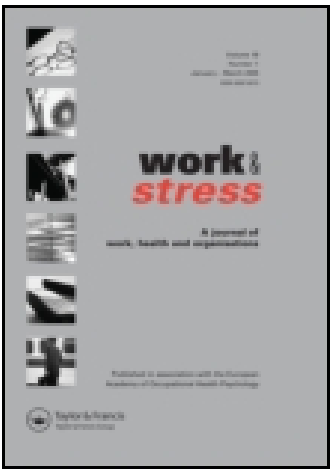

Work & Stress: An International Journal of Work, Health & Organisations

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/twst20

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Published online: 26 Nov 2010.

To cite this article: N. A. Gillespie , M. Walsh , A.H. Winefield , J. Dua & C. Stough (2001) Occupational stress in universities: Staff perceptions of the causes, consequences and moderators of stress, Work & Stress: An International Journal of Work, Health & Organisations, 15:1, 53-72

To link to this article: http://dx.doi.org/10.1080/02678370117944

WORK & STRESS, 2001, VOL. 15, NO. 1, 53–72



# Occupational stress in universities: staff perceptions of the causes, consequences and moderators of stress

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*Keywords:* *Job stress; Academic staff; University staff; Lists of stress.*

In recent years, the Australian university sector has undergone large-scale organizational change, including restructuring, downsizing and government funding cuts. At the same time, research from across the globe reports an alarming increase in the occupational stress experienced by university staff. We report on the first phase of a longitudinal investigation of occupational stress. A total of 22 focus groups were conducted with a representative sample of 178 academic and general staff from 15 Australian universities. The groups focused on understanding staff's experience of occupational stress, and perceptions of the sources, consequences and moderators of stress. Both general and academic staff reported a dramatic increase in stress during the previous 5 years. As a group, academic staff reported higher levels of stress than general staff. Five major sources of stress were identified including: insufficient funding and resources; work overload; poor management practice; job insecurity; and insufficient recognition and reward. The majority of groups reported that job-related stress was having a deleterious impact on their professional work and personal welfare. Aspects of the work environment (support from co-workers and management, recognition and achievement, high morale, flexible working conditions), and personal coping strategies (stress management techniques, work/non-work balance, tight role boundaries and lowering standards), were reported to help staff cope with stress. The findings provide a timely insight into the experience of stress within universities.

## 1. Introduction

University teaching has traditionally been regarded as a low stress occupation (Fisher, 1994). Although not highly paid in comparison to professionals in the commercial sector, academics have been envied for their tenure, light work loads, flexibility, 'perks' such as

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*Work & Stress* ISSN 0267-8373 print/ISSN 1464-5335 online © 2001 Taylor & Francis Ltd
http://www.tandf.co.uk/journals/
DOI: 10.1080/0267837011006244

overseas trips for study and/or conference purposes, and the freedom to pursue their own research interests. However, during the past two decades many of these advantages have been eroded. Academic salaries have fallen in real terms in countries such as the USA, the UK, and Australia. Increasing numbers of academic positions are now untenured, workloads have increased and academics are under increasing pressure to attract external funds, and 'publish or perish' (Fisher, 1994).

Research on stress among academic and general staff of universities from across the globe indicates that the phenomenon of occupational stress in universities is alarmingly widespread and increasing (Winefield, 2000). In his review of the literature, Seldin (1987) stated that the academic environment of the 1980s had imposed surprisingly high levels of job stress on academics, and that the level of stress would continue to increase in future decades. In a study on stress in seven New Zealand universities, Boyd, and Wylie (1994) reported that half of the academics in their sample of academics 'often or almost always' found their work to be stressful, and 80% believed that their workload had increased and become more stressful in recent years. In addition, 46% expected further increases in workload in the future. Similarly, The United Kingdom Association of University Teachers study (AUT, 1990) found that 49% of university employees reported that their jobs were stressful and 77% reported an increase in occupational stress over recent years.

Shirley Fisher (1994), author of *Stress in Academic Life,* stated in relation to British universities: 'The demands on academics have risen rapidly over the last ten years ... there has been a steady erosion of job control. All the signs are that this will continue' (Fisher, 1994, p. 61). Dr. Fisher's prophetic ability was borne out by the government cuts to higher education funding in Australia, announced in the 1996 budget. As a direct consequence of these cuts, Australian universities have introduced large-scale restructuring, downsizing (achieved through voluntary and involuntary redundancies and non-renewal of contracts), and changes to governance structures (National Tertiary Education Union {NTEU}, 2000). At the same time there has been an increase in overall student numbers (Department of Employment, Education, Training and Youth Affairs {DEETYA}, 1996, 1999) and student to staff ratios (Australian Vice-Chancellors' Committee {AVCC}, 1999). Winefield (2000) reports that USA, UK and New Zealand universities are also experiencing increasing student to staff ratios and levels of work pressure.

University staff play a vital role in the creation and development of knowledge and innovation, in addition to education and training. It is well documented that high levels of occupational stress, left unchecked and unmanaged, undermine the quality, productivity and creativity of employees' work, in addition to employees' health, well-being, and morale (Calabrese, Kling, and Gold, 1987; Everly, 1990; Kiecolt-Glaser *et al.*, 1985; Matteson, and Ivancevich, 1987; Nowack, 1989; Osipow, and Spokane, 1991; Terry, Tonge, and Callan, 1995). Research has also established that high levels of occupational stress result in substantial costs to organizations and the community through health care expenses, compensation payments, lost productivity and turnover (Cooper, and Cartwright, 1994). It is clearly important that universities manage and protect their staff from increasing levels of stress in order to preserve staff well-being, organizational performance and the intellectual health of the nation. In order to do this, we first need to understand the experience of stress on staff within the university sector.

This study constitutes the first phase of a longitudinal investigation of occupational stress within Australian universities. (The second and third phases of this project will involve distributing the 'University Staff Stress Survey' developed through this preliminary study, to all staff in the 17 participating universities. There will be a 2-year interval between phases 2 and 3). The present study aims to understand and report staff perceptions of:

(1) the level of occupational stress; (2) the causes of occupational stress; (3) the personal and work-related consequences of occupational stress; (4) the moderating factors that help staff to cope with workplace stress; and (5) recommendations for reducing stress within the university sector. To achieve this aim, the study employs a focus group design, drawing on a representative sample of both general and academic university staff.

