9%) and the majority had children (57.6%).

Most participants were Australian born (70.5%) while small percentages were born in 18 other countries. Participants were mostly appointed at the Lecturer level (42.4%), and Tutors (22.3%), Senior Lecturers (16.5%), Associate Professors (3.6%), an ‘other’ academic level, while 4.3% did not specify their highest academic appointment. More participants described their work to include teaching and research (55.4%) than teaching only (23.0%) or research only (15.1%) or administrative duties (2.9%). Three-point-six percent indicated ‘other’ duties. Most participants were employed in urban (82.0%) and non-private universities (87.8%), while 18.0% percent were Professors (2.9%) and Department Heads (0.7%) were employed in remaining universities.
also represented. 1 Seven-point-two percent indicated employed by non-urban universities, and 10.1% private universities.

Measures
The first section of the questionnaire measured demographic variables, including age, gender, marital status, number of children, country of birth, highest current academic teaching appointment and academic duties. Demographic variables also included number of years employed in an academic position, discipline or faculty, number of work hours per week and type of university (urban vs non-urban; private vs non-private). The second section of the questionnaire included a job stress scale, wellbeing scale, work-life balance scale and a work-life conflict scale.

Job stress. Stanton et al. (2001) developed a self-report measure, the Stress in General scale (SIG), which measured perceived job stress based on Lazarus and Folkman’s (1984) definition and model of stress as applied to a work context. The SIG scale was designed to measure cognitive aspects of job stress generally (as distinct from job satisfaction and particular stressors or physiological responses to stress) in a wide range of workplaces. The 15-item scale was used to measure psychological feelings of stress job stress, such as feeling anxious and nerve wracked, which Lazarus and Folkman describe primary appraisal (ie feeling threatened). Participants indicated on a three-point rating scale (0 = No, 1.5 = Not sure, 3 = Yes) whether certain words and phrases, for example “demanding”, described their job (Stanton, et al., 2001, p. 873).

The measure consisted of two factors, job threat stress and job pressure stress. The job threat stress subscale consisted of eight items (irritating, under control, nerve-wracking, hassled, comfortable, more stressful than I’d like, smooth running and overwhelming) to describe job situations that gave participants a feeling of anxiety. The job pressure stress subscale consisted of seven items (demanding, pressured, hectic, calm, relaxed, many things stressful, and pushed), to indicate when participants felt time pressured by their jobs. Some items were reversed scored. Possible mean total scores could range from zero to three on both job pressure stress and job threat stress subscale scales. A high job pressure stress score represented participants perceiving their jobs to cause time pressure type stress, for example feeling time pressured, hectic and demanded. While low pressure scores suggested that participants perceived their jobs to cause little or no pressure related stress. A high threat score represented participants perceiving their jobs to cause them threat related stress, such as feelings of irritation, out of control, anxious and discomfort. Low job threat stress scores suggested participants perceived their jobs to cause little or no threat related stress.

Stanton et al. (2001) reported that both subscales demonstrated good internal consistency (job threat stress Cronbach’s alpha = .82, job pressure stress Cronbach’s Alpha = .88), and exploratory and confirmatory factor analyses supported a two-factor solution for job stress (Stanton, et al., 2001).

WellBeing and Ill-Being. An adaption of the Multidimensional Health States Scale – Short Form (Hardie, et al., 2005) assessed the extent to which an individual had experienced a range of physical and mental states related to wellbeing (WB) and ill-being (IB) in the past month. The 35-item scale was originally rated on a five-point scale (0 = not experienced to 4 = strongly experienced). Some researchers argue that forced-choice rating scales (those with an even number of points) give better validity than formats which offer a middle ‘neutral’ response (Kaplan & Saccuzzo 2005). DeVellis (2003) recommended using forced-choice formats when participants may be inclined to give a neutral response in order to avoid making a choice. As the researchers wanted to use a forced-choice format for this measure to indicate definite well-being or ill-being states, a six-point format was used for the MHSS-SF (Hardie et al. 2005) in this study (0 = not experienced to 5 = strongly experienced).

The scale included five WB subscales: social WB (friendly, sociable, cheerful, enthusiastic), somatic WB (physically fit, active, strong, agile), emotional WB (calm, relaxed, content, satisfied), cognitive WB (competent, confident, capable, alert, efficient), and sexual WB (sensual, attractive, affectionate). The scale also included three IB subscales: depression (miserable, gloomy, sad, depressed, troubled sleeping), anxiety (tense, nervous, worried, uptight, indecisive), and somatic symptoms (backache, muscle pain, headache, indigestion, abdominal pain).

