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Connie Zheng John Molineux Soheila Mirshekary Simona Scarparo

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Developing individual and organisational work-life balance strategies to improve employee health and wellbeing

Connie Zheng, John Molineux, Soheila Mirshekary and
Simona Scarparo

Graduate School of Business, Deakin University, Burwood, Australia

Abstract

Purpose – Work-life balance (WLB) is an issue of focus for organisations and individuals because individuals benefit from having better health and wellbeing when they have WLB and this, in turn, impacts on organisational productivity and performance. The purpose of this paper is to explore relevant WLB factors contributing to employee health and wellbeing, and to understand the interactive effects of individual WLB strategies and organisational WLB policies/programmes on improving employee health and wellbeing.

Design/methodology/approach – Using the data collected from 700 employees located in Queensland, Australia, multiple regression analysis was conducted to examine the variables related to individual WLB strategies and organisational WLB programmes. Several multiple regression models were used to evaluate interrelated relationships among these variables and their combined effects on employee health and wellbeing.

Findings – The authors found that employees exercising their own WLB strategies showed better health conditions and wellbeing than those who do not; they were also more capable of achieving WLB. Both availability and usage of organisational WLB programmes were found to help employees reduce their stress levels, but interestingly to have no direct association with WLB and employee health. Several control variables such as age, working hours, education level and household incomes were found to have moderate effects on employee health and wellbeing.

Originality/value – Employee health and wellbeing are determined by multiple factors. In distinguishing from prior research in this field, this study discovers an important interface between individual WLB strategies and organisational provision of WLB policies/programmes supplemented by several exogenous factors in addressing overall employee health and wellbeing. The results have implications for organisational delivery of WLB policies and other human resource management practices to support employees.

Keywords Workplace, Personal health, Stress, Australia, Strategic choices, Health, Attitudes, Individual, Queensland, Organization, Work-life balance (WLB), Wellbeing

Paper type Research paper

1. Introduction

The purpose of this study is to investigate both individual and organisational factors relating to work-life balance (WLB) that may influence levels of employee health and

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wellbeing. Literature identifies that employee health and wellbeing can be affected by many factors, such as work stress, degree of job control by individual employees, conflict between work and life, and lack of organisational support (e.g. Christopher, 2001; Halpern, 2005; Wang *et al.*, 2008; Daley *et al.*, 2009; Hilton *et al.*, 2009; DiRenzo *et al.*, 2011; Skinner and Pocock, 2011), apart from demographic variables such as age and gender (Chiang and Cohen, 1973; Eby *et al.*, 2005). According to prior studies, there is a connection between employee wellbeing, an individual's ability to manage interface between work and life, and organisational WLB policy support. However, is it an individual or an organisational responsibility to manage employee health and wellbeing? The answer to this question is not clear in prior studies. The current research focuses on addressing this important research question.

Interrelationships between employee health, wellbeing and WLB have been extensively studied in the existing literature (see O'Driscoll, 1996; Haworth, 1997; Sparks *et al.*, 1997; Kossek *et al.*, 2001; Guest, 2002; Greenhaus and Powell, 2006; Meyer and Maltin, 2010; Magee *et al.*, 2012). The common understanding derived from these studies is that employees' ability to achieve WLB plays the central role in attaining workplace health and wellbeing. This is because work-family conflict, which can be considered as an absence of WLB, is defined as a form of inter-role conflict in which the role pressures from work and family domains are mutually incompatible in some respect (Greenhaus and Beutell, 1985). It is believed that an absence of WLB predicts poor physical and mental health (e.g. Carlson *et al.*, 2011), induces parental stress and lowers overall employee psychological wellbeing (Rantanen *et al.*, 2008).

In recent years, public debates on workplace health and its impact on community and society have grown (see Williams *et al.*, 2009; Work & Family Policy Roundtable, 2010). As a result, advocacy of using legislative means to regulate organisations to provide more flexibility for employees has increased. In particular, in the western context, organisations are compelled to implement more organisational WLB policies and programmes as a way of improving workplace health and wellbeing (Guest, 2002; Skinner and Pocock, 2011). However, Burgess *et al.* (2007) argue that there is limited availability and usage of WLB programmes, due to various individual, organisational and societal reasons. It appears there is a lack of objective evaluation of the resources that individual employees have for managing their WLB. Additionally, it is not clear whether an employer or an organisation is the sole entity to be responsible for workplace health and wellbeing. This paper is aimed at investigating the interface between employees and organisations in managing workplace health and wellbeing. Therefore, the key focus is to explore the relationships between and effectiveness of individual and organisational WLB strategies. The outcomes may help guide the design and delivery of organisational WLB policies and human resource management (HRM) practices, so as to address the issue of overall employees' needs to maintain health and wellbeing for the benefits of organisational productivity and performance (Goetzel and Ozminowski, 2008; Beauregard and Henry, 2009; Wood and de Menezes, 2010).

2. Literature review and development of hypotheses

2.1 Employee health, wellbeing and WLB

The relationships between employee health, wellbeing and WLB have been thoroughly studied in the existing literature (see O'Driscoll, 1996; Haworth, 1997; Sparks *et al.*, 1997; Kossek *et al.*, 2001; Guest, 2002; Greenhaus and Powell, 2006; Meyer and Maltin, 2010; Magee *et al.*, 2012). The central argument is that if employees were able to manage work-family conflict and achieve WLB, they would likely be healthy and well at the

workplace. Although the literature does not contain one clear definition, WLB is commonly defined as employees' satisfaction and good functioning of multiple roles among work and non-work (family or personal) domains (Kalliath and Brough, 2008). In addition, Greenhaus and Powell (2006) suggest that WLB measures the extent to which an individual can function effectively and satisfactorily in work and family roles. Thus, WLB implies the absence of work-family conflict in controlling or facilitating an individual's multiple roles (Eby *et al.*, 2005; Kalliath and Brough, 2008). Carlson *et al.* (2011) argue that work-family conflict robustly predicts poor physical and mental health. Conversely, if individuals were able to reduce work-family conflict, they would achieve higher level of balance between work and life, hence better health and wellbeing.

Rantanen *et al.* (2008) used a longitudinal data of 365 Finnish employees to examine the relationships between job exhaustion, marital adjustment, parental stress and psychological distress. They concluded that job exhaustion with long working hours induced work-family conflict, increased parental stress and lowered the overall employee psychological wellbeing.

Using the demand-control model, Wang *et al.* (2008) argued that negative health outcomes, such as fatigue, depression, and other physical illnesses are the outcomes of employees' low control over their work and high psychological demands on jobs often imposed by supervisors and peers. Wang *et al.* (2008) concluded that imbalance between work and family life is in fact a stronger risk factor than work stress for inducing mental disorders among employees and significantly affect employee health. Work environments with high psychological demands and low job control were also reported to have a negative impact on employee health and wellbeing and positively induce work-family conflict (e.g. Karasek and Theorell, 1990; Greiner *et al.*, 1998; Grönlund, 2007; Steinmetz *et al.*, 2008; Hilton *et al.*, 2009; Amstad *et al.*, 2011).