The term 'general staff' is used in this paper to refer to all non-academic staff employed within the university sector, including staff in academic support, administrative support, library and technical areas.

The following section briefly outlines the conceptualization of stress employed in this paper. It then describes previous research related to each of the study's five aims, concluding with a description of how this study extends previous research.



### 1.1. *Conceptualization of stress*

Lazarus and colleagues conceptualize stress as a complex, multivariate process, resulting from a broad system of variables involving inputs, outputs and the mediating activities of appraisal and coping (Lazarus, 1990; Lazarus, DeLongis, Folkman, and Gruen, 1985). According to this transactional approach, the stress process is dynamic, and constantly changing as a result of the continual interplay between person and environment. To quote Lazarus (1990, p. 4), 'psychological stress, which results from the interplay of system variables and processes, depends on an appraisal by the person that the person-environment relationship at any given moment is one of harm, threat, or challenge'. Stress is regarded as predominantly subjective in nature, rather than an objective phenomenon.

A comprehensive understanding of stress from this perspective involves assessing each important facet of the stress process (Lazarus, 1990). This includes the key environmental and personal *antecedents* (e.g. demands, resources, beliefs), the *intervening* processes (e.g. coping, personality), indicators of the immediate *stress response* (i.e. subjective, behavioural and physiological evidence of emotion), and the longer term *consequences* of stress for individuals and the workplace (e.g. psychological well-being, health and social functioning). The present study aims to capture staff perceptions of each of these facets of stress.

### 1.2. *Impact of stress*

The specific impact of occupational stress within the university sector is less well understood than its well-documented effects on the general workforce. Bowen, and Schuster (1985) identified the negative impact of stress on staff morale, reporting that many of the senior academics they interviewed were angry, embittered and felt devalued and abandoned. Armour, Caffarella, Fuhrmann, and Wergin (1987) further report that stress among academic and general staff of universities significantly affects the quality of both teaching and research, and results in feelings of detachment, low job satisfaction and low job commitment, which may be contagious for students and colleagues. They conclude that the consequences of academic stress may be far more wide ranging than the occasional stress illness.

In a study of New Zealand universities, Boyd, and Wylie (1994) reported that increasing workloads and work-related stress resulted in less academic time spent on research, publishing and professional development, decreasing teaching and research standards, and increasing interpersonal conflict in academic staff relationships. They further report that stress negatively impacted on the physical and emotional health, family relationships and leisure activities of both general and academic staff.

Comparative to the level of research conducted overseas, there has been little research

on stress among academic and general staff within Australian universities. Jarrett, and Winefield (1995) surveyed all staff in a South Australian university, reporting that the overall level of psychological distress was very high, particularly among academic staff, even though their overall level of job satisfaction was moderately high. In a study of a Victorian based university, Sharpley, Reynolds, Acosta, and Dua (1996) report that stress was a major problem for about 25% of staff, with these staff reporting higher levels of anxiety, days absent, doctors' visits, injuries, accidents and illnesses, and lower self-reported physical health. Sharpley (1994, p. 24) concluded that the university sampled 'is showing some real problems in terms of individual and organisational stress-related health'. These findings were almost identical to those reported by Dua (1994) from a New South Wales university.

While it is recognized that some degree of stress is a normal and inevitable part of daily living (Costa, and McCrae, 1992), these studies suggest that a significant proportion of university staff are experiencing maladaptive levels of stress, which is impacting on their individual physical and psychological health, their interpersonal relationships at work, the quality of their work, and workplace morale. Winefield (2000) provides evidence suggesting that academics experience higher levels of stress than do individuals in several other occupations, including engineering employees, prison officers, teachers, transport workers and general university staff.



### 1.3. *Sources of stress among academic and general staff of universities*

Research conducted in the UK, USA, New Zealand and Australia has identified several key factors commonly associated with stress among academic and general staff. These include: work overload, time constraints, lack of promotion opportunities, inadequate recognition, inadequate salary, changing job role, inadequate management and/or participation in management, inadequate resources and funding, and student interaction (Armour *et al.*, 1987; Blix, Cruise, Mitchell, and Blix, 1994; Boyd, and Wylie, 1994; Brown, Bond, Gerndt, and Krager, 1986; Daniels, and Guppy, 1994; Dua, 1994; Gmelch, Wilke, and Lovrich, 1986; Harrison, 1997; Hind, and Doyle, 1996; Jarrett, and Winefield, 1995; Melendez, and de Guzman, 1983; Sharpley *et al.*, 1996; Seldin, 1987).

Other sources of stress, such as high self-expectations (Gmelch *et al.*, 1986; Hind, and Doyle, 1996; Seldin, 1987), job insecurity (Dua, 1994; Melendez, and de Guzman, 1983), lack of community and poor interactions with colleagues (Brown *et al.*, 1986; Melendez, and de Guzman, 1983; Seldin, 1987), inequality in the system (Boyd, and Wylie, 1994), worries over amalgamations (Dua, 1994; Sharpley *et al.*, 1996), and lack of regular performance feedback (Boyd, and Wiley, 1994; Dua, 1994; Sharpley *et al.*, 1996) have been highlighted in only a few studies. This suggests that some sources of stress may be unique to a university or region. These previous studies have typically sampled only a single university, sometimes a single department, and have focused heavily on the stress experienced by academics, with little exploration of stress on general university staff. A comprehensive understanding of the sources of stress requires research involving both general and academic staff sampled across a broad range of universities.

### 1.4. *Moderators of occupational stress*

Stress researchers have identified a number of moderating factors that can reduce or eliminate the negative effects of occupational stress. The most consistently identified moderators of occupational stress include: an individual's coping style (Lazarus, and

Folkman, 1984); emotionality (Costa, and McCrae, 1992); level of control (Spector, 1986); and social support (House, 1981). Johnson, and Hall's (1988) Job Demand-Control-Support model (an extension of Karasek's (1979) Job Demand-Control model) predicts that employees working in jobs characterized by high demand, low control and low social support/isolation, experience the lowest well-being. The buffer hypothesis further suggests that social support and job control moderate the negative impact of demands on well-being. There is, however, continuing debate and mixed empirical support for the role these factors play in the stress process (Dollard, Winefield, Winefield and de Jonge, 2000; Parkes, 1994; Van der Doef, and Maes, 1999).