Total mean scores were calculated for each subscale: emotional WB, social WB, physical WB, cognitive WB, sexual WB, depression, anxiety and physical IB. Total mean scores were also calculated for overall WB and overall IB. Possible total mean scores for total IB and total WB (and their subscale total scores) ranged from zero to five, with high scores reflecting higher frequencies of WB or IB experienced in the past month. The MHSS-SF has previously demonstrated good construct validity (Hardie, et al., 2005) and factor structure (Morris, 2008); total WB and IB measures
have shown good internal consistency (Hardie et al. 2005; Cronbach alpha for WB = .92 and IB = .90).

**Work-Life Balance.** Hill et al.’s (2001) five-item Work-Family Balance scale, based on Spillover theory (Zedeck, 1992), was used to measure the degree to which an individual was able to balance simultaneously the emotional, behavioural and time demands of both paid work and family (if relevant) or personal duties. The original rating scale ranged from one to five on four items and from one to seven on one item. Each of these ratings were given different values, such as strongly agree/disagree, very easy/difficult, never/always and extremely successful/unsuccessful, for example “How easy or difficult is it for you to balance the demands of your work and your personal and family life” (Hill, et al., 2001, p. 52).

For the purpose of the current study, the term ‘work-life balance’ was used to encompass personal as well as family responsibilities (Parkes & Langford, 2008; Sullivan & Mainiero, 2008), as not all individuals have family responsibilities. In line with Murphy and Davidshofer’s (2001) recommendation to use between five and nine points on a rating scale for reliability and validity, Kaplan and Saccuzzo (2005) argued that the optimal number of responses for a rating scale was seven. To be consistent and optimise reliability and validity, participants in this study rated the five items on a scale (1 = totally disagree to 7 = totally agree), for example “Finding time to relax is difficult for me.” (Riddle, 2001, p. 258). Where wording of the items related to only family responsibilities, items were changed slightly to reflect, friends and personal life responsibilities. For example “I feel torn between my hectic work schedule and caring for my family”, was changed to “… caring for my family and friends”. Possible total average scores ranged from one to seven where a high score represented high levels of work-life conflict and a low score represented low levels of work-life conflict.

**Procedure**

A university approved email broadcast was sent out to all post-secondary higher education teaching staff of an Australian university inviting voluntary and anonymous participation. Full-time, part-time and sessional teaching staff from urban and non-urban, private and non-private universities were invited to participate. A weblink was provided in the email, which directed participants to the online questionnaire. Participants were also invited to forward the weblink and research details to teaching staff in other universities Australia-wide. A short advertisement inviting participation in the study was also placed in an Australian University academics’ magazine (Campus Review).

**Results**

Descriptive statistics are shown in Table 1. On average, academics in this sample experienced relatively low likelihood of perceiving job threat stress and moderate likelihood of perceiving job pressure stress; medium

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Threat Stress</td>
<td>1.17</td>
<td>0.83</td>
<td>0.00</td>
<td>3.00</td>
<td>0-3</td>
</tr>
<tr>
<td>Job Pressure Stress</td>
<td>2.07</td>
<td>0.90</td>
<td>0.00</td>
<td>3.00</td>
<td>0-3</td>
</tr>
<tr>
<td>Work-Life Balance</td>
<td>4.34</td>
<td>1.45</td>
<td>1.20</td>
<td>7.00</td>
<td>1-7</td>
</tr>
<tr>
<td>Work-Life Conflict</td>
<td>3.98</td>
<td>1.69</td>
<td>1.00</td>
<td>7.00</td>
<td>1-7</td>
</tr>
<tr>
<td>Wellbeing</td>
<td>3.25</td>
<td>0.88</td>
<td>0.70</td>
<td>5.00</td>
<td>0-5</td>
</tr>
<tr>
<td>Ill-Being</td>
<td>1.99</td>
<td>1.13</td>
<td>0.00</td>
<td>5.00</td>
<td>0-5</td>
</tr>
</tbody>
</table>

Note. N = 139
levels of work-life balance work-life conflict; moderate levels of wellbeing and low levels of ill-being. Cronbach’s alpha reliabilities were calculated for each of the scales to determine satisfactory reliability of the measures in the present study (see Table 2). Bivariate correlations determined significant relationships between the two perceived job stress variables (job threat stress and job pressure stress) and work-life balance, work-life conflict, wellbeing and ill-being. Table 3 shows the results of the standard multiple regressions. Job threat stress made the strongest unique contribution to both wellbeing, ill-being, work-life conflict and work-life balance, than did job pressure stress.