Carlson *et al.* (2011) used a sample of 179 women returning to full-time work four months after childbirth and examined the associations of three job resources (job security, skill discretion and schedule control) with work-to-family enrichment and the associations of two job demands (psychological requirements and non-standard work schedules) with work-to-family conflict. They confirmed that work-to-family conflict was negatively related to both physical and mental health, but work-to-family enrichment positively predicted physical health. Drawing from these empirical studies, there appear to be strong and positive correlations among the three constructs of WLB, health and wellbeing. Therefore, it is hypothesised that:

H1. Employees' ability to achieve WLB is positively related to employee health and wellbeing.

Having established the argument on the positive impact of WLB on enhancing employee health and wellbeing, the question of how to manage WLB remains a contentiously challenging issue for both individuals and organisations (Guest, 2002; DiRenzo *et al.*, 2011). This paper argues that it is not sufficient to analyse health, wellbeing and WLB only at the individual level, nor is it adequate to use organisational WLB policies and programmes alone. We argue that it is important to evaluate the interaction between individual WLB strategies and organisational WLB policies/programmes, and their effects on employee health and wellbeing.

2.2 What are the individual WLB strategies?

Guest (2002) provides a comprehensive overview of various theories explaining the concept of WLB. Among these theories (i.e. compensation, conflict and instrumental,

border and enrichment), the border theory, which emphasises the “spatial, temporal, social and behavioural connections between work and family” (Clark, 2000, p. 749), suggests that humans are rather resilient, proactive or enactive, capable of manoeuvring their own locus of control to shape the parameters and scope of their activities and to create meaning both at work and at home (Clark, 2000). Thus, the border theory posits that individuals as human beings are capable of managing both the work and family spheres and constantly engaging in negotiation of the differences between work and non-work domains in order to attain balance.

Another theory that advocates the salient roles of individual employees in managing WLB, hence subsequently better employee health and wellbeing, is the well-known work-family enrichment theory developed by Greenhaus and Powell (2006) (see Chen and Powell, 2012 for testing this theory). They argued that individuals are likely to obtain several resources and skills as daily border-crossers between work and home in order to manage their work/family balance. These skills and resources can be psychological, physical, social-capital, flexible and material resources, which cover a broad set of individual task-related cognitive, interpersonal and multitasking skills necessary for both work and life enrichment (Greenhaus and Powell, 2006, p. 80).

Drawing from insights presented in border theory (Clark, 2000), and enrichment theory (Greenhaus and Powell, 2006), it is believed that individuals often use various WLB strategies to address inevitable work and life exigencies (Moen and Yu, 2000; Hyman *et al.*, 2005). These individual strategies can be classified into two types: attitude and ability. An attitude is a favourable or unfavourable evaluation of something, or positive or negative views of a person, place or position or deposition. According to the arguments presented in positive psychology, people with a positive outlook about self, others and their environment would generally be optimistic (Seligman and Csikszentmihalyi, 2000). Therefore, it is assumed that having a positive attitude and an ability to maintain a positive outlook is the first strategy for individuals to develop their capacity to reduce work-family conflict and achieve better health and wellbeing (Seligman and Csikszentmihalyi, 2000; Rotondo and Kincaid, 2008).

In line with the positive thinking approaches, ability to obtain WLB may be linked to issues of personal control (Guest, 2002). Andreassi and Thompson (2007) found that employees with an internal locus of control were more likely to have lower levels of work-family and family-work conflicts. This may be because an individual with an internal locus of control is able to control a situation, instead of letting the situation control them. This ability of self-controlling situations, which we define as the ability to minimise stressful situations is the second strategy for individuals. Assumingly, managing the competing demands of work and home commitments is indeed stressful for every individual. Yet there would be unique individual responses to stress, resulting in different outcomes of health, wellbeing and WLB (Greiner *et al.*, 1998; Halpern, 2005; Maertz and Boyar, 2011). The ability to minimise stressful situations is closely related to having a positive attitude (Sanz-Vergel *et al.*, 2010).

The third individual WLB strategy is related to abilities to manage other family members' work commitments, especially those of a spouse/partner (Moen and Yu, 2000). For example, Frone *et al.* (1997) found that the existence of a partner/spouse without work commitments helped reduce resources drain on an individual and provided better support to manage conflict situations. Premeaux *et al.* (2007) similarly argue that having a spouse/partner positively influenced workers' ability to balance work with care-giving and leisure activities. Therefore, either in the situation whereby spouses/partners have or have no work commitments, the ability to arrange time to fit

in with other family members' work/leisure commitments is useful for individuals to manage conflict between work and family responsibilities (Hammer *et al.*, 1997; Mauno and Kinnunen, 1999; Moen and Yu, 2000).

Having more children was found to increase parental overload and induce more work-family conflict (e.g. Frone *et al.*, 1997; Premeaux *et al.*, 2007; Adkins and Premeaux, 2012). However, if working couples are able to share and juggle their responsibilities for children and/or childcare, they are more able to maintain a balance and achieve better health and wellbeing (Moen and Yu, 2000). Furthermore, employees often have caring responsibilities beyond childcare. Eikhof *et al.* (2007) critique the current emphasis on the organisational provision of family-friendly policies to support "30-something females" with children, but neglect many workers who care for sick and aging parents or close relatives (p. 327). Skinner and Chapman (2013) advised having flexible work arrangements to support female and male employees alike in their caring responsibilities. Bursack (2014) suggests a few strategies for improving the health and wellbeing of caregivers in order for them to achieve WLB. The ideas presented in these papers all support the notion that developing abilities and strategies to share and manage childcare and other family caring responsibilities is the fourth effective individual and household WLB strategy.

The compensation theory discussed by Guest (2002) postulates that individuals may search for personal fulfilment from non-work activities to compensate the lack of satisfaction in their paid job. Hecht and Boies (2009) found that volunteering and sports, recreation and fitness outside work increased employee satisfaction, which is associated with increased wellbeing. It appears that people engaged in these activities have less work-life conflict as their attitudes to work and life are balanced through a fulfilment of life goals in externally oriented activities. Therefore, abilities to meet lifestyle (i.e. sporting, recreational and social) and other community commitments (i.e. voluntary work and club membership) are important individual WLB strategies.

Nevertheless, individuals have different demographic characteristics (see Section 2.4). It is likely these differences would moderate the impact of individual strategies on health, wellbeing and WLB. Additionally, individuals might focus on exercising only one or more, or a combination of strategies out of the above-discussed six WLB strategies. Therefore, it is possible that some strategies might be more effective than the others in helping individuals achieve health, wellbeing and WLB.

Based on the above discussion, several hypotheses are presented below:

H2a. Individual WLB strategies have a positive impact on employee health.

H2b. Individual WLB strategies have a positive impact on employee wellbeing.

H2c. Individual WLB strategies have a positive impact on employees' achievement of WLB.

However, with a high level of organisational turbulence induced by heightened technology application and competition (Hyman *et al.*, 2005), it is difficult to determine whether individual employees can be in a controlling position to keep balance of their work and life. As argued by Skinner and Pocock (2011), individual ability to manage health, wellbeing and WLB can be reduced without organisational WLB provision. Hence, it is important to examine the types of organisational WLB programmes discussed in the existing literature.

