Spirituality at Work: An Employee Stress Intervention for Academics?

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Abstract

This study uses a spiritual appraisal model of stress and health to investigate the moderating effects of spirituality at work on job stress, wellbeing, and ill-being amongst Australian academics (Gall, Charbonneau, Clarke, Grant, Joseph & Shouldice 2005). Academic staff members employed in Australian universities completed a self-report questionnaire containing quantitative measures of spirituality at work (individual, work-unit and organisation-wide spirituality), wellbeing, ill-being, job threat stress and job pressure stress (N = 139). Bivariate correlation analyses demonstrated that spirituality at work, wellbeing, ill-being and the job stress variables correlated moderately with each other. However, at the multivariate level, spirituality at work did not moderate the influence of job stress on either wellbeing or ill-being. Instead, job threat stress significantly predicted decreased wellbeing and increased ill-being. It was concluded that further exploration of spirituality at work is required to better understand potential benefits for organisations.

Keywords: spirituality at work (SAW); job stress; academics; wellbeing; ill-being

Introduction

Over the last fifteen years, interest in the area of spirituality in the workplace increased substantially in commercial media, academic research, mainstream newspapers, magazine articles, conferences and workshops (Biberman 2003; Harrington, Preziosi & Gooden 2002; Milliman, Czaplewski & Ferguson 2003). As such, many studies discussing the conception and definition of spirituality have been published (e.g., Pava 2007; Webster 2004). Increased research on spirituality at work (SAW) has occurred internationally in predominantly Western countries, with many studies conducted in the United States of America (e.g., Duchon & Plowman 2005), and the United Kingdom (e.g., Ackers & Preston 1997); but, fewer in Australia (e.g., Becker 2002).

However, there is a lack of consensus in the definition of spirituality at work (SAW), and little agreement about appropriate models or measures describing SAW (Gall et al. 2005; Giacalone & Jurkiewicz 2003; Kinjerski & Skrypnek 2004). There is also debate in the literature about whether spirituality is a separate construct to religion. Some authors have proposed that spirituality consists of religious and spiritual components (see Fabricatore, Handal & Fenzel 2000; Paloutzian & Ellison 1982; Seidlitz, Abernethy, Duberstein, Evinger, Chang & Lewis 2002). Yet other researchers use the term spirituality and religion interchangeably (see Butts 1999; Kinjerski & Skrypnek 2004).

A third group of authors, view spirituality and religion as distinct constructs (see Duchon & Plowman 2005; Duffy 2006; Marques, Dhiman & King 2005). Given this contestation of definitions, a wide range of measures have been developed with some including religious aspects of spirituality (e.g., Fabricatore et al. 2000; Paloutzian & Ellison 1982; Seidlitz et al. 2002), and others ignoring this domain (see, Hatch, Burg, Naberhaus & Hellmich 1998). Another methodological problem with SAW research entails the use of individual spirituality scales to measure spirituality in an organisational context (Sass 2000).

A large volume of previous research investigated individual spirituality, life stress and health. Individual spirituality has repeatedly been found to be a predictor of better health and lower levels of stress, particularly when spirituality is defined in non-religious terms (see Calicchia & Graham 2006; Lustyk, Beam, Miller & Olson 2006). Furthermore, studies have found that individual spirituality may be a moderating influence on the relationship between stress; and wellbeing and ill-being (e.g., Elam 2000; Hong 2008; Youngmee & Seidlitz 2002). However, to date, little research has been conducted on SAW and job stress, employee health (e.g., Becker 2002) or employee outcomes (e.g., Ashmos & Duchon 2000; Becker 2002; Clark, Leedy, McDonald, Muller, Lamb, Mendez, Kim & Schonwetter 2007; Duchon & Plowman 2005; Kinjerski & Skrypnek 2006; Milliman et al. 2003). These few studies have predominantly sampled university students, corporate workplaces, high school teachers, hospital staff and other occupations (Calicchia & Graham 2006; Elam 2000; Goddard, O'Brien & Goddard 2006; Hayes 2007; Hong 2008; Schwarzer & Hallum 2008; Wong 2007; Youngmee & Seidlitz 2002). There is a dearth of research investigating spirituality among tertiary educators (see Astin & Astin 1999).

The overall aim of this study was to investigate the influence of non-religious SAW on wellbeing, ill-being, job threat stress and job pressure stress of academic staff at Australian universities. Additionally, it was an aim to utilise a reliable and valid measure of spirituality at work (not individual spirituality). The research draws on both investigations of individual spirituality, life stress and health (e.g., Elam 2000; Hong 2008; Youngmee & Seidlitz 2002), and a spiritual appraisal model of stress and health (Gall et al. 2005). The primary objective of this study is to test whether SAW (individual, work-unit and organisation-wide) would buffer the effect of job stress on wellbeing and ill-being. SAW, job stress and health are firstly be defined and, then related to previous research on both the general population and academics more specifically.

Individual Spirituality and Spirituality at Work

Firstly, perspectives about whether spirituality is conceptually the same as religion are addressed. Some authors suggest that the two constructs are related (see Fabricatore et al. 2000; Seidlitz et al. 2002) with others claiming that spirituality and religion are ultimately not the same (see Dent, Higgins & Wharff 2005; Duchon & Plowman 2005; Duffy 2006; Marques et al. 2005). Furthermore the belief that they are not necessarily the same has gained more credence recently (Cascio 1999; Rothman 2009). Evidence, suggests that individuals can be spiritual without being religious (see Marler & Hadaway 2002; Peterman, Fitchett, Brady, Hernandez & Cella 2002).