Table 2 presents the reliability coefficients and Pearson correlations. Perceived job threat stress and job pressure stress were strongly and negatively related to work-life balance, and strongly and positively related to work-life conflict. Both moderately and negatively related to wellbeing, but weakly and positively to ill-being. In all cases, perceived job threat stress was more strongly related to work-life conflict, work-life balance, wellbeing and ill-being, than was job pressure stress.

Standard multiple regressions (see Table 3) established that perceived job threat stress and job pressure stress together explained 55% ($R^2_{adj} = 0.54$) of the variance in work-life balance ($F(2,136) = 83, p < 0.01$); job threat stress made the strongest unique contribution. Job threat stress and job pressure stress together explained 61% ($R^2_{adj} = 0.60$) of the variance in work-life conflict ($F(2,136) = 104, p < 0.01$); job threat stress again made the strongest unique contribution.

Perceived job threat stress and job pressure stress together explained 34% ($R^2_{adj} = 0.33$) of the variance in wellbeing ($F(2,136) = 34.47, p < 0.01$); however job threat stress was a significant predictor of wellbeing, whereas that of job pressure stress was not. Perceived job threat stress and job pressure stress together explained 25% ($R^2_{adj} = 0.23$) of the variance in ill-being ($F(2,136) = 22.04, p < 0.01$); again job threat stress was a significant predictor of ill-being (see Table 3).

Table 3

Summary of Standard Multiple Regression Analysis for Job Stress and Work-Life Balance, Work-Life Conflict, Wellbeing and Ill-Being

<table>
<thead>
<tr>
<th>Dependent</th>
<th>Predictor</th>
<th>$B$</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellbeing</td>
<td>Job Pressure Stress</td>
<td>-0.14</td>
<td>-.14</td>
</tr>
<tr>
<td>(Adjusted $R^2 = .33$)</td>
<td>Job Threat Stress</td>
<td>-0.51</td>
<td>-.48*</td>
</tr>
<tr>
<td>Ill-being</td>
<td>Job Pressure Stress</td>
<td>0.10</td>
<td>.08</td>
</tr>
<tr>
<td>(Adjusted $R^2 = .23$)</td>
<td>Job Threat Stress</td>
<td>0.59</td>
<td>.44*</td>
</tr>
<tr>
<td>Work-life Balance</td>
<td>Job Pressure Stress</td>
<td>-0.50</td>
<td>-.31*</td>
</tr>
<tr>
<td>(Adjusted $R^2 = .54$)</td>
<td>Job Threat Stress</td>
<td>-0.87</td>
<td>-.50*</td>
</tr>
<tr>
<td>Work-life Conflict</td>
<td>Job Pressure Stress</td>
<td>0.58</td>
<td>.31*</td>
</tr>
<tr>
<td>(Adjusted $R^2 = .60$)</td>
<td>Job Threat Stress</td>
<td>1.10</td>
<td>.54*</td>
</tr>
</tbody>
</table>

Note. $N = 139$. * $p < 0.001$.

Discussion

In light of increasing job stress in universities, there are few studies which have examined academics’ ability to balance work and personal life, and overcome work-life conflict in a statistical manner. Drawing on Spillover theory (Zedeck, 1992), this study investigated whether high likelihood of perceiving job pressure stress and job threat stress would predict increased levels of work-life conflict, and decreased levels of work-life balance. As the relationship between stress and wellbeing is so well evidenced in the general population, the relationship between perceived job stress and wellbeing and ill-being was also investigated in this sample of Australian academics, based on

In general there was mixed support for our hypotheses. Our first hypothesis that amongst Australian academic teaching staff, high perceived job threat stress would (a) increase work-life conflict and ill-being, and (b) reduce work-life balance and wellbeing; was supported. When academics felt irritated, lacking control, nerve-wracked, hassled, uncomfortable and overwhelmed due to their work, they experienced less balance between their work and personal lives, less wellbeing, more conflict between their personal and work lives, and more ill-being. In addition, when they felt demanded, pressured, hectic, agitated, tense and pushed by work pressures, they experienced less work-life balance, and more work-life conflict.

