A cross-cultural study of work/family demands, work/family conflict and wellbeing: the Taiwanese vs British

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Abstract

Purpose – The aim of the research is twofold: to explore relations between work/family demands, work-family conflict (WFC), family-work conflict (FWC) and wellbeing outcomes, and to contrast employees from an individualistic (UK) and a collectivistic (Taiwan) society.

Design/methodology/approach – Heterogeneous samples of full-time employees in Taiwan and UK were surveyed using structured questionnaires.

Findings – For both the Taiwanese and British, work demands were positively related to WFC, whereas family demands were positively related to FWC. Both WFC and FWC were negatively related to wellbeing for employees in the two countries. More importantly, it was found that, for British, there was a stronger positive relation between workload and WFC, as well as a stronger positive relation between sharing household chores and FWC than for Taiwanese.

Research limitations/implications – The relatively small sample size and the use of self-report method are limitations of the present study. However, our results have both theoretical and practical implications. It is noted that Western findings regarding work/family issues may not generalize completely to a different cultural context. Consequently, company policies pertaining to work-time and family issues should be re-formulated, taking the core cultural values such as individualism-collectivism into account.

Originality/value – The cross-cultural comparative design is a major thrust of the present study, and the systematic examination of antecedents, moderators, and consequences of WFC and FWC is a rare effort in the field.

Keywords Cross-cultural studies, Work psychology, Job satisfaction, Family, Taiwan, United Kingdom

Paper type Research paper

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The potential impact that work/family issues have on employees, family members, and organizations has already caused a rising interest among researchers based in the developed western countries. For instance, they found that the more time a person spends on the job, the more conflict there is between work and family (Bruck et al., 2002). They also argue that work/family issues are at least as important to organizational functioning as family functioning (Barnett, 1998). Much of the research on these issues has been from the occupational stress perspective, focusing on stressors such as work/family conflict and its effects on strains and wellbeing both at work and at home. A clear connection between work/family stressors and employee strain has now been established (e.g. Allen et al., 2000).

However, work/family issues are only beginning to gain attention in developing societies such as Taiwan, the Republic of China. Taiwan in recent decades has undergone fundamental transformations of industrial structures from labor-intensive to high-tech, as well as rapid social modernization in both work and life styles (Lu et al., 2003; Siu et al., 2002). With the globalization of world economy, and being one of the Asian Tigers, Taiwan has attracted a vast number of multinational companies to invest. In the spirit of free competition, employees in Taipei (the capital of Taiwan) are becoming more than ever exposed to stressful western and industrialized work situations. Mergers and acquisitions, new management styles, retrenchment, job insecurity are now commonly found in the city. With the rising proportion of females in the workforce, more and more Taiwanese people are now caught between the demands of work and family (Hsu et al., 2001), especially as family life is traditionally highly valued in a Chinese society (Hsu, 1985; Lee, 1988). However, as most work/family research has been conducted in predominantly western countries with an Anglo cultural tradition (e.g. Canada, UK and the USA, we cannot be sure that these findings will generalize to the Chinese people who have rather different cultural traditions, societal institutions, and family structures.

Yang et al. (2000) conducted a rear comparative work/family study. They presented a theoretical analysis suggesting that Americans and Chinese will view work and family differently, due in large part to differences in their individualism-collectivism (I-C) values. More recently, Spector et al. (2004) analyzed data collected for a large-scale international collaborative project on work stress, and demonstrated that Anglos showed a stronger positive relation between work hours and work/family stressors than Chinese and Latins. In all three samples work/family stressors related to increased job dissatisfaction and reduced psychological health. We extended the existing work to predict that reactions to work and family demands will differ between employees from a western individualist nation (the UK) and those from a collectivist nation (Taiwan). I-C is a construct well researched in cross-cultural and cross-national studies, and the very few comparative studies of work/family also found support for the explanatory validity of the I-C construct.

**Work/family conflict: a stress perspective**

Work/family conflict (WFC) is by far the most popular work/family constructs being studied within the occupational stress paradigm. Greenhaus and Beutell (1985) defined WFC as “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respects” (p. 77). More recently, researchers have begun to recognize the duality of work/family conflict by considering both directions: work interference with family (WIF) and family interference with work.
(FIW) (Carlson et al., 2000; Frone et al., 1992; Frone, 2003). They asserted that both directions of work/family conflict (WFC and FWC) need to be examined to fully understand the work/family interface. In the present study, we conceptualized work/family conflict (WFC) as conflict due to work interfering with family, and family/work conflict (FWC) as conflict due to family interfering with work. Both WFC and FWC are inter-role conflicts on the work/family interface, the distinction lies in the direction or cause/effect of the conflict.