2.3 What are the organisational WLB programmes?

Existing literature provides five distinctive groups that represent organisational WLB policies and programmes: first, flexible working arrangements; second, provision of

health and wellbeing programmes; third, provision of childcare benefits or services; fourth, provision of leave as required to meet family needs; and fifth, organisational understanding and support (see Zedeck and Mosier, 1990; Bonney, 2005; Dex and Bond, 2005; Casper *et al.*, 2007; Mescher *et al.*, 2010). These programmes are generally believed to positively associate with better-reported WLB (Clark, 2000; Skinner and Pocock, 2011). Nevertheless, the effects of implementing these policies/programmes on improving employee health and wellbeing are yet to be conclusive (Guest, 2002).

Flexible working arrangement refers to both flexible work hours and part-time work arrangements, including job-sharing. Prior studies tend to focus on examining the effects of flexible work arrangements on enhancing job satisfaction and employee morale (Zedeck and Mosier, 1990) and organisational citizenship behaviour (Lambert, 2000); reducing absenteeism and turnover (Beauregard and Henry, 2009); and increasing firm-level performance (Perry-Smith and Blum, 2000). Very limited research has linked the aspect of flexible work arrangements to employee health and wellbeing, with the notable exception of Halpern (2005). Halpern (2005) found that employees with time-flexible work policies reported less stress but she did not measure the link between flexibility and WLB.

Health and wellbeing programmes have been extensively provided by contemporary organisations with aims of increasing employee health and chances of organisational success (Meyer and Maltin, 2010). These programmes often cover provision of healthy breakfasts and lunches as well as organisation-based or subsidised gym/physical exercise programmes, which focus on workplace disease prevention and cost-reduction from lower absenteeism and higher employee retention rates (Baicker *et al.*, 2010). Indeed, Goetzl and Ozminkowski (2008) reported that when properly designed, worksite health promotion programmes could increase employees' health as well as their productivity. Anshel *et al.* (2010) examined the effect of a 10-week wellbeing programme on changes in physical fitness and mental wellbeing of 164 full-time employees and found that there were significantly improved scores from pre- to post-intervention on selected measures of physical fitness and mental wellbeing. Nevertheless, no conclusive study outcome has ever measured the impacts of health and wellbeing programmes on WLB.

Childcare assistance programmes, ranging from organisationally sponsored onsite day-care centres to subsidised childcare fees to provision of information with referral services, were reported to aid working parents in finding dependable child or elder care (Zedeck and Mosier, 1990). Prior studies (e.g. Miller, 1984; Youngblood and Chambers-Cook, 1984) tend to associate a company-sponsored day-care facility with higher employee satisfaction, better work climate, higher employee commitment scores and lower turnover intention (Zedeck and Mosier, 1990). Relatively less studies report the extent to which the provision of childcare benefits and services has an impact on health, wellbeing and assist employees to achieve WLB. The study by Morrissey and Warner (2011) found that the organisational provision of reduced childcare fees assists only 47 per cent of the total population surveyed ($N=776$) to improve employee wellbeing (less stress) and WLB. This result (though less than 50 per cent of surveyed employees reported positive outcomes) illustrates some level of effectiveness in using employer subsidies for childcare costs to achieve better employee wellbeing and WLB.

Leave provision tends to be either enforced by legislative devices in the west (e.g. maternity and parental leave) (Hardy and Adnett, 2002; Pocock, 2005) or informally arranged by small companies (Dex and Scheibl, 2001). In Australia, often leave provisions only meet minimum legal requirements (Burgess *et al.*, 2007) and small firms are less willing to bear the brunt of the costs of the leave policy (Zedeck and Mosier, 1990). As a result, Australian women employees are still less likely to achieve WLB

despite formal leave provisions (Burgess *et al.*, 2007). In contrast, informal leave arrangements and managerial discretion in assessing individual employees' situational factors appear to be salient in effective implementation of leave and other WLB policies at work, as reported by Burgess *et al.* (2007). Furthermore, Lapierre and Allen (2006) argued that social support from a supervisor and peers helps reduce work-family conflict and improve employee wellbeing. Seiger and Wiese (2009) also suggest the effectiveness of applying organisational understanding and managerial support in achieving employee wellbeing and WLB. Thus, employees working in family-supportive environments, with positive reinforcement to espoused organisational WLB policy, likely experience lower stress and less work-family conflict, leading to greater job and family satisfaction and WLB.

Based on the above discussion, further hypotheses are developed:

- H3a.* Individual WLB strategies are positively correlated with organisational provision of WLB policies/programmes.
- H3b.* Individual WLB strategies complemented by organisational provision of WLB policies/programmes positively impact on employee health.
- H3c.* Individual WLB strategies complemented by organisational provision of WLB policies/programmes positively impact on employee wellbeing.
- H3d.* Individual WLB strategies complemented by organisational provision of WLB policies/programmes positively impact on employees' abilities to achieve WLB.

Just having an organisational WLB policy in place does not mean that it is effectively implemented or utilised by the employees. For example, McDonald *et al.* (2005a, b) found that there was a gap between work-life policy and utilisation in organisations. Therefore, it is important to examine both availability and usage of organisational WLB policies to assess the combined effects of individual and organisational contributions on employee health, wellbeing and WLB. Therefore, it is posited that:

- H4a.* The availability of organisational WLB policies and programmes is positively related to health, wellbeing and WLB.
- H4b.* Employees' active use of the organisational WLB policies and programmes is positively related to health, wellbeing and WLB.

An analytical framework outlining the interrelationship between individual and organisational effort in managing employee health, wellbeing and WLB is depicted in Figure 1. The focus of developing the analytical framework is not to exhaust variables which could have contributed to employee health and wellbeing, but to expand the earlier research to include the analysis of dual roles and responsibilities by individuals and organisations in achieving better employee health, wellbeing and WLB.

2.4 Demographic (control) variables and individual coping strategies impact on employee health and wellbeing

As discussed earlier in Sections 2.2 and 2.3, organisational WLB policies/programmes and individual coping strategies would effect on employee health, wellbeing and WLB, and are also associated with individual characteristics (Chiang and Cohen, 1973; Eby *et al.*, 2005). Common control (demographic) data used for empirical testing in the WLB literature include: age, gender, income, employment status, length of service and daily working hours (see Eby *et al.*, 2005; Debacker, 2008; DiRenzo *et al.*, 2011).

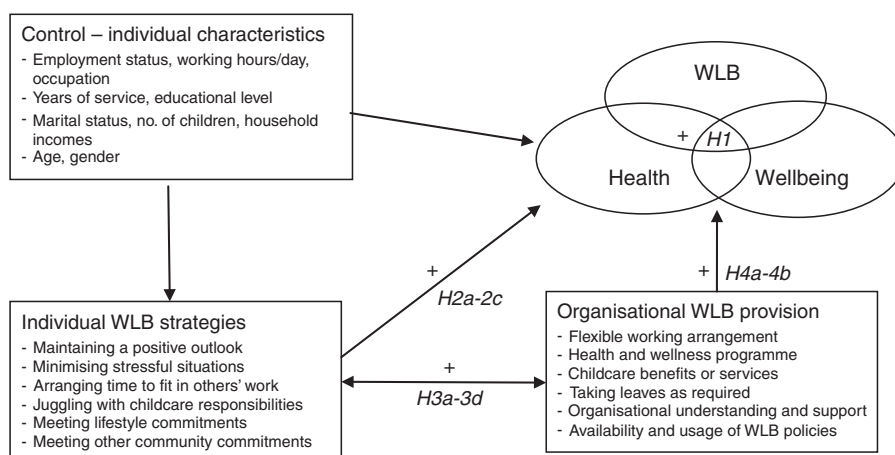


Figure 1. An analytical framework for employee health, wellbeing and work-life balance (WLB)

There was, however, no consensus on whether all of the control variables mentioned above would have positive or negative effects on health, wellbeing and WLB. For instance, Eby *et al.* (2005) reported that the older people get, the better they are able to achieve WLB, yet their health condition may deteriorate when getting older. Meyer and Maltin (2010) suggest that better educated employees may have higher career aspirations hence they can be more stressed and incapable of achieving WLB when trying to climb corporate ladders. DiRenzo *et al.* (2011) claimed that females tend to be more stressed than their male counterparts at work, and that those with more children experience higher level of stress than those with a lower number of children. However, DiRenzo *et al.* (2011) also found that higher household incomes have a negative influence on WLB, but not on health and wellbeing.