Spirituality is considered by Mitroff and Denton (1999a) as nondenominational and non-prejudiced: it is embodied by all faiths, races, genders, sexual orientations and abilities or disabilities. Conversely, religion can be described as a structured doctrine based on a particular faith, which is formal, organised and highly structured, rigid and uncompromising (Mitroff & Denton 1999a). Authors frequently contend that incorporating religion into the workplace is inappropriate except, or, when accommodating religious diversity (see Cash & Gray 2000), and when it does not interfere with normal organisational function (Laabs 1995). Spirituality, conversely, is largely viewed as being a relevant issue to be incorporated into organisations (see Kinjerski & Skrypnek 2004; Milliman et al. 2003; Mitroff & Denton 1999b).

Mitroff and Denton (1999b) describe individual spirituality as finding the sacredness in the ordinariness of everyday life, feeling interconnected with everything, having inner peace and calm, having an infinite source of faith and willpower (Mitroff & Denton 1999b). SAW therefore is defined as the degree to which individual spirituality is expressed in the behaviours, policies, values and principles of an organisation (Dehler & Welsh 1994). Ashmos and Duchon (2000) describe SAW as involving three levels, individual, work-unit and organisation-wide. The individual level describes how much an employee can obtain a satisfying internal and external life by finding individual meaning and purpose through their work. The work-unit dimension entails how much employees have a sense of connection and community with their colleagues; as well as assessing the extent to which those colleagues are caring and encouraging.

Organisation-wide SAW entails the extent to which an employee perceives of themselves as having a good relationship with their organisation, and how well they consider that their own values and goals align with their organisation's.

Spirituality, Stress, Wellbeing and Ill-Being Research

Stress is defined as an event or situation that is perceived as threatening, demanding or challenging (Hardie, Kashima & Pridmore 2005). Lazarus and Folkman (1984) define stress as any relationship between a person and their environment which is appraised as 'taxing and endangers his or her wellbeing'. Theories of stress and health state that 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).

In linking stress to 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 is the process whereby an individual perceives something as stressful, neutral or positive. Secondary appraisal involves the individual evaluating the stressful situation and 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. An important aspect of Lazarus and Folkman's model is that perception of whether the stressor is negative, positive or neutral, is determined largely on the skills, needs and values of the particular individual.

Gall et al. (2005) propose a conceptual model of the role spirituality plays in stress and health, based on Lazarus and Folkman's original (1984) transactional model. Gall et al. (2005) contend that spirituality can be used at the personal level (e.g., beliefs), primary and secondary appraisal level (e.g., spiritual appraisal), coping behaviour level (e.g., self-reflection), connection level (e.g., interconnectedness), and meaning-making (e.g., spiritual reappraisal) to cope with stressors as represented in Figure I below.

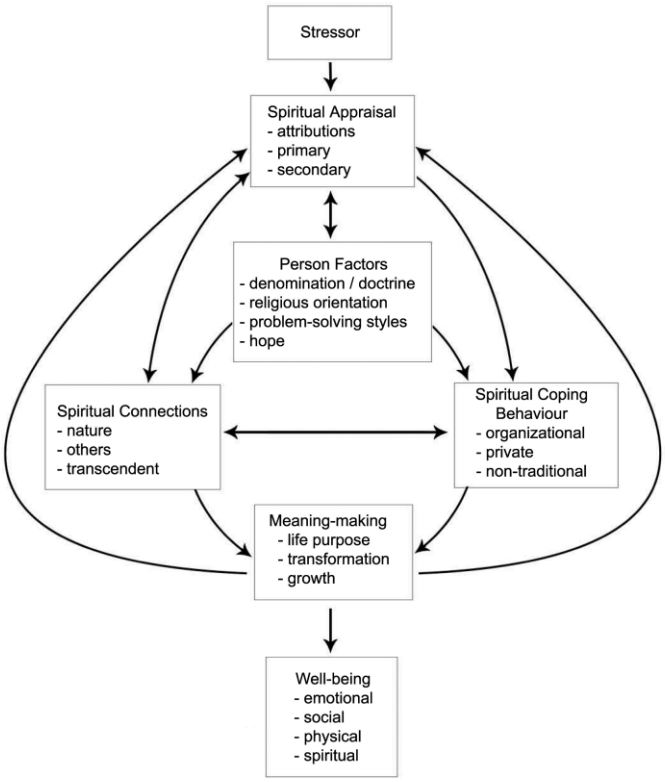

Figure I. The Spiritual Framework of Coping (Source: Gall et al. 2005, p. 89)

This figure demonstrates the complex relationship between stress, spiritual appraisal, and wellbeing. Wellbeing is determined by a person's ability to utilise spiritual appraisal of stressors, spiritual coping and connections; and, meaning making to potentially mediate or moderate the detrimental influence of stress on wellbeing.

The model's components are comparable to Ashmos and Duchon's (2000) spirituality at work dimensions, for example, individual spirituality at work is similar to meaning making and personal factors (e.g., beliefs). Work-unit spirituality and organisation-wide spirituality at work can be likened to spiritual connections and organised spiritual coping behaviour (e.g., social support and community service).