However, our second hypotheses, that a high likelihood of perceiving job pressure stress would (a) increase work-life conflict and ill-being, and (b) decrease work-life balance and wellbeing; was only partially supported. Surprisingly, feelings of job demand and pressure did not increase academics’ ill-being, or decrease their wellbeing, but it did predict lower work-life conflict and increased work-life balance. Furthermore, feelings of anxiety, and being internally threatened by work, were more strongly associated with academics’ work-life balance and work-life conflict than were time and pressure demands.

It is likely that perceived job pressure stressors (e.g., immediate deadlines and being under pressure to complete tasks) resulted in academics taking unfinished work home to complete. In the short-term, this could have led to work and personal life conflicting, and having less time to balance work and personal responsibilities. The presence of perceived job threat stressors (e.g., conflict with colleagues, teaching and research difficulties or need for professional development) may also have resulted in work-related anxiety, which in turn may have affected the academics’ personal life and wellbeing. Perhaps in the long-term, this could also lead to work and personal life conflicting, role conflict at work, having less mental energy to balance personal and work responsibilities, and ill-being.

These results lend support to Zedeck’s (1992) Spillover theory, which states that a person’s attitudes, emotions, skills and behaviours produced in one domain (either work or personal life) flow into the other. The results support a negative spillover hypothesis between work and personal life, as perceived job threat stress and job pressure stress predicted academics’ ability to balance their personal and work lives, directly led to increased conflict between academics’ work and personal lives. Perceived job threat stress also predicted academics’ wellbeing and ill-being.

The results also lend some support to Lazarus and Folkman’s (1984) model of stress and wellbeing. Perceived job threat stress did lead to poorer wellbeing and higher ill-being among academics, however, perceived job pressure stress did not significantly predict wellbeing or ill-being, once job threat stress was controlled. As Schuler (1982) has argued, and recent biological studies support (Dhabhar, et al., 2010), long-term stressors cause more severe health problems than short-term stressors’; it is possible that the academics sampled in this study may have been experiencing specific job-related anxiety for longer than job related demands and pressures.

The findings are also consistent with research conducted by Greenhaus and Beutell (1985), Wallace (2005), Wong and Lin (2007) and O’Laughlin and Bischoff (2005), which have indicated that high levels of job stress tend to decrease work-life balance and increase work-life conflict among a variety of occupations across the globe, including academics. The results were also consistent with previous studies worldwide which have demonstrated a harmful influence of anxiety-related job stress on wellbeing amongst academics (e.g., Astin & Astin, 1999; Gillespie, et al., 2001; Kinman & Jones, 2003), and amongst other occupations, such as managers (e.g., Hayes, 2007; Moore, 2007) and primary or secondary school teachers (e.g., Schwarzer & Hallum, 2008).

Recommendations

Both forms of perceived job stress (threat and pressure) in the present study contributed to academics’ perceived ability to balance their personal and work lives, and were associated with increased conflict. Feeling anxious and being internally threatened by work (job threat stress) were more strongly associated with academics’ work-life balance and work-life conflict than time and pressure demands (job pressure stress). However, in order to reduce these two groups of stressors, it is argued that there is an organisational and individual responsibility to do so. In the first instance, University Human Resource departments and managers may be in the best position to facilitate assistance and interventions for employees to reduce interrelated stressors (Blackburn, et al., 1986) and build resilience amongst staff.

Assistance from a supervisor has been found to be more important for work related problems than family support, just as support from a spouse is more likely to be beneficial for personal life-related stress (van Emmerik, 2002). Nevertheless, despite existing organisational interventions aimed at preventing work-life problems in universities, such as flexible work schedules and support from co-workers (Gillespie, et al., 2001), perceived job stress and work-life conflict are still major concerns. Universities may need to offer more specific programs and interventions that focus on reducing job threat symptoms and thus promote work-
life balance and reduce work-life conflict. It is important that universities encourage these sorts of programs, because even though many universities already have Employee Assistance Programs (EAPs) in place (e.g., Monash University, 2009; Swinburne University of Technology, 2009), these consultations mainly focus on the individual having the problem rather than the workplace needing to adopt suitable accommodations to reduce stressful environments.