Carr *et al.* (2008) suggested that tenured employees would less likely experience inter-role conflict, because on-going employment should lead to less stress. Furthermore, tenured employees would more likely access WLB policies as they already feel secure in their employment, whereas temporary staff may be concerned that accessing WLB practices may jeopardise their employment prospects (Carr *et al.*, 2008).

Additionally, different attitudes and abilities to deal with health, stress and WLB issues were found between manager/professional and non-manager/professional occupational groups (see Wethington and Kessler, 1989; Drew and Murtagh, 2005; Skinner and Pocock, 2011). Managers and professionals were reported to have more opportunities to take advantage of organisational WLB arrangements, especially in the areas of flexi-time, space and pace of work. However, the stress level at work for managers/professionals was reported to be higher than those of non-managerial/professional staff (DiRenzo *et al.*, 2011). Therefore, it is likely that employees in different occupations would have different WLB coping strategies. Furthermore, employees holding different positions would also likely have different outcomes related to health, wellbeing and WLB.

It is argued that health, wellbeing and WLB are impacted by the polar ends of earnings and the demands of longer working hours when holding higher office (i.e. managerial positions) (Debacker, 2008; DiRenzo *et al.*, 2011). People with higher income levels, though able to afford childcare costs to balance work and family responsibilities,

were reported to experience greater work-family conflict, largely due to more extensive job demands and lower control of working hours. In contrast, people who are “time poor” with “low cash” would suffer most in the area of wellbeing and WLB (DiRenzo *et al.*, 2011).

Therefore, despite there being no consensus on directional relationships between control variables, individual WLB strategies and employee health/wellbeing/WLB, it is clear that these variables are closely related, as discussed in the existing literature. Control variables, such as age, gender, employment status, working hours, occupation, years of service, educational level, number of children and household income, are believed to be closely associated with individuals’ ability to implement WLB strategies, and with employee health, wellbeing and WLB. Thus, these variables are included in the multiple regression analysis in this study.

3. Research methods

In order to test the hypotheses proposed in Section 2, a large scale population survey was conducted, via telephone interview, to collect the data related to individual characteristics, the perception of individuals’ WLB strategies and organisational provision of WLB programmes, in addition to information about individuals’ current health condition, stress level and overall thoughts on WLB issues. In this section, we outline the data collection process, which explains the target population, sampling strategy and final survey responses. We also discuss the measurement of each variable used in the hypotheses testing.

3.1 Data collection

This study uses the population survey data collected from the 2007 Social Survey conducted by the Population Research Laboratory (PRL) within the Centre for Social Science Research of the first author’s former working university. The target population designed for telephone interview were all persons 18 years of age or older living in Queensland, Australia at the time of the survey. The PRL held a database of telephone numbers covering the entire Queensland region. The database had been regularly updated and used for generating the survey sample. The sample for this study was drawn from the telephone database by using the ten-station Computer-Assisted Telephone Interviewing (CATI) system installed on a local area network at the PRL. The CATI system was able to select, with replacement, a simple random sample of phone numbers, purging all duplicate, mobile and business numbers. Nursing homes and collective dwellings were also deleted from the sample. In addition, a random selection approach with a specified guideline was used to ensure that male and female respondents had an equal chance to be contacted.

As a result of these processes, 12,600 telephone numbers were selected. Within the household, one eligible person was selected as the respondent for the 20-minute telephone interview. 3,620 households were contacted by a group of experienced PRL telephone interviewers. Out of these, 1,212 persons completed telephone interviews, representing about a 33 per cent response rate. While the random sample had 1,212 people of the total contacted, the results analysed for the current research were based on only 700 respondents who reported being in current paid employment at the time of the survey.

3.2 Measurement of independent variables

Three steps were taken to obtain data related to individual WLB strategies as independent variables. First, respondents were asked to think about their current status in terms of

balancing their work and personal/family life. Second, the telephone interviewers would read out several pre-determined WLB strategies as discussed earlier in the literature review section, and listed in Figure 1. Third, respondents were then asked to rate the importance of each strategy (1 being “not at all important” to 5 being “very important”) in order for them to achieve WLB. No direct questions of these strategies on health and wellbeing impacts were asked, but it is assumed that WLB would create spillover effects on health and wellbeing as developed in *HI*.

A similar three-step questioning approach was taken to collect data related to employees’ perception of their organisational WLB policies and practices. First, respondents were asked to think about their current working conditions as related to WLB. Second, the telephone interviewers would read out several common organisational WLB policies and practices as discussed in the above literature review and listed in Figure 1. Third, respondents were asked to rate the importance of each of these policies and practices as perceived to be effective in helping them achieve WLB. Questions on whether their employing organisations had any WLB programmes (with coding of 1 being “yes”, 0 being “no”); and the frequency of use by respondents (1 being “never used” to 5 being “very often used”) were also asked.

3.3 Measurement of dependent variables

Three items (i.e. health conditions; wellbeing and WLB) were used as dependent variables. Health was measured by individuals rating their own current health conditions (1 being poor; 5 being excellent); respondents were asked to rate “how would you rate your current health conditions?” With reference to WLB, respondents were asked to rate the level of balance they had between work and personal or family life with a scale of 1 being “not at all balanced” to 5 being “very balanced”. Respondents were also asked a question about their stress level, “how would you rate your current overall wellbeing” with a scale of 1 being “very stressed” to 5 being “not at all stressed”.

We used the stress level as a proxy to measure the overall wellbeing for two reasons. First, Edwards and Rothbard (1999) argue that work-family stress has been “a growing concern in contemporary society”, and that “stress has important human costs in terms of mental and physical illness” (p. 86). Wellbeing would be improved when individuals experience increased fit with work and family satisfaction (Edwards and Rothbard, 1999, p. 119). Second, Casey (2011) in her report of the Australian Psychology Society’s National Survey on “Stress and Wellbeing in Australia in 2011” suggests a strong relationship between stress, wellbeing and psychological and physical health of individuals. Based on these studies, it is reasonable to assume that the level of severity in “being stressed” can signal a person being unwell, though the absence of stress does not necessarily imply wellbeing.

3.4 Measurement of control variables

Demographic data were also collected and keyed into the Statistical Programme for Social Sciences as control variables. These include gender (0 = male; 1 = female), marital status (0 = not married; 1 = married), age (18-100 years old), number of children (0-6), educational levels (1 = pre-school; 7 = university or higher degree), household income categories (0-15), employment status (1 being casual; 2 being part-time; and 3 being full-time), length of service (1-15 years) and daily working hours (2-17 hours). These are common control variables included in prior studies assessing the factors contributing to health, wellbeing and WLB (see Eby *et al.*, 2005; Debacker, 2008; DiRenzo *et al.*, 2011).