Some researchers have proposed a moderating model between individual spirituality (or religious spirituality), stress and wellbeing (see Calicchia & Graham 2006). Most authors argued for spirituality (or religious spirituality) moderation models based on the notion of spiritual appraisal and coping. For example, Calicchia and Graham (2006) reasoned that moderation analyses were appropriate based on the preceding research which demonstrated that the influence of stress on wellbeing was effected by internal person factors (such as intelligence, previous experience and coping strategies) and external factors (such as social support and occupation). Calicchia and Graham also cited Gall et al.'s (2005) spiritual appraisal model as reason to investigate moderation models. Their overall results suggested that spirituality had some ability in buffering stresses.

Youngmee and Seidlitz (2002) investigated whether spirituality moderated the effect of stress on wellbeing and ill-being (positive and negative affect and physical adjustment) amongst college students. The authors demonstrated that spirituality buffered the adverse influence of stress on wellbeing and ill-being. Ellison (1991) investigated the role of religious spirituality in buffering the harmful effects of traumatic stress on wellbeing. This was based on a stress-buffering model of wellbeing, in which personal religious or spiritual involvement was proposed to help prevent the harmful impact of stress on wellbeing. The negative influence would be buffered by positive reappraisal of potentially stressful situations, making the stressor appear less stressful (Ellison 1991; Gall et al. 2005; Hebert et al. 2006). Alternatively, buffering would occur by helping an individual believe he or she had the capabilities to cope successfully (Ellison 1991; Gall et al. 2005; Hebert et al. 2006). Ellison ascertained that spiritual belief systems were directly related to wellbeing, while church attendance and organised religious factors led to wellbeing indirectly by strengthening religious beliefs. It was shown that religious beliefs (but not divine interaction) buffered the negative effects of trauma on wellbeing.

Other research demonstrates that the moderating effects of individual spirituality on stress only influence some aspects of health. For example, Elam (2000) studied the relationship between individual spirituality, life stress and emotional wellbeing among undergraduate college psychology students. Spirituality was a moderating influence in the relationship between daily stress and depression, positive affect and life satisfaction, but not for anxiety or negative affect. Similarly, Hong (2008) examined the moderating effects of self-transcendence meaning on psychological wellbeing of college students under academic stress. Self-transcendence meaning of life was verified to moderate the relationship between psychological wellbeing (mental-health problems, depression and self-esteem effects) and academic stress, but not sense of adequacy or anxiety.

Ellison, Boardman, Williams and Jackson (2001) investigated moderating links between multiple dimensions of religious involvement and psychological distress and wellbeing. The researchers reported no stress-buffering effects involving frequency of prayer or frequency of church attendance. However, a strong belief in eternal life buffered the harmful effects of chronic health problems and financial problems on psychological wellbeing, but not on distress. A strong belief in eternal life also reduced the negative impact of work-related problems on psychological distress, but not on wellbeing. There was no evidence to suggest that religious involvement buffered the effects of multiple stressors on distress or wellbeing.

Job Stress, Wellbeing, Ill-Being and Spirituality in Universities

The harmful influence of stress on health has been widely acknowledged (e.g., Elfering, Grebner, Semmer, Kaiser-Freiburghaus, Ponte & Witschi 2005; Jamal 2005; Shields 2006). This has been evidenced across a variety of occupation including dentists (see Palliser, Firth, Feyer & Paulin 2005), nurses (see Siying, Wei, Zhiming, Mianzhen & Yajia 2007) counselling agency employees (see Elfering et al. 2005) and general working population (see Shields 2006). Much research demonstrating the detrimental influence of job stress on health was conducted on university students (e.g., Calicchia & Graham 2006; Elam 2000; Hong 2008; Youngmee & Seidlitz 2002) or on professionals such as teachers (e.g., Goddard et al. 2006; Schwarzer & Hallum 2008) and managers (e.g., Hayes 2007; Wong 2007), but little has been conducted on higher education academic staff. Job stress has been widely linked with adverse physical, psychological and psychosomatic effects on employee personal and physical wellbeing, including high blood pressure, migraine, recurrent virus infections and stomach ulcers (see Kinman & Jones 2003).

High levels of job stress can lead to organisational problems, such as low productivity, increased absenteeism and turnover, as well as individual employee problems (Jamal 2005; Mostert, Rothmann, Mostert & Nell 2008). Job stress has also been found to relate to burnout, reduced job satisfaction, and lack of organisational commitment (Goddard et al. 2006; Jamal 2005).

Evidence suggests that work-related stress and demands on academics has significantly increased in recent years worldwide, and many believe that it will continue to intensify in the future (see Houston, Meyer & Paewai 2006; Kinman & Jones 2008; Mostert et al. 2008). 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 (Jacobs & Winslow 2004; Tytherleigh, Webb, Cooper & Ricketts 2005; Winefield, Gillespie, Stough, Dua, Hapuarachchi & Boyd 2003).

Tertiary educators are trying to find ways to make their lives and workplaces complete (Astin & Astin 1999). Houston et al. (2006) showed that academics were more satisfied with intrinsic rewards (such as flexibility, responsibility and variety) than extrinsic rewards (such as salary and chances for advancement). Also, a shared sense of community (aspect of SAW) seem important for academics in coping with work stress. For example, Schuler (1982) argued that employees who have socially supportive relationships are more capable of dealing with stress. This may be due to the feelings of acceptance social support fosters, and the awareness that there are colleagues available to help if needed.