Few studies have investigated these potential moderators of stress specifically within the university sector. Notable exceptions include Dua (1994) and Penny, Menec, Struthers, Hechter, Schonwetter, and Menges (1997), who report that university staff who perceive high levels of control over their work environment, experience less stress than those who perceive low levels of control. Even less research has investigated *staff perceptions* of the individual and organizational characteristics that buffer stress within universities. Given the subjective nature of stress (Lazarus, 1990), such an understanding may potentially have important implications for the effective management of stress.



### 1.5. *Contribution of this study*

This study extends the current literature on stress among university staff in several ways. First, it investigates the work-related stress experienced by both general and academic staff. Second, the study examines the occupational stress experienced by staff from a wide range of universities. This should enable common factors in the experience of stress to be identified, and separated out from those factors that are peculiar to one or two universities. Third, the study investigates the moderators of stress, in addition to the level, causes and consequences of stress. Finally, the study focuses on understanding staff's experience and perceptions of occupational stress, and seeks staff's opinions on the best way to manage and prevent the negative impact of occupational stress within universities.

Researchers have argued that occupation and industry-specific stress scales are more reliable and valid predictors of stress and its effects than general occupational stress scales (Gmelch *et al.*, 1986). For this reason, Gmelch *et al.* (1986) designed a specific university stress survey for use with US university staff. An important aim of the present study is to gain an up-to-date and comprehensive understanding of the experience of stress for both academic and general university staff, to enable the design of a University Staff Stress Survey that is sensitive and relevant to the Australian context. This survey will then be distributed to all staff in the participating 17 universities during the second and third phases of this project.

This will then enable the second important practical objective of this project to be achieved. That is, to provide government, university management and tertiary education unions with comprehensive, specific, reliable and current information about the experience of occupational stress, for the development of organizational policies designed to identify and minimize occupational stress.

## 2. Method

### 2.1. *Participant selection*

To achieve a sample of participants that was representative of Australian university staff, the researchers calculated the number of general and academic staff participants required

from each occupational level, faculty (academic staff) and job type (general staff), at each university. The university representatives (selected by both the Vice Chancellery and the National Tertiary Education Union) then generated lists of staff who fitted the specified categories, and randomly invited staff from these lists to participate. A total of 178 staff participated, comprising 74 academic and 104 general staff.

### 2.2. *Procedure*

During December 1999, 23 focus groups were conducted across the following 15 universities: James Cook University, Central Queensland University, University of Queensland, Queensland University of Technology, University of Newcastle, University of New England, University of Technology Sydney, University of Canberra, University of Melbourne, Royal Melbourne Institute of Technology, Swinburne University of Technology, University of South Australia, University of Adelaide, Murdoch University, and University of Western Australia. The University of Southern Queensland, Maquarie University and Deakin University were not sampled in this phase of the research, but will participate in subsequent phases.

On average, each focus group had eight participants. Separate focus groups were conducted for general and academic staff at universities employing more than 2000 staff, or having large multiple campuses ($n=8$). Resources only allowed for combined groups of academic and general staff to be conducted at the smaller centralized universities. One university experienced difficulty with obtaining a representative sample for one of its focus groups. Hence this focus group was excluded from the analysis.

### 2.3. *Focus group protocol*

A focus group is a facilitated group discussion used to collect in-depth information on a particular topic from multiple participants. The group discussions focused on exploring staff experiences and perceptions of: (1) the current level; (2) the major causes; (3) the personal and professional consequences; and (4) the moderators, of occupational stress. The focus groups concluded with staff recommendations for reducing occupational stress in the university sector. Table 1 outlines the five broad questions addressed in the focus groups.

The focus group facilitator used a structured process to maximize the quality of information obtained and to ensure that the opinions of each participant were heard and recorded. The process involved first posing a broad open-ended question to the group, seeking each participant's response in turn, then opening the question for group discussion. Broad open-ended questions were used to ensure that the information collected was driven by participants and not overly constrained by the questions asked. A series of probe questions and questions for clarification were used to explore further participants' experiences and perceptions. At the end of each broad question, the facilitator fed back a summary of responses, and asked participants for additions or changes to the summary. This process was repeated for each of the five question areas. Each focus group ran for 90 min and was audio-taped.

### 2.4. *Analyses*

In order to establish a set of factors that are grounded both in theory and practice, the data were coded in several stages. First, focus group summaries were read, and on the basis of this reading, 33 categories of causes, 26 categories of consequences, 28 categories of

Table 1. Focus group protocol.

| |
|---|
| **Experience and level of stress** |
| 1. Describe your experience of occupational stress working at this university. |
| Probes: How would you describe the level of work stress you experience? |
| Has your experience of work stress changed over time? |
| **Causes** |
| 2. What contributes to your stress at work? |
| Probes: Are there any causes of stress that are unique to this university? |
| Are there any causes of stress that are unique to your position or role within the university? |
| **Consequences** |
| 3. How does the stress you experience at work affect you? |
| Probes: How does stress at work affect you professionally? |
| How does stress at work affect you personally? |
| **Moderators** |
| 4. What helps you to manage your stress at work? |
| Probes: What personal strategies do you employ to manage your work stress? In what way do these strategies help you to manage stress? |
| What aspects of your work and work environment help you to manage your work stress? In what way do these aspects help you to manage the stress? |
| **Recommendations for reducing stress** |
| 5. What could practically be done to alleviate unproductive levels of stress at this university? |
| Probes: From your perspective, is it likely that these changes could actually occur? |
| If not, what would prevent these changes from occurring? |
| What could this university's management do to reduce your stress at work? |



moderators, and 8 categories of recommendations, were identified. The identification was carried out by the two leading authors independently, in order to maximize the validity of the categories. Three additional categories identified in the stress literature but not identified through this first reading, were added to the category list.