In addition, the sample had fifteen types of occupations, ranging from managers, professionals and associate professionals to sales, tradespeople and clerical/administrative to self-employment (International Labour Office (ILO), 1987; Cosca and Emmel, 2010). These occupations were recoded into two types: managers and professionals (coded as "1") and all others (coded as "0"). The rationale of separating two occupations was discussed earlier in Section 2.4, based on the different attitude and abilities to deal with health, stress and WLB issues. Thus, it would be meaningful to compare these two distinctive groups and their responses to health, wellbeing and WLB.

As discussed earlier (see Section 2.4), household incomes and long working hours impact on wellbeing and WLB; this is especially the case for those managers holding more responsibilities (Debacker, 2008; DiRenzo *et al.*, 2011). Thus, 15 categories of household income levels (1 = less than \$40/week; 15 = over \$2,500/week) and working hours per day (ranging 2-17 hours) were also included as control variables for subsequent regression analysis.

4. Results

Table I provides an overview of means and correlations of all dependent and independent variables included in the study. The reliability analysis of 13 items of independent variables indicates Cronbach's α -values of 0.83, suggesting a reasonable internal consistency and reliability of these variables.

Briefly, employees surveyed in the current study were largely middle-age (mean = 44.20), married (68 per cent), working full-time (mean = 2.56) and holding either a managerial or professional position (53 per cent). They generally rated reasonably high on all individual WLB strategies and organisational WLB programmes with means between 3.08-4.65, except with lower scores on provision of childcare benefits or services (mean = 2.75). This is probably because the majority of respondents (52 per cent) did not have children and the mean for the number of dependent children across the population surveyed is less than 1. It is reasonable therefore to suggest that the respondents surveyed may not place a strong emphasis on organisational childcare subsidies as a mean to achieve WLB.

Interestingly, only 40 per cent out of 642 responses indicated that their organisations have some form of WLB policies and programmes in place. Furthermore, among 272 respondents who have responded to the question about the usage of WLB programmes, only a few actually use the programmes on a regular basis (mean = 2.66). The result suggests that the gap between the provision and utilisation of organisational WLB policy also existed in the context of surveyed Australian employees in Queensland (McDonald *et al.*, 2005a, b).

Table I also shows that all six items of individual WLB strategies are well correlated with 5 items of perceived organisational provision of WLB policies and programmes, with all coefficients significant at $p < 0.01$, except "provision of childcare benefits or services" (coefficient $\alpha = 0.05$, $p > 0.1$). However, it is found that "juggling with children and/or childcare responsibility" is significantly correlated with "availability of organisational WLB programs" ($\alpha = 0.11$, $p < 0.05$) and "usage of organisational WLB policies/programs" ($\alpha = 0.19$, $p < 0.01$). All items of individual WLB strategies are also significantly correlated with "availability of organisational WLB programs". These results support *H3a*.

Multiple regression results are presented in Table II. Models 1, 4 and 7 test the effects of individual WLB strategies on employee health, wellbeing and WLB. The model summary shows a reasonable fit of the three models with significant levels all at

	N	Means	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Independent variables																		
<i>Individual work-life balance (WLB) strategies</i>																		
1. Maintaining a positive outlook	699	4.65	0.63	1 ^b														
2. Minimising stressful situations	695	4.45	0.77	0.39**	1													
3. Arranging time to fit in with other family members' work commitment	692	4.13	0.97	0.25**	0.24**	1												
4. Juggling with children and/or childcare responsibilities	595	3.74	1.56	0.12**	0.17**	0.37**	1											
5. Meeting lifestyle commitments, i.e. sporting, recreational and social activities	689	3.71	1.09	0.17**	0.14**	0.28**	0.32**	1										
6. Meeting other community commitments, e.g. voluntary work, club membership, etc.	683	3.08	1.35	0.16**	0.20**	0.21**	0.16**	0.43**	1									
<i>Perceived organisational WLB policies/programmes</i>																		
7. Flexible working arrangement	669	4.04	1.09	0.16**	0.17**	0.23**	0.21**	0.14**	0.11**	1								
8. Health and wellness programmes	619	3.08	1.44	0.13**	0.15**	0.25**	0.24**	0.28**	0.24**	0.36**	1							
9. Childcare benefits or services	572	2.75	1.55	0.05	0.18**	0.22**	0.22**	0.11**	0.12**	0.34**	0.23**	1						
10. Taking leave as required to meet family needs	678	4.31	0.85	0.17**	0.14**	0.28**	0.44**	0.31**	0.20**	0.29**	0.52**	0.25**	1					
11. Organisational understanding and general support	661	3.92	1.15	0.14**	0.17**	0.20**	0.16**	0.22**	0.18**	0.32**	0.39**	0.38**	0.38**	1				

(continued)

Table I.
Sample size, means, standard deviations (SD) and correlations among key variables

Table I.

	N	Means	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
12. Available WLB policies/ programmes in organisations	642	0.42	0.49	0.02	-0.01	0.05	0.11*	0.13**	0.09*	0.12**	0.26**	0.08**	0.14**	0.14**	1			
13. Usage of WLB policies/ programmes by individuals	272 ^a	2.66	1.09	0.03	0.05	0.05	0.19**	0.06	0.07	0.16**	0.14*	0.19**	0.14**	0.15*	0.00	1		
<i>Dependent variables</i>																		
14. Perceived health condition	699	3.47	0.94	0.14**	0.08*	0.11**	0.03	0.11**	0.14**	0.08*	0.01	0.02	0.05	0.06	0.04	0.08	1	
15. Perceived employee wellbeing	700	3.92	0.96	0.01	0.06	0.05	-0.03	0.08*	0.05	-0.03	0.02	-0.12*	-0.04	-0.01	0.08*	0.19**	0.17**	1
16. Perceived work-life balance (WLB)	697	3.63	1.02	0.09*	0.14**	0.09*	0.06	0.12**	0.13**	0.05	0.09*	0.02	-0.01	0.03	0.13*	0.15*	0.24**	0.41**
<i>Control variables</i>																		
Employment (casual = 1, part- time = 2, full-time = 3)	700	2.56	0.702															
Years of services with organisations (1-15 years)	695	3.46	1.77															
Working hours per day (2-17 hours)	689	8.21	2.22															
Managers/professionals v. non- mgt./prof. (1 vs 0)	700	0.56	0.49															
Age (18-100)	696	44.20	11.97															
Gender (0 = Male, 1 = Female)	700	0.44	0.49															
Marital status (0 = No; 1 = Yes)	700	0.68	0.47															
No. of children (0-6)	699	0.96	1.21															
Educational level (1-7)	697	5.95	1.02															
Household incomes (0-15)	497	12.33	2.93															

Notes: ^aNote the number generated from only 42 per cent of respondents who are aware of WLB policies/programmes provided by their employers. ^bPearson correlation significance (two-tailed) ** $p < 0.01$; * $p < 0.05$