Academia traditionally discourages integration of personal life (let alone spirituality) into work-life, and encourages this segregated view of work in their students (Astin & Astin 1999). What universities typically request from academics tends to conflict with what gives academics purpose in life meaning that intrinsically motivated activities often go unnoticed by the universities (Churchman 2006). Cut-backs on university funding, for example, constrain quality teaching (Winefield et al. 2003), and potential effort to incorporate such aspects of SAW. Higher education institutions are rarely reported as facilitating or enhancing spiritual development (Astin & Astin 1999). Conflicts between personal and organisational values (e.g., quality of teaching and administration work demands) were reported as frequently causing stress and hindering spiritual development (Astin & Astin 1999). Most academics report a considerable amount of stress in life overall, especially in terms of value conflicts, maintaining authenticity, finding meaning and expressing spirituality (Astin & Astin 1999). Churchman (2006) verified that academics typically believe that universities should be places of higher morals and standards, in which behaviours would be ethical and not self-serving. These academics became disappointed with their daily work routines, as universities increasingly focused on profit making and competition.

To our knowledge, it is yet to be investigated whether Gall et al.'s (2005) spiritual appraisal model has been applied specifically within a work context. Based on Gall et al.'s (2005) model, it will be tested whether individual, work-unit and organisation wide SAW moderate (buffer) the influence of job threat stress and job pressure stress on wellbeing and ill-being amongst academics.

Hypotheses

Spiritual appraisal theories of stress and health (Gall et al. 2005); and, the outcomes of previous research that investigates the moderating role of individual spirituality on wellbeing and life stress (e.g., Elam 2000; Hong 2008; Youngmee & Seidlitz 2002) have shown that individual spirituality can moderate the influence of stress on health. It was therefore expected that; individual, work-unit and organisation-wide SAW (Moderator Variables) would moderate or buffer (reduce) the effect of job threat stress and job pressure stress (Independent Variables) on wellbeing and ill-being (Dependent Variables).

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, fifty-eight were male and one participant did not specify gender. Most came from the Social Sciences discipline (21.6%), and Business (16.5%). A small percentage also came from a variety of other disciplines. Participants' ages ranged from 25 to 66 years (M = 43.66, SD = 11.06).

The number of years participants had been employed in an academic position ranged from 0.25 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 with around more than half having children (57.6%).

Most participants were Australian born (70.5%); the remaining participants 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%), Professors (2.9%) and Department Heads (0.7%) were also represented. [1] 7.2% indicated 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 employed by rural universities, and 10.1% private universities.

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 a national magazine for Australian University academics (*Campus Review*).

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 SAW scale, a job stress scale, and a wellbeing scale.

The measuring instrument used for the purpose of our study was constructed as follows:

Firstly, *'Spirituality at Work'(Moderator Variable)* was operationalised as a measure which included, 6 items from of Ashmos and Duchon's (2000) Meaningful Work items were used to measure SAW at the individual level. Participants indicated on a 6-item rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*) the extent to which they agreed with certain statements, for example "I experience joy in work" (Ashmos & Duchon 2000, p. 143).

Milliman et al. (2003) confirmed that when the 6 meaningful work items were used to assess workplace spirituality and employee work attitudes, they demonstrated good internal consistency (Cronbach's alpha =.88). Secondly, Milliman et al.'s (2003) 7 sense of Community items were used to measure the Work-Unit level of SAW with participants indicating on a similar rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*), the extent of their agreement with statements, such as "Working cooperatively with others is valued" (Milliman et al. 2003, p. 437). Milliman et al. (2003) established that when the work unit subscale was used to assess workplace spirituality and employee work attitudes, the items demonstrated good internal consistency (Cronbach's alpha =.91).

Eight of Ashmos and Duchon's (2000) alignment with organisational values items were used to measure SAW at the organisation-wide level. Milliman et al. (2003) verified that when the 8 organisation-wide SAW items were used to assess workplace spirituality and employee work attitudes, the items demonstrated good internal consistency (Cronbach's alpha = 0.94).

[1] In Australia there is a hierarchy of 5 full-time academic levels: lowest is Associate Lecturer, then Lecturer, Senior Lecturer, Associate Professor and Professor. A PhD is typically required for Senior Lecturer and higher positions, sometimes also for Lecturers. Tutors can be employed casually and do not always require a PhD. Department Heads are primarily responsible for providing academic, strategic and administrative leadership to the unit, but may also engage in teaching duties. Australian universities also employ a large number of academic research assistants.

Participants indicated on an 8-item rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly disagree*) the extent to which they agreed with certain statements, for example, "I feel positive about the values of the organisation" (Ashmos & Duchon 2000, p. 144). A confirmatory factor analysis on each of the 3 subscales displayed a good model fit (Milliman et al. 2003).

To measure the independent variable job stress, Stanton et al.'s (2001) 15-item Stress in General Scale was used. Participants indicated on a 3-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). This measure includes two subscales, job threat stress and job pressure stress with the job threat stress subscale consisting of 8 items (irritating, under control, nerve-wracking, hassled, comfortable, more stressful than I'd like, smooth running and overwhelming) and the job pressure stress subscale consisted of 7 items (demanding, pressured, hectic, calm, relaxed, many things stressful, and pushed). Some items were reversed scored. 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).