Second, to examine the extent to which the categories were clearly defined and distinguishable, the second author recoded the focus group transcripts using the above categories. After combining closely related categories, 24 categories of causes, 11 categories of consequences, 12 categories of moderators and five categories of recommendations remained. For ease of description, categories were further aggregated into meta-categories. Table 2 displays these meta-categories, and the percentage of groups that reported each meta-category.

Finally, to assess the inter-rater reliability of coding, the first author coded all focus group summaries using the final set of sub- and meta-categories. The inter-rater agreement was 89% for the sub-categories, and 96% for the meta-categories.

The following section describes each meta-category and the underlying sub-categories that were raised by a minimum of 20% of groups. 'Infrequent issues' reported by only a few groups are also briefly described.

## 3. Results

### 3.1. *Sample descriptives*

Table 3 displays the demographic profile of the focus group sample, in addition to the estimated demographic profile of the population of Australian university staff (based on

Table 2. Percentage of groups reporting each source, moderator, and consequence of occupational stress, and recommendation for alleviating stress. All percentages rounded.

| Response categories | Percentages of groups | | | |
|---|---|---|---|---|
| | Academic staff $N=6$ | General staff $N=8$ | Combined $N=8$ | Mean (all groups) $N=22$ |
| **Sources** | | | | |
| 1. Lack of funding, resources and support services | 100 | 100 | 100 | 100 |
| 2. Task overload | 100 | 88 | 100 | 95 |
| 3. Poor leadership and management | 67 | 100 | 88 | 86 |
| 4. Job insecurity | 33 | 88 | 75 | 68 |
| 5. Lack of promotion, reward and recognition | 67 | 63 | 50 | 59 |
| **Consequences** | | | | |
| *Professional* | | | | |
| 1. Poor job performance | 33 | 63 | 63 | 55 |
| 2. Poor work relationships | 83 | 38 | 50 | 55 |
| 3. Low commitment | 33 | 63 | 50 | 50 |
| 4. Withdrawal from role | 67 | 25 | 50 | 45 |
| *Personal* | | | | |
| 1. Physical health problems | 67 | 88 | 63 | 73 |
| 2. Psychological health problems | 67 | 50 | 88 | 68 |
| 3. Strained personal relationships | 50 | 50 | 38 | 45 |
| 4. Poor quality of life | 50 | 38 | 50 | 45 |
| **Moderators** | | | | |
| *Work environment* | | | | |
| 1. Social support | 50 | 88 | 88 | 77 |
| 2. Recognition and achievement | 0 | 50 | 25 | 27 |
| 3. High morale | 50 | 25 | 13 | 27 |
| 4. Flexible working conditions | 33 | 13 | 25 | 23 |
| *Personal strategies* | | | | |
| 1. Stress management techniques | 33 | 100 | 75 | 73 |
| 2. Work/non-work balance | 50 | 63 | 63 | 59 |
| 3. Tight role boundaries | 50 | 38 | 50 | 45 |
| 4. Lower standards | 66 | 25 | 50 | 45 |
| 5. Personal social support | 33 | 25 | 38 | 31 |
| **Recommendations*** | $n=4$ | $n=7$ | $n=5$ | $n=16$ |
| 1. Increase staff consultation and transparency of management | 50 | 71 | 20 | 50 |
| 2. Increase staff numbers, improve facilities and resources | 75 | 57 | 0 | 44 |
| 3. Improve communication within university | 25 | 43 | 60 | 44 |
| 4. Develop management skills | 25 | 57 | 20 | 38 |
| 5. Develop promotion, recognition and reward processes | 25 | 57 | 20 | 38 |
| 6. Provide greater job security | 25 | 14 | 40 | 25 |
| 7. Review workloads | 50 | 14 | 20 | 25 |

*Only 16 of the 22 groups made recommendations, due to time constraints.

statistics from the DEETYA report *Selected Higher Education Statistics* (1999), and the National Tertiary Education Union Limited Access report (Castleman, Allen, Bastalich and Wright, 1995)). A comparison of these profiles using Chi-square statistics indicated that the focus

Table 3. Demographic profiles of the population of Australian university staff (estimated) and the sample of focus group participants.

| | Estimate for all university staff* | Focus group sample $N=178$ | |
|---|---|---|---|
| | % | % | Participants |
| *Gender* | | | |
| Male | 52 | 41 | 72 |
| Female | 48 | 59 | 106 |
| *Academic staff ($N=74$) occupational level* | | | |
| A | 20 | 18 | 13 |
| B | 25 | 32 | 24 |
| C | 35 | 32 | 24 |
| D/E | 20 | 18 | 13 |
| *General staff ($N=104$) occupational level* | | | |
| 1–3 | 38 | 34 | 35 |
| 4–5 | 34 | 37 | 39 |
| 6–7 | 19 | 18 | 19 |
| 8–10 | 9 | 11 | 11 |

*Based on statistics for full-time, continuing and fixed term staff from the Selected Higher Education Statistics (DEETYA, 1999) and the NTEU Limited Access Report (Castleman, *et al*., 1995).



group sample was representative of general and academic staff at each occupational level. The sample was also representative of general staff across the three broad job categories (i.e. administrative, technical, professional) and of academic staff across eight academic disciplines. However, the sample over-represented female staff, and hence under-represented male staff in the university staff population, $\omega^2(n=178, 1)=9.51$, $p<.01$.

### 3.2. *Experience of occupational stress*

Academic staff reported experiencing moderate to very high levels of work stress. In contrast, general staff reported experiencing a wider range of stress levels, with some general staff reporting very low levels of stress while others reported very high levels. On average, as a group academic staff reported higher levels of stress than general staff.

In relation to changes in stress levels over time, at least one member of each group reported a dramatic increase in the level of workplace stress during the past 2 to 5 years. Several staff described fluctuating levels of stress throughout the year, associated with periods of higher and then lower workloads. However, many staff described a change from fluctuating periods of acute stress, to constant high chronic stress. Chronic stress, without periods of relief, was perceived to be more difficult to manage and to have more severe negative consequences than acute phases of stress.