Independent variables	Dependent variables								
	Health			Wellbeing			Work-life balance (WLB)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Constant/coefficient B*	3.47***	3.28***	2.40***	3.92***	3.33***	4.15***	3.63***	3.15***	4.37***
<i>Individual WLB strategies (standardised coefficient β^*)</i>									
1. Maintaining a positive outlook	0.11***	0.11***	0.10**	-0.02	-0.01	0.00	0.06*	0.07**	0.08**
2. Minimising stressful situations	0.05	0.04	0.04	0.05	0.07*	0.05	0.11***	0.12***	0.09***
3. Arranging time to fit in with other family members' work commitment	0.08**	0.08**	0.07*	0.04	0.07*	0.06	0.05	0.07**	0.04
4. Juggling with children and/or childcare responsibilities	-0.01	-0.01	0.02	-0.05	-0.04	0.02	0.02	0.02	0.05
5. Meeting lifestyle commitments, i.e. sporting, recreational and social activities	0.11***	0.10***	0.09**	0.03	0.03	0.05	0.10***	0.10***	0.10***
6. Meeting other community commitments, e.g. voluntary work, club membership, etc.	0.07*	0.07*	0.06	0.07**	0.08**	0.07*	0.08**	0.08**	0.07**
<i>Organisational WLB policies/programmes</i>									
7. Flexible working arrangement	0.04	0.04	0.05		-0.01	-0.00		-0.02	-0.02
8. Health and wellness programmes	-0.03	-0.03	-0.02		-0.05*	-0.06*		-0.05	-0.04
9. Childcare benefits or services	-0.03	-0.03	-0.02		-0.05*	-0.06*		-0.05	-0.04
10. Taking leave as required to meet family needs	0.01	0.01	-0.01		-0.13***	-0.12***		-0.07*	-0.05
11. Organisational understanding and general support	-0.01	-0.01	-0.02		-0.03	-0.03		-0.04	-0.05
12. Available WLB policies/programmes in organisations	0.03	0.03	0.02		0.08**	0.11***		0.13***	0.14***
13. Usage of WLB policies/programmes by individuals	0.04	0.04	0.03		0.14***	0.14***		0.09**	0.08**
<i>Health conditions</i>									
Wellbeing – stress level			0.08**					0.16***	0.16***
The level of work-life balance			0.21***					0.37***	0.37***
<i>Control variables – individual characteristics</i>									
Employment status (casual, part-time and full-time)		-0.01				-0.02			0.00
Years of services with organisations		-0.05				-0.09**			-0.01
Working hours per day		-0.02				-0.08*			-0.22***

(continued)

Table II.
Multiple regression
results

Improve
employee
health and
wellbeing

Table II.

Independent variables	Dependent variables								
	Health			Wellbeing			Work-life balance (WLB)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Managers (mgt) /professionals (prof.) vs non-mgt/prof.									
Age			-0.03			0.03			-0.02
Gender			0.08**			0.12***			0.09**
Marital status			0.05			-0.10**			-0.05
No. of children			0.05			0.01			0.02
Educational level			-0.01			-0.09**			-0.04
Household incomes			0.11***			-0.09*			-0.05
			0.03			-0.03			-0.09**
<i>Model summary</i>									
<i>R</i>	0.19	0.20	0.27	0.12	0.23	0.33	0.19	0.25	0.37
Adjusted <i>R</i> ²	0.03	0.03	0.07	0.01	0.04	0.08	0.03	0.05	0.11
<i>F</i> -value with sig level	4.36***	2.48***	2.27***	1.62	3.24***	3.55***	4.31***	3.86***	4.62***

Note: Significant level: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

$p < 0.01$. However, each of the individual strategies appears more related to better health and a higher level of WLB, but not with wellbeing, except “meeting other community commitment” (coefficient $\beta = 0.07$, $p < 0.01$) which is slightly related to wellbeing. “Maintaining a positive outlook” and “Meeting lifestyle commitments” ($\beta = 0.11$, $p < 0.01$) are strongly associated with achieving better health and WLB. Being able to arrange time to fit with other members’ work commitments is not necessarily related to WLB, but appears to have some effects on health ($\beta = 0.08$, $p < 0.05$). These results partially support *H2a* and *H2c*, but reject *H2b*.

Note that the adjusted R^2 ranging from 0.01-0.03 in Models 1, 4 and 7 are rather low. Even though the current study finds that individual WLB strategies have some effects on health and WLB, there are in fact many factors unexplained in the models, which would have contributed to employee health, wellbeing and WLB. The factors might be associated with organisational effort in WLB provision as well as individual characteristics. Hence, Models 2, 5 and 8 bring in organisational WLB policies/programmes; and Models 3, 6 and 9 combine all control variables in regression analysis. These models show improved rigour and explanatory power, with the values for adjusted R^2 being increased from 0.03 to 0.05 in Models 2, 5 and 8 and from 0.07 to 0.11 in Models 3, 6 and 9.

We found that the results in Models 3, 6 and 9 support *H1*. In essence, Model 9 indicates that achieving WLB has significant spillover effects on gaining better health conditions ($\beta = 0.16$, $p < 0.01$) and lower employee stress levels so as to increase wellbeing ($\beta = 0.37$, $p < 0.01$). Models 3 and 6 show the contrasting results of impacts of better health and wellbeing on achieving employee WLB. Therefore, there is an interrelationship between health, wellbeing and WLB, in line with previous studies (see O’Driscoll, 1996; Haworth, 1997; Sparks *et al.*, 1997; Kossek *et al.*, 2001; Guest, 2002; Greenhaus and Powell, 2006; Meyer and Maltin, 2010; Magee *et al.* 2012).

There are indeed combined effects of individual WLB strategies and organisational WLB provision on improving employee wellbeing and WLB, supporting *H3c* and *H3d*. However, individual strategies complemented by the organisation WLB provision have no effect on individuals’ health condition, thus rejecting *H3b*.

The availability and usage of organisational WLB policies and programmes have a strong association with the level of employee wellbeing and WLB. The more employees use WLB policies, the lower the level of reported stress ($\beta = 0.14$, $p < 0.01$). In contrast, even if employees did not use WLB programmes, the fact that programmes are available appears to be sending some positive signals to employees who would perceive a greater degree of WLB ($\beta = 0.13$, $p < 0.01$). The results support *H4a* and *H4b*.

Individual ability to juggle childcare responsibility plus the organisational allowance of flexible work arrangements have no relationship either with wellbeing or WLB. Employees perceiving important to take leave as required or to have organisational health and wellbeing and childcare benefits may have experienced a certain level of stress, as coefficients were negative ($\beta = -0.13$, $p < 0.01$ for leave; $\beta = -0.05$, $p < 0.1$ for subsidies). Perhaps only stressed people would see the importance of taking leave. Similarly, taking leave as required was negatively associated with WLB ($\beta = -0.07$, $p < 0.1$), suggesting that if one took leave, there might be a sign of work-life conflict or distress to be addressed.

Several individual characteristics were confirmed to have effects on health, wellbeing and WLB. In particular, working longer hours, though having no effects on health, created detrimental outcomes on increasing stress levels and reduced the chance to balance work and life ($\beta = -0.22$, $p < 0.01$). Therefore, calling for policy change to restrict working hours per week is perhaps a good direction, with an aim to reduce work fatigue (Bonney, 2005; Williams *et al.*, 2009; Skinner and Pocock, 2011).