In order to reduce perceived job threat stressors on work-life issues and employee wellbeing, person-centred stress management techniques could be recommended. Examples are providing relaxation/mindfulness meditation classes, exercise promotion and providing facilities such as gymnastums, promotion of healthy eating and providing good food choices, and counselling (Aderman & Tecklenburg, 1983; Bruning & Frew, 1985; Palmer & Dryden, 1994; Richardson & Rothstein, 2008; Stone, 2008). For example, McCraty, Barrios-Choplin, Rozman, Atkinson and Watkins (1998) found that a simple but targeted emotional self-management program using biofeedback significantly increased positive affect and decreased negative affect in 30 adults in just four weeks.

Job pressure stressors could be addressed via job-centred stress management interventions. Examples of such interventions include planning and time management skills, modifying the experience of stressors, stress audits and changing employees’ work environment and building resilience (Bond & Bunce, 2000; Bruning & Frew, 1985; Gallos, 2006; Palmer & Dryden, 1994; Richardson & Rothstein, 2008; Stone, 2008).

Furthermore, an important role of the human resource manager is to promote policies that implement corporate social responsibility, employee wellbeing and work-life balance. It has been found that academics experience the same detrimental impact of job stress on work-life balance and conflict (e.g., Greenhaus & Beutell, 1985; Wallace, 2005; Wong & Lin, 2007) and wellbeing (e.g., Hayes, 2007; Moore, 2007; Schwarzer & Hallum, 2008) as has been found in other occupations.

Limitations and Suggestions for Future Research

The sole use of quantitative data collection methods and analysis could have limited the scope of the study; for example, qualitative methods could collect more rich sources of information (MacDonald & Friedman, 2002). A multi-method approach that combines qualitative and quantitative methods could be considered in future studies, to avoid methodological biases (Dyer, 2006). As self-report measures can create biases in the data (Dyer, 2006), it may be useful for further studies to incorporate observation and peer-report information. Another limitation of the study was the inability to test thoroughly the causal relationships between job stress and work-life issues due to correlational analyses and single time point data.

Longitudinal studies have shown robust correlations between work-life conflict/balance and other variables (Mauno, et al., 2006). Future studies (that have larger sample size) could consider using longitudinal data and structural equation modeling to test theorised causal relationships between job stress, wellbeing and work-life issues. For example, whether job threat and pressure stress have different and direct influences on wellbeing and work-life issues over time and examining directional relationships of work-life issues, for example work-to-family negative spillover, and family-to-work positive spillover (Balmforth & Gardner, 2006; Hanson, et al., 2006) could also be useful.

It would also be beneficial to further investigate mediators and moderators of job stress on wellbeing and work-life issues, such as spirituality or personality. Investigating work-life balance and work-life conflict interventions aimed at preventing stress could also be very valuable to human resource managers. In addition, assessing whether job stress has a detrimental association with work-life issues in academic and various other occupational samples outside of Australia is necessary for future research.

Conclusion

This paper contributes to the area of study in that it investigated correlational relationships between job-related stress, health, work-life balance and work-life conflict among academics. Job stress in universities globally has been increasing over the last few decades and has important implications for academic staff performances and student outcomes. Despite its importance, there has been a lack of research conducted in this area of academia. As academics impact the lives of many students and other faculty members, monitoring and managing job stress in universities is extremely important. Even with the availability of employee assistance programs in universities such as stress management and flexible work arrangements, the complex nature of stress still seems to influence academics’ health and work-life balance negatively. Further research is required in the area of stress, health and work-life balance in order to better understand the relationships between these variables and help universities on how to effectively improve academic work life.

References


Bell, Rajendran & Theiler: Job stress, wellbeing and work-life balance of academics. 34


Bell, Rajendran & Theiler: Job stress, wellbeing and work-life balance of academics.


van Emmerik, I. H. (2002). Gender differences in the effects of coping assistance on the reduction of burnout in academic staff. Work & Stress, 16(3), 251-263. doi: 10.1080/026783702100034593


Wayne, J. H., Musica, N., & Fleeson, W. (2004). Considering the role of personality in the work-family experience: Relationships of the big five to work-family...


**Correspondence to:** Amanda S. Bell  
Monash University,  
Faculty of Education, Building 6, Clayton Campus,  
Wellington Road, Clayton, 3168  
amanda.bell@monash.edu  
Phone (w): +61 3 9905 2129