### 3.3. *Causes of stress*

The five categories of sources of stress identified were: (1) a lack of funding, resources and support services; (2) work overload; (3) poor management practice; (4) insufficient recognition and reward; and (5) job insecurity. Both academic and general staff identified each of these sources of stress. The following section examines each of these sources in more detail, and highlights sub-issues that were specific to academic or general staff.

3.3.1. *Lack of funding, resources and support services*: All groups identified diminishing resources as a primary barrier to carrying out their role efficiently and to an appropriate standard. Almost all groups referred to the decline in staff numbers, reporting that there was no longer adequate staff to perform the work required.

A third of groups reported a lack of resources to deliver the necessary support services to staff and students, such as library and audiovisual services. At some universities valuable services such as learning centres had been closed down. A third of groups also referred to a lack of necessary equipment and lack of funding to maintain existing equipment. In particular, staff referred to a lack of quality teaching aids (e.g. laboratory and classroom equipment), and general workplace tools (e.g. computer hardware and software). There was also a shortage of teaching rooms at some universities. A quarter of groups reported that their IT systems were unreliable, with frequent network and database problems, which resulted in high levels of lost productivity. A lack of competent IT support staff to assist with difficulties further contributed to this stress.

Several academic groups reported a lack of research funding and merit-based distribution of funds, and a lack of funding to attend conferences and travel for research purposes. This resulted in academics feeling demoralized and disillusioned about conducting research, yet aware that they must 'publish or perish'.

3.3.1.1. *Infrequent issues*: Four groups reported a lack of transport and/or parking options at their university as a daily hassle. A few groups from multi-campus universities described the stress of having to teach and travel between campuses. These groups also reported an inequitable distribution of resources across campuses. A few groups reported feeling stress as a consequence of not having the experience, skills or knowledge required to perform their roles, or having to work with and rely on other staff members who do not have the required skills or knowledge.

3.3.2. *Task overload*: Both general and academic staff consistently reported that a major source of stress was the increasing workload and number of responsibilities that they were expected to perform. Staff described the difficulty they experienced in trying to complete any one task properly, due to this task overload. To complete the high volume of work, many staff reported consistently working a high number of unpaid overtime hours, which further contributed to their experience of stress.

Several common factors contributing to the rise in workload were discussed. These included: the decline in staff numbers; an increase in student numbers; the changing nature of students; the introduction of new technologies; and unrealistic deadlines. Staff reported that the decline in staff numbers resulted in a loss of skills and knowledge, and an increased workload for the remaining staff. General staff, particularly in public relations areas, also reported difficulty in taking breaks (e.g. lunch or morning tea) due to their high workload and a lack of substitute staff. The increase in student numbers had resulted in a dramatic increase in the student: staff ratio. Staff described the changing nature of students, referring to an increase in the number of fee paying and international students, a 'poorer standard' of student, and an increasingly consumer-oriented approach to study by students. Staff reported that students now had higher expectations of an academic's availability for consultation and the support services provided by general staff. In addition, staff reported that more time and skills were required to deal with the increasing diversity of students.

A third of all groups reported that the introduction of new technologies (e.g. internet communication, web-based and on-line teaching) and software packages, increased their workload and contributed to stress. Staff commonly referred to a lack of adequate training

and time allocated to developing the required skills and knowledge to use these systems efficiently. Unrealistic deadlines imposed by management and administration further contributed to task overload at specific times of the year. For example, despite a rise in the number of students and a decrease in the number of staff, deadlines for finalizing student grades were reported to have remained the same, placing enormous pressure on academics.

Academic staff reported difficulty in meeting their multiple research, teaching and administrative responsibilities, as each component had become more demanding. With regard to research, the requirement for staff to become 'entrepreneurial' in their research and consulting activities to generate income, had substantially increased their workload. With regard to teaching, the increasing number of courses that staff are expected to design and teach, coupled with the introduction of new teaching modalities (e.g. web-based), rapid continuous advances in research knowledge, and in some universities the introduction of year round teaching, had substantially increased this workload. Academics also described an increase in the administrative component of their role.

One-quarter of groups reported that a contributing factor to task overload was an inequitable division of workloads within departments. This inequity was typically due to either poor performance by some staff of the responsibilities delegated to them (i.e. 'not pulling their weight'), or an inequitable delegation of responsibilities by department management.

3.3.2.1. *Infrequent issues*: A few groups reported stress arising from information overload due to an increasing amount of electronic mail, coupled with the expectation to respond immediately. Stress associated with having managerial responsibility over staff was also reported.

3.3.3. *Poor leadership and management*: Both academic and general staff groups reported a number of issues relating to the quality of management at both the departmental and senior levels. These issues included a lack of consultation and staff input, a lack of management transparency, the level and management of organizational change, and poor general management skills.

A major source of stress reported by all groups was the lack, or limited nature, of staff consultation by management. Staff expressed their resentment at the lack of opportunity to contribute to important decisions that would impact upon them. In cases where consultation had taken place, staff frequently believed that it was not a genuine endeavour on the part of management, as management remained committed to its existing agenda and failed to consider the feedback from staff in decision making. Such behaviour has led staff to feel cynical about the consultation process.

Half of the groups expressed the view that decisions made by management were based too heavily on corporate and financial considerations, with little consideration of teaching, research and staff interests, and needs. Such decision-making has contributed to staff's distrust of senior management. As a consequence of their limited inclusion in the decision-making process, staff reported feeling that they no longer had any autonomy or control over their role, and felt 'powerless' and 'helpless'. Some staff further reported that they had considerably less 'good will' towards management now than in the past, and no longer saw the university as a 'caring employer'.

In addition to the lack of consultation, half of the groups reported a lack of transparency surrounding management policies and decisions, which further contributed to their experience of stress and distrust towards management. In particular, the processes used by

management to make promotion and performance appraisal decisions were reported to be unclear.

Staff expressed frustration at the extent of organizational change (e.g. restructuring, mergers and technological changes) during recent years and the poor management of this change. Staff perceived a lack of direction and vision in the planning of change, a lack of consideration of its impact on staff, and poor communication of the rationale for change (i.e. the intended benefits) and 'forewarning' of its implementation. Some staff had experienced many consecutive 'rounds of change' and felt that there was little opportunity to consolidate one change process, and gain the intended benefits, before the next was implemented. Organizational change was commonly perceived to waste staff's time and to reduce the quality of their work.