The dependent variables wellbeing and ill-being were measured using an adaption of the Multidimensional Health States Scale – Short Form (Hardie et al. 2005), to gauge the extent to which individuals experience a range of physical and mental states related to wellbeing and ill-being in the past month. The 35-item scale was rated in the current study on a 6-point rating scale ranging from 0 (*not experienced*) to 5 (*strongly experienced*). The scale included five wellbeing subscales: social wellbeing (friendly, sociable, cheerful, enthusiastic), somatic wellbeing (physically fit, active, strong, agile), emotional wellbeing (calm, relaxed, content, satisfied), cognitive wellbeing (competent, confident, capable, alert, efficient), and sexual wellbeing (sensual, attractive, affectionate). The scale also included three ill-being subscales: depression (miserable, gloomy, sad, depressed, trouble sleeping), anxiety (tense, nervous, worried, uptight, indecisive), and somatic symptoms (backache, muscle pain, headache, indigestion, abdominal pain). The MHSS-SF has previously demonstrated good construct validity (Hardie et al. 2005) and factor structure (Morris 2008); total wellbeing and ill-being measures have shown good internal consistency (Hardie et al., 2005; Cronbach's alpha for wellbeing = .92 and ill-being = .90).

Results

Correlational analyses were performed to test if the main study variables were viable to include in the main moderation analyses. Hierarchical regressions were then performed in order to investigate whether SAW moderated (or buffered) the influence of job stress on wellbeing and ill-being. Variables used in the multiple regression analyses were centered in order to minimise multicollinearity problems (Tabachnick & Fidell 2007). Table I below provides the descriptive statistics for the main study variables prior to centering.

Table I : Summary of Descriptive Statistics

Variables	*Mean*	*SD*	*Min*	*Max*	*Range*
Individual SAW	5.44	1.18	1.50	7.00	1 - 7
Work Unit SAW	4.70	1.25	1.43	7.00	1 - 7
Organisation-wide SAW	3.54	1.36	1.00	6.50	1 - 7
Wellbeing	3.25	.88	.70	5.00	1 - 5
Ill-Being	1.99	1.13	.00	5.00	1 - 5
Job Threat Stress	1.17	.83	.00	3.00	0 - 3
Job Pressure Stress	2.07	.90	.00	3.00	0 - 3

N = 139. *Note.* SAW = Spirituality at Work.

As can be seen from Table I in comparison to the range of possible scores for each scale, on average, academics experienced relatively moderate levels of job threat stress and high levels of job pressure stress. On average, academics experienced relatively high levels of individual SAW, medium to high levels of work-unit SAW, and medium levels of organisation-wide SAW.

Cronbach's alpha reliabilities were calculated for each of the scales to determine the reliability of the measures. Bivariate correlations were conducted to determine whether the three SAW subscales (individual, work-unit and organisation-wide levels) were significantly related to job threat stress, job pressure stress, wellbeing and ill-being.

Only independent variables that correlated with dependent variables were included in subsequent multiple regression analyses. Table II below shows the reliability coefficient for each scale and the Pearson *R* correlation coefficients between the measures.

Table II: Reliability Coefficients and Bivariate Correlations among Study Variables

	Individual SAW	*Work-Unit SAW*	*Organisation-wide SAW*	*Wellbeing*	*Ill-Being*	*Job Threat Stress*	*Job Pressure Stress*
Individual SWS	**[.90]**						
Work-Unit SWS	.39***	**[.90]**					
Organisation-wide SWS	.33***	.46***	**[.94]**				
Wellbeing	.33***	.37***	.36***	**[.93]**			
Ill-Being	-.20*	-.21*	-.21*	-.44***	**[.93]**		
Job Threat Stress	-.37***	-.36***	-.40***	-.57***	.49***	**[.85]**	
Job Pressure Stress	-.32***	-.33***	-.28**	-.45***	.37***	.65***	**[.88]**

$N = 139$. *Note.* Cronbach's alpha reliabilities are shown on the diagonal in bold. SAW = Spirituality at Work. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

As shown in Table II, the SAW subscales (individual, work unit and organisation-wide) were moderately and positively correlated with each other. All three SAW subscales were positively, and weak-to-moderately correlated, with wellbeing. They were negatively and weak-to-moderately, correlated with ill-being, job threat stress and job pressure stress. Individual and organisation-wide SAW were most strongly correlated with job threat stress. Job threat stress and job pressure stress were negatively and moderate-to-strongly correlated with wellbeing; and positively and moderately related to ill-being. All of these variables were retained for subsequent regression analyses as they significantly correlated with each other.

The bivariate relationships of the continuous demographic variables (age, number of years employed in an academic position and number of contact hours per week), and the dependent variables were examined to determine whether to control for demographics in subsequent analyses or not. The only significant correlation was between age and ill-being ($r = -.21$, $p < 0.05$). There were no differences in the study variables for gender. Consequently, multiple regression analyses were performed on the sample as a whole.