Age has positive relationships to all three indicators. It appears the older one gets, the better health, wellbeing and WLB conditions they achieve. More educated employees appear to know how to look after their health ($\beta = 0.11, p < 0.01$). Nevertheless, stress levels somehow slightly increased with the increase of educational level ($\beta = -0.09, p < 0.1$). This suggests that better educated employees may have more career aspirations (Meyer and Maltin, 2010), which may have negative impact on their wellbeing, even though this study could not see any different responses to health, wellbeing and WLB among managers/professional and non-managerial/professional groups. Moreover, we did not find a significant link of employment and marital status to health, wellbeing and WLB, as shown in prior studies (e.g. Wethington and Kessler, 1989; Hammer *et al.*, 1997; Mauno and Kinnunen, 1999; Moen and Yu, 2000; Halpern, 2005).

Women were reported to have a higher stress level ($\beta = -0.10, p < 0.05$). This might be associated with the increased number of children ($\beta = -0.09, p < 0.01$). The higher household incomes were confirmed to influence negatively on WLB, but not on health and wellbeing. This is in line with the results concluded by DiRenzo *et al.* (2011).

Carr *et al.* (2008) suggested that tenured employees would be less likely to experience inter-role conflict. The nature of on-going employment should lead to less stress than employees who are on temporary arrangements. Furthermore, tenured employees would be more likely to access WLB policies as they already feel secure in their employment, whereas temporary staff may be concerned that accessing WLB practices may jeopardise their employment prospects (Carr *et al.*, 2008). However, the current study results indicate no association between years of service and health and WLB, but a positive relationship between tenured employees and their stress levels ($\beta = -0.09, p < 0.01$). The implications of these results will be further discussed in the next section.

5. Discussion

This study addresses the key issue of individual vs organisational responsibility in managing employee health, wellbeing and WLB. Different from prior research in the field of WLB, which often focused on either individual characteristics or organisational effort in managing work and family interface (e.g. Steinmetz *et al.*, 2008; Wang *et al.*, 2008; Adkins and Premeaux, 2012), our study tested the combined effects of both individual and organisational effort on perceived employee health, wellbeing and WLB. The results from our current study are significant as they broaden our understanding of the importance of designing and developing appropriate organisational WLB policies and programmes tailored to each individual's specific situation. In the remaining section, we outline several theoretical and practical contributions of our study.

5.1 Theoretical contributions

Our study attempted to develop a conceptual framework to guide the empirical testing of relationships between individual WLB coping strategies, organisational WLB policy/programmes and employee outcomes (i.e. perceived health, wellbeing and WLB). The model can be further tested in different cultural contexts (apart from the more Anglo/western orientation of Queensland, Australia, contained in the present study), which would verify the model's generalisability. Variables included in the framework were largely derived from existing literature, and generally related to both individual characteristics and organisational policies/programmes, hence can be replicated in future studies with similar research design.

From the empirical testing of four sets of proposed hypotheses among a sample of 700 respondents, the directional relationships among key variables become clearer.

As it is shown in the results of our current study (cf. Tables II and III), employees with perceived WLB were found to have better health and wellbeing outcomes than those without. In particular, achieving WLB positively contributes to better employee health and wellbeing, in line with the findings by Halpern (2005) and Wang *et al.* (2008). This result largely confirms the result concluded by Wang *et al.*'s study (2008), which suggests the importance of addressing the issue of employee WLB in order to uphold organisational health and wellbeing.

One of the significant contributions our study makes is that we have found no significant association between organisational WLB programmes implemented alone and perceived health, wellbeing and WLB. In contrast, individual WLB strategies were found to play important roles in helping employees achieve better perceived health and WLB. As mentioned earlier, previous research has outlined the importance of these individual factors (e.g. Frone *et al.*, 1997; Andreassi and Thompson, 2007; Rotondo and Kincaid, 2008). Therefore, it is necessary to re-examine organisational WLB policies and programmes and to ensure they are tailored to meet individual employees' needs. We will discuss further these practical HRM implications in the next section.

We also found that perceived employee health, closely associated with wellbeing and WLB, were largely influenced by the availability and employees' active usage of organisational WLB programmes (*H1*, *H4a* and *H4b* supported in Table III). Despite

Hypotheses	Results	References
<i>H1</i> . Employees' ability to achieve work-life balance is positively related to employee health and wellbeing	Supported	Model 9
<i>H2a</i> . Individual WLB strategies have a positive impact on health	Partially supported	Model 1
<i>H2b</i> . Individual WLB strategies have a positive impact on wellbeing	Rejected	Model 4
<i>H2c</i> . Individual WLB strategies have a positive impact on work-life balance	Partially supported	Model 7
<i>H3a</i> . Individual WLB strategies are positively correlated with organisational provision of WLB policies/ programmes	Supported	Correlation Table I
<i>H3b</i> . Individual WLB strategies complemented by organisational provision of WLB policies/ programmes positively impact on employee health	Rejected	Models 2 and 3
<i>H3c</i> . Individual WLB strategies complemented by organisational provision of WLB policies/ programmes positively impact on employee wellbeing	Supported	Models 5 and 6
<i>H3d</i> . Individual WLB strategies complemented by organisational provision of WLB policies/ programmes positively impact on employees' achievement of work-life balance	Supported	Models 8 and 9
<i>H4a</i> . The availability of organisational WLB policies and programmes is positively related to health, wellbeing and work-life balance	Supported	Models 5 and 6
<i>H4b</i> . Employees' active use of the organisational WLB policies and programmes is positively related to health, wellbeing and work-life balance	Supported	Models 8 and 9

Table III.
Findings supporting/
rejecting hypotheses
in the study

prior studies (e.g. McDonald *et al.*, 2005a, b; Burgess *et al.*, 2007) having critiqued the provision-utilisation gap in organisational work-life policy, employee awareness of organisational WLB policies/programmes, even without usage, would still contribute to their overall sense of wellbeing and WLB (see Table II). Therefore, it appears that the contents of actual organisational WLB programmes were less important than availability of such programmes, although Guest (2002) finds that the effects of these programmes are somewhat inconclusive. Perhaps employers should make the WLB policies/programmes available and accessible to all employees, because even if employees do not use the programmes, they might sense their employers' caring and concern for employee interests and would then be motivated to better manage the work and life interface. However at this stage, we cannot clearly distinguish what type of WLB policies/programmes would show employers' concern or caring, and the extent to which employees are affected by the availability of such programmes. It would be necessary to include these variables for further testing in future studies.

5.2 HRM implications

Examining the results from the current study, it appears that both availability and utility of organisational WLB policies/programmes were important to improve employee outcomes such as perceived better health, wellbeing and WLB. Hence, it is necessary for organisations to build a culture of caring and concern for individual employee needs. Thus employers should not only make organisational WLB policies/programmes accessible to all employees, but also need to encourage them to use these programmes to address individual specific situations and needs. Moreover, employers need to re-evaluate those WLB policies/programmes that are now commonly adopted, but found especially to be rather ineffective from the employee perspective in this study. In particular, flexible work arrangements may provide more flexibility for employers than for employees. This aspect of employers' gain from flexibility was also critiqued by the work of Guest (2002) and Skinner and Pocock (2011). Perhaps the focus should shift to address employees' benefits from flexible work arrangements. This study also found that taking leave was associated with employees' increased level of stress. This implies that other measures of HRM policies be considered. One such measure is to examine the number of working hours and tenured employees. Both variables were found in the current study to have a negative association with employee wellbeing and WLB, over which organisations might have some control.