A third of all groups reported that managers were not adequately trained in leadership, managerial, human resources and communication skills, and believed that managers were selected on the basis of scholarly aptitude, as opposed to their ability to manage people and budgets. In particular, staff reported a lack of consistent direction and vision from university leaders, and a lack of demonstrated commitment from management to achieving the espoused goals of the university. These groups described management's people skills and communication with staff as ineffective. These perceptions of poor management contributed to an attitude of distrust towards management.

3.3.3.1. *Infrequent issues*: A few groups described feeling stressed and demoralized by having unrealistic goals set by university management, without the resources or funding to achieve the goals. A few groups also reported stress due to poor timetabling, describing having to run from one lecture to the next. The reliance on e-mail as a means of communication between management and staff rather than staff meetings, was also perceived as a source of stress and frustration by a few staff who believed that this limited staff discussion, consultation and input into decision making.

3.3.4. *Job insecurity*: Two-thirds of the groups described feeling anxious and stressed about the security of their jobs as a consequence of redundancy cycles. The management of the redundancy process was described as poor and often resulted in the ill-treatment of redundant staff (often colleagues), which further contributed to a climate of stress within the workplace. General staff in particular described the difficulty and stress associated with working on a contractual basis, reporting that they frequently did not know if their contract would be renewed until the last moment.

One-quarter of groups described the negative impact that high levels of job insecurity had on their work environment. Academic staff reported that job insecurity contributed to a cut throat 'look after number one' competitive environment amongst colleagues, which further contributed to academic stress. Several academics described the limited options for finding work outside the university system due to the extent of their specialization. Staff also described feeling that they could not talk honestly about problems in their workplace, say no to unmanageable workloads, or take leave at the close of a contract, for fear of losing their jobs. Several employees reported not having a break from their job over long periods of time and being careful about what they said and did, as a consequence.

3.3.5. *Lack of promotion, reward and recognition*: Just over one-half of the groups identified the limited opportunities for promotion and high level of competition within their workplace, as a source of stress. The process of applying for promotion was also perceived to be stressful by several staff. Many staff referred to a lack of recognition and appreciation of staff achievements and contributions within their workplace. Academics in particular

reported feeling undervalued and underpaid for the nature of the work performed and the hours worked.

Several groups reported inequity in the reward system, reporting that the system rewards research over teaching excellence, academic over general staff, and in some areas male over female staff.

3.3.5.1. *Infrequent issues*: A few groups reported that performance evaluation processes were very stressful. A few academics reported that part of this stress is associated with the poor design of the evaluation system, claiming that student evaluations are based on the entertainment value and ease of the course. Some staff reported that performance evaluation, when designed well, helped to alleviate stress by increasing communication, planning, and role clarity.



3.4. *Consequences of occupational stress*

3.4.1. *Professional consequences*: Staff reported that occupational stress impacted on them both professionally and personally. Professionally, staff reported that the current levels of occupational stress negatively impacted on their job performance, interpersonal work relations, their commitment to the university, and their extra-role performance. Each of these are described in more detail below.

With regard to job performance, just over one-half of the groups, particularly the general staff, reported difficulty in organizing their work efficiently as a consequence of high levels of stress. Staff reported that they constantly felt that they were not able to deliver the quality of work personally and professionally expected of them, which impacted negatively on their self-esteem. Delivering poorly on the job and having to lower one's work standards became an additional source of stress for many staff, forming a destructive cycle of increasing stress and poor performance. Academics reported that they no longer had time to develop innovative or creative work.

Stress was reported by one-half of the groups to contribute to strained relationships and interpersonal conflict in the workplace. Staff described not having time to talk to colleagues and provide support and assistance to them. Academic staff in particular reported a loss of collegiality, collaboration and support in their workplace.

Another common consequence of stress, particularly for general staff, was withdrawal from work in the form of absenteeism, leave due to stress, reduced working hours (e.g. dropping to a part-time load), exploring job opportunities outside the university, and resignation. Academic staff reported the impact of stress on their extra-role performance, describing establishing tighter boundaries around their role. For example, staff reported 'closing down' from their role both intellectually, and in terms of their effort and commitment. Staff further described learning to say 'no' to extra-role requests and tasks (e.g. being a committee member, commenting on a publication submission for a colleague), making conscious decisions to cut down overtime hours, and refusing to work at the weekends.

In addition to reporting the negative professional consequences of stress, several staff reported that stress sometimes had a positive effect on their efficiency and performance at work.

3.4.2. *Personal consequences*: At a personal level, staff reported that the current levels of occupational stress resulted in a range of physical and psychological health problems, and strained family and personal relations. Three-quarters of the groups reported suffering physical health effects as a consequence of work-related stress. These health symptoms included: headaches and migraines; sleep disorders; back and neck pain; constant muscle

tension; weight loss or gain; physical fatigue; lowered immunity to colds and viruses; hypertension; heart problems; and skin disorders (e.g. itches, psoriasis, rashes). A few staff reported increased work-related injuries during stressful periods, and four academic staff reported taking heart medication due to work-related stress.

Two-thirds of the groups reported that stress impacted on them psychologically, describing feelings of anxiety, depression, burnout, anger, irritability, helplessness, and being overwhelmed, in addition to forgetfulness, an inability to switch off, and frustration towards oneself, other staff, and/or management. Several staff indicated that they were seeking professional counselling or psychological services to help them to deal with their stress, and a few staff reported relying on alcohol or medication for help.

Half the groups reported that their stress impacted on the quality of their family life, describing often having to forgo time with their family due to the amount of overtime required to fulfil their work responsibilities. They also described poorer communication and increased conflict with family and friends when stressed. Several staff reported being constantly exhausted or feeling anti-social due to the stress of their work, which impacted on their ability to fulfil personal goals, to develop and maintain personal relationships, and on their general quality of life.



### 3.5. *Moderators of occupational stress*

3.5.1. *Aspects of the work environment*: Staff reported that support from co-workers and management, recognition and achievement, high morale, and flexible working conditions, helped them to cope with work-related stress.