Moderator Models

Baron and Kenny (1986) argue that moderation results when the relationship between two variables changes as a function of the moderation variable. The moderator hypothesis is supported if the interaction between the independent variable and moderator significantly influences the dependent variable (Baron & Kenny 1986). Buffering moderation occurs when the moderator variable weakens the effect of the independent variable on the dependent variable (Frazier et al. 2004). Figure II below demonstrates the moderation model Baron and Kenny (1986) and Frazier et al. (2004) describe.

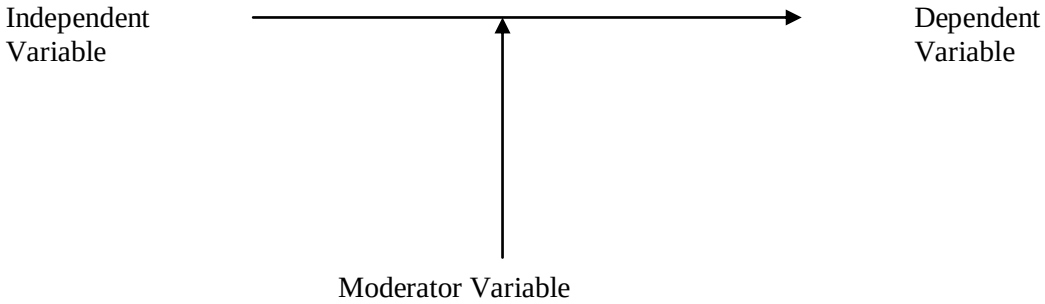

Figure II Moderator Model (Source: Frazier et al. 2004, p. 116)

To test for moderator effects, Frazier et al. (2004) firstly recommend centering the independent and moderator variables (e.g., subtracting the sample mean from each individual score). Secondly, product terms are calculated which represent the interaction between the independent variable and the moderator variable (Frazier et al. 2004).

Thus, product terms are computed by multiplying the newly centered independent and moderator variables together. Moderation models are tested using hierarchical regression analysis: the centered variables are entered in block one, and product terms in block two (Frazier et al. 2004).

Hierarchical regression analyses were performed to test moderation models involving interactions between the three SAW variables and the two job stress variables in the prediction of wellbeing and ill-being. Two separate hierarchical regression analyses were conducted in order to examine moderator effects for the two dependent variables separately, that is, wellbeing and ill-being. Although the general structure of the regression equation was the same for both dependent variables, the independent variables entered at the first step varied. For the dependent variable of ill-being, age was controlled for by entering it in the first step before SAW.

Moderator Models for Wellbeing and Ill-being. Centred individual, work-unit and organisation-wide SAW variables and centred job threat stress and job pressure stress variables were entered in block one, and the six product terms (centred spirituality at work x centred job stress') were entered in block two, with wellbeing entered as the dependent variable. The results of the hierarchical regression analysis are shown below in Table III. *R* was significantly different from zero at the end of each step. After step two, with all the independent variables in the regression equation, $R = .64$, $F\ (11, 127) = 7.82$, $p < 0.001$.

Table III: Summary of Hierarchical Regression Analysis for Job Stress, Spirituality at Work and Wellbeing

Step	*Predictor*	R^2	*Adjusted* R^2	R^2 *Change*	*F*	*df1,*	*df2*	*p*
1	Individual SAW Work-unit SAW Organisation-wide SAW Job threat stress Job pressure stress	.38	.35	.38	15.97	5,	133	<.001
2	Individuality SAW x job threat stress x job pressure stress Work-unit SAW x job threat stress x job pressure stress Organisation-wide SAW x job threat stress x job pressure stress	.40	.35	.03	1.02	6,	127	.416

$N = 139$. *Note.* SAW = Spirituality at Work

As shown in Table III, adding the set of six product terms failed to produce a significant increment in R^2. In addition, no product term reached significance at the .05 level, suggesting that there was no interaction between spirituality at work and job stress in the prediction of wellbeing. Therefore, spirituality at work did not moderate the influence of job stress on wellbeing. Though, in block two, the main effect of job threat stress significantly predicted wellbeing ($sr_i^2 = .07$, $B = -.40$, $\beta = -.38$, $p < .001$) over and above the other variables. The 95% confidence interval for *B* was from -.61 to -.19 for job threat stress.

At the bivariate level, age correlated significantly with ill-being, therefore its influence on ill-being was controlled in the hierarchical analysis. Age was entered in block one; centred individual, work-unit and organisation wide spirituality at work variables and centred job threat and pressure stress variables were entered in block two; and the six product terms (centred spirituality at work x centred job stress) were entered in block three, with ill-being as the dependent variable. The results of the hierarchical regression analysis are shown below in Table IV. *R* was significantly different from zero at the end of each step. After step three, with all the independent variables in the regression equation, $R = .57$, $F\ (12, 126) = 5.11$, $p < .001$.