For instance, employees could be monitored and encouraged not to work extended hours per day. Policies to relocate and re-design jobs for those longer-serving employees should be in place to avoid a general sense of staleness or sameness in the working environment, which induce professional discontent and distress (Meyer and Maltin, 2010). For this aspect, organisational WLB policies should indeed be working hand-in-hand with HRM practices, such as workforce planning and job re-design, to be effective in achieving overall employee wellbeing (White *et al.*, 2003; De Cieri *et al.*, 2005; Meyer and Maltin, 2010).

Furthermore, this study confirmed that individuals were resilient, capable of effectively exercising their own WLB strategies in managing wellbeing and work/life interface, as in line with the arguments presented in the earlier studies (e.g. Moen and Yu, 2000; Greenhaus and Powell, 2006). Instead of adding more WLB programmes, it would make sense for organisations to focus on helping individual employees to harness or develop effective coping strategies. Often positive attitude, time and stress management skills essential to achieve better health, wellbeing and WLB can be identified via the

employee recruitment and selection process. If not, formal and informal counselling and training sessions aimed at developing these psychological coping skills should be embedded in on-going employee professional development programmes, apart from the provision of an Employee Assistance Programme.

Age was found to be positively associated with health, wellbeing and WLB in the current study. As argued by Erickson *et al.* (2010), older employees may have experienced the “empty-nest” syndrome; whereby a reduction in responsibilities and an increase in available leisure time once children become independent would occur. Besides, older workers likely have developed some effective work-life coping strategies with years of experiences at work and in life, which they could pass on to other employees. Therefore, inter-generational communication about health, wellbeing and WLB issues should be promoted within different age groups in organisations to ensure knowledge sharing and transfer throughout the organisation. Exemplary mentoring and coaching programmes with participation of different age groups should be arranged by organisations to not only promote inter-generational communication, but also to eliminate isolation and anxiety of younger employees who face work and life challenges in their early careers.

5.3 Public policy implications

Our current study outcomes clearly indicate that the individual WLB coping strategies must be complemented by organisational WLB provision to have a positive impact on perceived employee wellbeing and WLB, supporting *H3c* and *H3d* (see Table III). However, there are several reasons why the relationship with health outlined in *H3b* was rejected in our current study. First, despite mounting discussions that advocate the organisational role in promoting employee health (e.g. Skinner and Pocock, 2011), health may still remain more or less a personal issue, not an organisational issue. Second, organisational effort in designing health-related programmes embedded in WLB policies was also found to have no impact on health and wellbeing in the current study, despite several prior studies that claim the effects of health and wellness programmes on employee wellbeing (e.g. Goetzel and Ozminkowski, 2008; Anshel *et al.*, 2010; Meyer and Maltin, 2010). Third, several personal characteristics (e.g. age, educational level) and individual strategies (e.g. having a positive outlook, good time management skills to meet family and lifestyle demands) were found to positively increase perceived health conditions. This finding supports earlier research by Allen and Armstrong (2006). The results also support the notion that health is more related to individual’s characteristics, as suggested by Casey (2011). It therefore may not be efficient or effective for organisations to address this issue alone. Health, similar to education, should be treated as a public good, which would be more appropriate to be addressed by the government, instead of individuals and organisations.

Therefore, public policy in terms of addressing employee health should be targeted at individuals and communities, rather than at organisations, for achieving both effectiveness and equity in resource allocation. One role of government is to effectively redistribute and manage limited resources. It is believed that strong government can conduct public campaigns in advocating the positive effects of a range of sports and physical exercises on improving employee health. Operationally, local councils or local governments could fund community-based gyms or fitness centres, and encourage local businesses to support and promote these activities, rather than to demand organisations in implementing health and wellbeing programmes. In addition, robust

governments could consider instituting appropriate employment laws related to employee health and wellbeing to enhance the governance of workplace occupational health and safety practices (Hecht and Boies, 2009; Productivity Commission, 2010).

6. Conclusion

This paper highlights the importance of using individual WLB strategies to address health and wellbeing issues at workplaces. Our findings imply that public policy remains necessary to support individuals and communities in addressing the health issue, whilst organisations should focus more on employee wellbeing and WLB. We also recommend that existing organisational provision of WLB policies/programmes requires further re-evaluation and modification to be effective. This is because employee wellbeing and WLB appear to be influenced both by individual and organisational effort, with organisational strategy in this area likely to be complemented by several HRM strategies, such as recruitment and selection, professional training and mentoring, job design and re-design, and inter-group communication to address the generational workforce gaps.

The study contains several limitations. First, despite variables drawn largely from the existing literature, both individual strategies and organisational WLB programmes appeared to be parsimonious. There might be other types of WLB strategies and organisational programmes requiring further exploration. Second, the regression models might be most suitable for the current study, but the explanatory power has been limited by the low adjusted R^2 -values across all nine models. There are other factors yet to be identified that could explain the contributions to employee health, wellbeing and WLB. Perhaps use of qualitative methods in future studies would be more appropriate to draw out specific individual WLB strategies and organisational WLB programmes. Lastly, the data were limited to employees in the Queensland state of Australia, with single-rater and sometimes a single item to measure one variable. This may be an issue in generalisability, therefore limiting the application of the study outcomes to non-Anglo/western contexts, where employees may have different cultural and work/life attitudes. Hence, future study should extend the testing of the conceptual framework to employees in one country or cross-country contexts to verify the survey instrument, model suitability and generalisability. Multiple raters with multiple items should also be used to measure the important constructs such as health, wellbeing and WLB.

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About the authors

Dr Connie Zheng is a Senior Lecturer in Human Resource Management at the Deakin Graduate School of Business, Deakin University, Australia. Her research interests cover human resource innovation, employee turnover, work-life balance, small business management and factors contributing to firm performance. Connie's research outputs have been published in *The International Journal of Human Resource Management*, *Technological Forecasting and Social Change*, *Personal Review* and *Asia-Pacific Journal of Management*. Dr Connie Zheng is the corresponding author and can be contacted at: Connie.Zheng@deakin.edu.au

Dr John Molineux is a Lecturer in Human Resource Management at the Deakin Graduate School of Business, Deakin University, Australia. His research interests cover work-life balance, organisational change and management communication. His work has been published in the *International Journal of Human Resource Management*.

Dr Soheila Mirshekary (BAcc, MAcc, PhD, CPA, CMA, CA) is the Director of the Master of Commerce Program at the Deakin Graduate School of Business, Deakin University, Melbourne. Soheila's research interests focus on corporate governance and business ethics. Her work has been published in refereed journals and conference proceedings. Soheila is the Editorial Board Member for the *International Journal of Business and Development Studies*.

Dr Simona Scarparo (PhD, Msc, Bsc) is a Senior Lecturer in Accounting at the Deakin Graduate School of Business, Deakin University, Australia. Simona's research interests focus on public sector accounting and management. Her work has been published in *Financial Accountability and Management*, *Accounting, Auditing and Accountability Journal*, *Accounting History Review*. Simona is an Associate Editor of the *International Journal of Doctoral Studies*.

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