Three-quarters of staff groups referred to the value of drawing on support in the workplace as a way of dealing with stress. This included talking to co-workers about work and 'having a whinge' and a laugh together, sharing one's workload with co-workers, being able to ask for help, and being able to rely on support staff and support services (e.g. a help desk for students). Many staff emphasized the importance of support from their departmental management and/or senior management in moderating their stress. Some groups, however, reported that such support networks with colleagues were being eroded due to the increasing competitiveness and lack of time.

Predominantly general staff described the stress-moderating benefits of achieving in their work, observing others in their workplace achieve, seeing students (particularly post-graduates) develop, and celebrating such successes. Receiving recognition from management, colleagues and students was also identified as an important stress buffer. In addition, several groups suggested that a high level of morale in the workplace minimized the effects of stress.

Predominantly academic staff reported that flexible working conditions helped them to cope with stress. This included being able to work from home one day a week, not having to 'clock in and out', working part-time, and taking study leave. Attending conferences was also mentioned as a stress moderator and morale builder by a few staff, although resources for conference attendance were reported to have diminished.

3.5.1.1. *Infrequent issues*: A few groups reported that support and representation of staff interests by the union helped them to cope with stress, particularly during enterprise bargaining negotiations. Attending training and development programs was also reported to moderate stress by a few groups.

3.5.2. *Personal strategies*: Personal strategies for coping with work-related stress included: practising stress management techniques, maintaining a work/non-work balance, estab-

lishing tight role boundaries, lowering standards and self-expectations, and relying on personal sources of social support. Each are described in more detail below.

Three-quarters of all of the groups, predominantly general staff, reported practising stress management techniques, such as learning to recognize and understand stress, managing expectations, planning and prioritizing, taking regular breaks from the work station, regularly exercising, and seeking alternative therapies for stress relief (e.g. yoga, massage). Some staff reported learning these techniques through stress management workshops conducted at their university.

Maintaining a balance between work and non-work included making a clear distinction between work and personal life (e.g. leaving work on time, not taking work home), switching off from work, and focusing on non-work-related interests (e.g. gardening and sport). However several staff reported difficulty in switching off from work, even at weekends, describing feelings of anxiety and guilt, and believing that it would limit their chances of promotion if they did not work at weekends.

In addition to being a consequence of high levels of stress, establishing tight boundaries around one's role in the form of avoiding all forms of 'voluntary' contribution (e.g. leaving committees) and withdrawing from all non-essential staff and student contact, was reported as a means of managing stress. Predominantly academics reported managing their stress by lowering their self-expectations and work standards.

A third of groups reported relying on personal sources of social support, such as family and friends, to help them to cope with work-related stress.

### 3.6. *Recommendations for reducing stress*

Each of the following seven recommendations for reducing stress among both academic and general staff were made by at least one-quarter of groups.

3.6.1. *Increase staff consultation and transparency of management*: Half the groups highlighted the need for open and honest consultation of staff by management, particularly in regard to proposed organizational changes. As one participant put it, 'management needs to give staff a voice'. It was recommended that management inform staff about the reasons, processes and anticipated benefits of organizational change in a timely manner, and consider the realistic impact of changes on staff. Staff further recommended that organizational change processes be designed with the clear aim of facilitating teaching and research. The need for greater transparency of decision making and general openness of management was heavily emphasized. A greater management presence and accessibility to staff was also suggested.

3.6.2. *Increase staff numbers and improve facilities and resources*: Increasing the number of staff was recommended as the most effective way to address the high workload problem. Upgrading teaching facilities, providing greater funding for research, increasing IT and administrative support services, increasing professional development opportunities, and developing staff orientation processes, were also recommended.

3.6.3. *Improve communication*: Staff recommended developing and improving two-way communication processes between departments and various units of the universities, as well as between management and staff.

3.6.4. *Develop management skills*: One-third of all groups recommended formal training in leadership skills, human resources management and communication skills for staff (particu-

larly academic) who rise to management positions, and for staff currently in these positions. Staff emphasized that management needs to provide a stronger direction and vision at both the departmental and university level, and needs to demonstrate their own commitment to achieving goals set. Staff recommended making management more accountable by introducing regular evaluation of management driven changes and initiatives, and communicating the outcome of such evaluations to staff. Staff also emphasized the need for management to acquire a greater understanding of the work performed by staff, improve their people management skills and to learn to build trust and respect.

3.6.5. *Develop promotion, recognition and reward processes*: Just over one-third of all groups, particularly the general staff, recommended that career paths, reward structures and mentoring schemes be designed for all university employees. Both staff groups recommended that adequate pay levels be adopted. In addition, staff recommended improving the way in which staff and team achievements are recognized and rewarded.

3.6.6. *Provide greater job security*: One-fifth of the groups recommended that the university develop strategies and processes to provide staff with greater job security.

3.6.7. *Review workloads*: One-fifth of groups recommended that management develop processes to review workloads, with the aim of making them more realistic and equitable. However, some academic staff raised concerns about the difficulty of accurately assessing academic workloads.

## 4. Discussion

This paper reports on the first phase of a longitudinal investigation of occupational stress across a broad range of Australian universities. The aim of this phase was to identify and describe staff experiences and perceptions of occupational stress, and their perceptions of its causes, moderators and consequences.

The results of the focus group discussions indicate a high degree of overlap between the causes, consequences and moderators of occupational stress across the 15 universities sampled, despite the wide variation in their history, geographic location, and specializations. It is clear that this representative sample of staff perceived a dramatic increase in the level of occupational stress experienced during the previous 5 years, a time marked by major funding cuts to the tertiary education sector, large-scale organizational change and significant redundancies.

With few exceptions, academic staff reported high levels of occupational stress, with a significant proportion reporting debilitating levels of stress. Overall, general staff reported lower levels of stress than academic staff. The findings of the widespread prevalence and intensity of work-related stress amongst university staff, particularly academic staff, is in accordance with other recent studies of stress in universities (Boyd, and Wylie, 1994; Dua, 1994; Harrison, 1997; Jarrett, and Winefield, 1995; Sharpley, 1994).