Table IV: Summary of Hierarchical Regression Analysis for Job Stress, Spirituality at Work and Ill-being when Controlling for Age

Step	*Predictor*	R^2	*Adjusted* R^2	R^2 *Change*	*F*	*df1,*	*df2*	*p*
1	Age	.05	.04	.05	6.49	1,	137	<.05
2	Individual SAW Work-unit SAW Organisation-wide SAW Job threat stress Job pressure stress	.31	.28	.27	9.98	5,	132	<.001
3	Individuality SAW x job threat stress x job pressure stress Work-unit SAW x job threat stress x job pressure stress Organisation-wide SAW x job threat stress x job pressure stress	.33	.26	.02	.64	6,	126	.70

N = 139. *Note.* SAW = Spirituality at Work

As shown in Table IV, the set of six product terms failed to produce a significant increment in R^2. In addition, no product term reached significance at the 0.05 level, suggesting that there was no interaction between spirituality at work and job stress in the prediction of ill-being. Therefore, spirituality at work did not moderate the influence of job stress on ill-being. However, in block 3, the main effects of job threat stress (sr_i^2 = .09, *B* = .61, β = .45, $p <$ .001) and age (sr_i^2 = .06, *B* = -.03, β = -.26, *p* = .001) significantly predicted ill-being over and above that of the other variables. Of the significant predictors, job threat stress explained more variance in ill-being than did age. The 95% confidence interval for *B* was -.04 to -.01 for age, and from .32 to .89 for job threat stress.

Discussion

Due to the increasing popularity of research conducted on spirituality at work, this research aimed to investigate positive and negative outcomes of spirituality on stress and health experienced at work by Australian academics. Specifically, it was hypothesised that spirituality at work would have a buffering effect on the detrimental influences of job stress on both wellbeing and ill-being. Contrary to expectations the hypothesis was not supported. Results of the initial correlation analyses suggested that academics with high levels of spirituality at work (individual, work unit and organisation-wide) tended to experience fewer instances of ill-being, more instances of wellbeing, less job threat stress and less job pressure stress. Academics with high levels of job threat stress and less job pressure stress tended to experience more instances of ill-being and fewer instances of wellbeing. At a multivariate level, however, spirituality at work did not buffer the influence of job stress on wellbeing or ill-being. However, job threat stress did significantly predict decreased wellbeing over and above job pressure stress, spirituality at work and the interaction variables.

Job threat stress and age significantly predicted increased ill-being over and above job pressure stress, spirituality at work or the interaction variables. Not surprisingly, symptoms of ill-health tended to increase with age among academics. It seems that when academic teaching staff felt irritated, lacked control; or were nerve-wracked, hassled, uncomfortable, or overwhelmed (due to their work), they were less likely to experience wellbeing, and more likely to experience ill-being. Contrary to expectations achieving meaningful work, experiencing a sense of community among colleagues, and alignment between individual values and the values of the organisation, neither fostered academics' wellbeing, or reduced their ill-being. The results are consistent with studies that found a significant detrimental influence of job threat stress on health (Elfering et al. 2005; Jamal 2005; Palliser et al. 2005; Shields 2006; Siying et al. 2007). The results were, however, differing in agreement with research which found that sense of community (work-unit aspect of spirituality at work) helps academics better cope with stress (see Schuler 1982) and those which demonstrated a buffering effect of spirituality at work on the influence of job stress on wellbeing (see Elam 2000; Hong 2008; Youngmee & Seidlitz 2002; Calicchia & Graham 2006; Ellison 1991; Ellison et al. 2001).

This sense of community may not have translated into the level of support necessary to buffer their levels of stress. It is possible that time is just not spent on making sure all is well with fellow colleagues. The results were also consistent with the research demonstrating the detrimental influence of job stress on health amongst university students (e.g., Calicchia & Graham 2006; Elam 2000; Hong 2008; Youngmee & Seidlitz 2002), teaching (e.g., Goddard et al. 2006; Schwarzer & Hallum 2008) and management (e.g., Hayes 2007; Wong 2007).

Implications

Results of this study are consistent with Lazarus and Folkman's (1984) findings as represented in a transactional model of stress and coping. They posit that job threat stress directly influences academics wellbeing and ill-being detrimentally. Even though Gall et al.'s (2005) spiritual appraisal model was based on the transactional model of stress and coping, the results did not give support to the spiritual appraisal model. Gall et al.'s (2005) spiritual appraisal model may need refinement when applied to the academic work environments. The ever-increasing pressures and anxieties of academic life may be overriding the impact of spiritual appraisal on work stressors, even though previous literature argues a need for spirituality in the workplace. Nevertheless, incorporating spirituality at work models, such as Ashmos and Duchon's (2000), may be usefully incorporated into contemporary management theories and have potential value for universities and businesses of the future given that researchers have often pointed out the lack of development in theoretical understanding of how spirituality is an influence in the workplace (Butts 1999; Cunha, Rego & D'Oliveira 2006; Giacalone & Jurkiewicz 2003). This research indicates the importance of continuing to empirically assess and refine these models.

Although the results implied that spirituality at work does not thus far directly predict higher wellbeing or lower ill-being amongst Australian academics, in environments where job pressure stress is very high, they also suggest the ability of spirituality to moderate the influence of job stress on health may be overridden. The results of the moderation analyses could therefore be attributed to the sample used in the study. Where these academics felt extremely anxious about university stressors, spirituality at work may not have been effective in buffering the effects of stress on wellbeing or ill-being. These findings substantiate the earlier view that the effectiveness of spirituality in coping with stress depends on the level of stress experienced (Youngmee & Seidlitz 2002).

These findings imply that wellbeing and ill-being of academics are predominantly influenced by job threat stress. Interestingly, job pressure stress does not appear to influence wellbeing or ill-being. This may imply that job pressure stress does not influence wellbeing or ill-being at all, or that job pressure stress may be only influential of wellbeing and ill-being in particular circumstances or among particular samples.