This research identified five major sources of occupational stress that were common to the universities, and among both general and academic staff. These included: (1) a lack of funding, resources and support services; (2) task overload; (3) poor leadership and management; (4) a lack of promotion, recognition and reward; and (5) job insecurity. Underlying these five sources, staff are describing a story of high work demand, and eroding levels of individual control and workplace support. The Job Demand-Control-Support model (Johnson, and Hall, 1988) predicts that these job characteristics result in the most

negative outcomes for staff well-being, a prediction supported by the high levels of stress reported by university staff.

These factors encompass the majority of causes of stress in universities identified in previous research (Blix *et al*., 1994; Boyd, and Wylie, 1994; Gmelch *et al*., 1986; Sharpley, 1994). However the current study also identified 'job insecurity' as a major source of stress. This can be explained by the downsizing and cycles of redundancies implemented since 1996 in many of the universities sampled.

Interestingly, four of the causes identified in this study (including job insecurity) overlap with the major causes of stress identified in a national study of Australian workers from a range of occupational groups and industries (ACTU, 1998). This suggests that at a broad level, universities are experiencing similar sources of stress to other organizations and industries. The notable unique sources of stress for university staff were a lack of recognition and reward, and clear promotion paths for general staff.

The findings highlight the significant impact that occupational stress was having on the university staff, both at a professional and a personal level. Staff reported that their current level of stress affected their ability to perform their work efficiently and to a high standard, and impacted on the level of collegiality and commitment in the workplace. Staff further reported not being able to fulfil their roles and responsibilities adequately and 'closing down' in the effort they put into their roles. At a personal level, the extent to which occupational stress was reported to be affecting the physical and psychological health of this random and representative selection of staff, is alarming. Occupational stress was clearly perceived to be impacting negatively on the quality of their family and personal lives. Although based on staff perceptions, these findings are consistent with previous work examining the consequences of stress among university staff (Boyd, and Wylie, 1994; Jarrett, and Winefield, 1995; Sharpley, 1994).

A unique feature of this study was the examination of staff perceptions of factors that helped them to manage and to cope with stress. The moderators identified by staff emphasize social support, professional recognition, workplace morale, flexible working conditions, active practice of stress management techniques, and establishing greater control and tighter boundaries around work. It is noteworthy that no academic groups reported professional recognition as a moderator of stress, and only one-third of academic groups, in comparison to all general staff groups, reported managing their stress through stress management techniques such as taking regular breaks. In contrast, two-thirds of academic groups, compared to only a quarter of general staff groups, reported lowering their standards and self-expectations to moderate their stress. Given the higher level of stress reported by academic than general staff in both this and previous studies (e.g. Jarrett and Winefield, 1995), further research exploring how academic and general staff both experience and deal with occupational stress is warranted. The intense personal investment and ownership typical of academic work may pose particular barriers and difficulties to academics when it comes to managing their stress.

This study suggests that both general and academic staff may share the same broad set of causes, consequences and moderators of occupational stress, despite differences in their job roles. The study also provides preliminary evidence that the prevalence of certain causes, consequences and moderators may differ for general and academic staff. A limitation of this first phase of the project is the inability to report accurately the actual number and type of staff who made comments in each category. Rather, only the number of academic and general groups reporting each category is provided. The use of combined academic and general groups further limits the ability to identify factors that relate solely to academic or general staff. The second and third phases of this project will enable rigorous analysis

of the similarities and differences in the experience of occupational stress across job types, occupational levels, gender and age.

We caution the reader not to infer the importance of a factor in the stress response, on the basis of the number of focus groups reporting the factor. There are two reasons for this. First, the assumption that frequency of reporting implies importance of the factor needs to be tested. Second, previous research into occupational stress suggests that there are other important factors that significantly contribute to, and moderate, occupational stress, which were not commonly identified by staff in the focus groups. For example, personality factors, such as neuroticism and extraversion have been shown to contribute to and moderate an individual's experience of occupational stress (Cassar, and Tattersall, 1998; Hart, and Wearing, 1995). Similarly, an individual's coping style has been shown to moderate stress (Parkes, 1990, 1994). The subsequent questionnaire-based phases of this research will incorporate these additional factors identified in the literature, to enable a comprehensive examination of the causes of stress within universities, and their relative importance.

Consistent with the conceptualization of stress as a complex, dynamic system of variables (Lazarus, 1990), there was some overlap in the factors that participants identified as causes, consequences and moderators of occupational stress. For example, poor quality work and lower standards were identified as consequences of stress, which in time became additional sources of stress. Similarly, the absence of morale and support in the workplace were identified as consequences of stress, and the presence of morale and support as important moderators of stress. These examples illustrate the compounding downward spiral that is characteristic of high levels of occupational stress, as the consequences of stress compound existing sources of stress and erode mechanisms that buffer stress.

It is evident that participants clearly placed much of the responsibility for increasing levels of occupational stress on university management. Staff commonly expressed anger, cynicism and distrust towards senior management, and in some cases middle management (e.g. School, Department or Unit management). The most common recommendations for reducing staff stress emphasized the need for management to increase staff consultation and the transparency of management decision making, improve university intra-communication processes, develop stronger leadership and management ability, improve promotion, recognition and reward processes, and source more funding to increase staff numbers and improve facilities.

In conclusion, these qualitative results highlight the pertinent need to address the issue of occupational stress within universities. Reports by staff clearly suggest that occupational stress is having a debilitating impact on the personal and professional welfare of a significant proportion of university staff, and in their opinion, is clearly affecting the quality of education and research produced in the universities. The second quantitative phase of this project will provide a prime opportunity for government, university management, and tertiary education unions to gain a detailed understanding of the causes of occupational stress. In addition, the two-year period between the second and third phases of this project provides these parties with the opportunity to design and implement strategies to reduce occupational stress, and then to evaluate the effectiveness of such strategies through comparisons of staff stress levels pre- and post-intervention.

## Acknowledgements

This research was supported by grants C79943002 and C79943021 from the Australian Research Council, funding and in-kind support from the (Australian) National Tertiary

Education Union, and contributions from the Vice Chancellors of 19 Australian Universities.

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