Thus, universities should contemplate incorporating a stress management (job threat focus) component into Human Resource Management (HRM) programs, in order to promote wellbeing, and reduce ill-being. As job threat stress relates to anxiety or overwhelming feelings of job stress, while pressure represented time and demand aspects of job stress (Stanton et al. 2001), person-centred stress management techniques could be considered in order to promote wellbeing and combat ill-being. Examples of strategies include promotion of employee relaxation, exercise, good eating habits and counselling (Aderman & Tecklenburg 1983; Bruning & Frew 1985; Palmer & Dryden 1994; Richardson & Rothstein 2008; Stone 2008).

On average, high levels of individual spirituality at work were found among academics in this sample, yet individual spirituality at work was not found to have influenced wellbeing, job stress or work-life conflict. Spirituality may not yet have the potential to positively influence wellbeing over and above job stress, even if spirituality amongst academics is high. This may change in time as universities enter the profit-making market (Churchman 2006), and like other businesses across the globe, move into the new spirituality paradigm (Ashmos & Duchon 2000). Spiritual Human Resource Management (HRM) practices currently may be more important in Australian corporate businesses. Corner (2009), claims that spirituality at work is seen as a critical resource for business in the 21st century by both academics and practitioners in terms of business ethics and sense of community and interconnectedness. In order to add value to future wellbeing HRM initiatives, universities should consider including spirituality at work as a facet of their organisational culture and wellbeing initiatives.

HRM programs or interventions aimed at improving wellbeing should not be implemented purely to effect the bottom line, or as a short-term fad (Dehler & Welsh 2003; Marques 2005). Organisations should develop spiritual, healthy and flexible cultures in order to become socially responsible, meaningful, community orientated, authentic and employee focussed (Milliman et al. 2003; Mitroff & Denton 1999b).

Harrington et al. (2002) predicted that incorporating spirituality into HRM practices would become an important part of every type of organisation in the future, big and small. Mitroff and Denton (1999a) also suggest that a very important challenge for management in the next millennium would be incorporating employees' spiritual needs into the workplace, through recognition via HRM practices.

Limitations and Suggestions for Future Research

The term 'spirituality' has often been associated with religion (Astin & Astin 1999). This association may have constrained participants responses, particularly if academics interpreted 'spirituality at work' as 'religion'. It is important to clearly distinguish between religion and spirituality, as outcome of studies investigating the influence of spirituality and/or religion will vary depending on what definition of spirituality is used and how participants interpret it (Hebert, Weinstein, Martire & Schulz 2006; Wills 2009). Further research agendas should ensure that 'spirituality at work' is not confused with religion. Terms such as personal authenticity, mission in life, or sacredness of life (Astin & Astin 1999); the transcendent, complete soul and interconnectedness (Hebert et al. 2006; Mitroff & Denton 1999b) as expressed through work, may better explain what is meant by the term spirituality at work.

As spirituality is claimed to be a subjective concept (Giacalone & Jurkiewicz 2003), the use of only quantitative data collection methods and analysis may have limited the depth and quality of results in our study. Self-report measures were used for all the variables, and this may have created biases in the data (Dyer 2006). A multi-method approach combining qualitative and quantitative methods could be considered in future studies, to avoid methodological biases (Dyer 2006). Using a mixed methods approach may also could give the researcher comparable and complementary information about the participants' spirituality at work (Murphy & Davidshofer 2001).

The study was further limited by the small sample size which impaired the potential to establish causal relationships between spirituality at work and both wellbeing and ill-being. The sample size also compromised the potential to investigate several sets of relationships to be tested simultaneously (as is found in the real world). Future studies (with appropriate sampling methods) may utilise structural equation modelling. A longitudinal study would also aid in determining the causal association between spirituality at work, job stress and wellbeing (Tabachnick & Fidell 2007).

In order to preserve reliability of the measures, total wellbeing and ill-being measures were used in the analyses rather than individual subscale scores (social, somatic, emotional, cognitive and sexual wellbeing, and depression, anxiety and somatic ill-being). If any direct effects or moderation effects involving these aspects of wellbeing and ill-being were present, they may not have been evident due to the use of total wellbeing and ill-being scores. Future research could investigate different aspects of wellbeing and ill-being as previous research suggests that spiritualty is a moderating influence on the relationship between stress and some aspects of health but not others (e.g., Elam 2000; Hong 2008).

Conclusion

This study aimed to address gaps in the current literature on spirituality at work, particularly the lack of research on Australian academic teaching staff. The study improved on many previous studies, which generalised definitions and measures of individual spirituality to the workplace. This research used an alternative approach that utilised an existing spirituality at work measure. Measures that previously demonstrated good reliability and validity were selected to empirically investigate the impact of spirituality at work on HRM issues. Instead of investigating the relationship between individual spirituality, life stress and wellbeing, the present study investigated spirituality at work's influence on wellbeing, ill-being and job stress (threat and pressure) specifically. Multidimensional measures of these variables were used to better understand the complex nature of spirituality at work including its potential to positively and negatively influence organisational outcomes. The present study contributes to the current literature, on moderation effects of spirituality on job stress and health, previously uninvestigated in workplace-specific contexts, notably in academia or with empirical methods. From this research, it is evident that further exploration of the construct is essential to better understand potential benefits of spirituality in the workplace.

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