Carlson et al. (2000) further distinguished three forms of work/family conflict: time-based conflict, strain-based conflict and behavior-based conflict. Consistent with Greenhaus and Beutell (1985) definition, time-based conflict may occur when time devoted to one role makes it difficult to participate in another role; strain-based conflict suggests that strain experienced in one role intrudes into and interferes with participation in another role; and behavior-based conflict occurs when specific behaviors required in one role are incompatible with behavior expectation in another role (Carlson et al., 2000, p. 250). All the three forms are formulated based on the role theory, which conceptualizes conflicts as reflecting incompatible demands on the person, either within a single role or between multiple roles occupied by the individual (Kahn et al., 1964).

However, the behavior-based conflict has been least clearly defined and least supported by research evidence (Carlson et al., 2000). We argue that another form of work/family conflict is the worry-based conflict, which may be more salient than the behavior-based conflict in the modern industrial society. On the one hand, the persistently high unemployment rates in the industrial world have been an inescapable worry for workers. Even in the societies (e.g. Japan, China) where once “job for life” was the social norm, insecurity is now mounting. Surveys have shown that worrying about gloomy job prospects and even losing a job is now common among Taiwanese employees (Lu and Lin, 2002). On the other hand, increasing living costs, marital distress, and parental stress may erode the stability of family life (Lu, in press), causing worries, which interfere with work. We thus defined worry-based conflict in terms of the pervasive and generalized worries experienced in one role intruding into and interfering with participation in another role. In the present study, worry-based conflict replaced behavior-based conflict as the third form in our conceptualization and assessment of WFC and FWC.

Research on WFC has found that this variable influences a variety of outcomes, including psychological well-being, such as depression, marital satisfaction and life satisfaction (Greenhaus and Beutell, 1985; Gutek et al., 1991; Voydanoff, 1988), job satisfaction, organizational commitment, burnout, and turnover (Burke, 1988; Frone et al., 1992; Greenhaus, 1988; Pleck et al., 1980). In a more recent meta-analysis synthesizing research published between 1977 and 1998, Allen et al. (2000) linked WFC to three categories of outcomes: work-related (e.g. job satisfaction), nonwork-related (e.g. life satisfaction), and stress-related (e.g. depression).

Various family-related stressors have been linked to strains. For example, Vinokur et al. (1999) found that a measure of family stress (conflict among family members) and family distress (strength of negative emotional reactions to family members) related to depressive symptoms for American working women. Stress of parental roles was related to suppressed happiness (Lu and Lin, 1998) and inflated psychological symptoms for Chinese workers (Lu, 2004). Similarly, work interference with family was shown to relate to depression and somatic health symptoms (Major et al., 2002). We
thus examined job satisfaction, family satisfaction and overall happiness as outcomes of WFC and FWC. Specifically, we hypothesized that WFC and FWC would be related to well-being, namely job satisfaction, family satisfaction and happiness (H1).

All of these work/family conflict and stressor variables may be the result of both work and family responsibilities that make both emotional and physical demands, and worse, competing with each other for limited personal resources. To fully understand the impact of work/family conflict on employees, antecedents in work and family domains need to be examined simultaneously.

Work demands
One of the major causes of work/family stressors has to do with not having insufficient time to dedicate to both domains (Greenhaus and Beutell, 1985). Several studies have found that working hours are positively related to WFC, although these relations are generally weak (Bruck et al., 2002; Burke et al., 1980; Eagle et al., 1997; Major et al., 2002; Wallace, 1999; Yang et al., 2000). Working overtime and shift work are also related to WFC (Pleck et al., 1980). It seems that working hours and quantitative workload as important indicators of work demands may be antecedents of WFC. As past research showed that domain-specific antecedents were related to different directions of work/family conflict (Adams et al., 1996; Frone et al., 1997; Thomas and Ganster, 1995), working hours and workload can also be expected as antecedents of FWC. However, no consistent relation of work demands with strains has been found (Major et al., 2002; Sparks et al., 1997). Specifically, we hypothesized that work demands would be related to WFC and FWC (H2). However, no direct relation of work demands with wellbeing was expected.

Family demands
Family demands mainly involve caring for children for young and middle-aged employees. The number of children and life stages of children (commonly age of the youngest child) are rather objective indicators of the level of family demands (Rothausen, 1999). For example, past research has shown that married employees experienced higher FWC than their single counterparts, and parents experienced higher FWC than non-parents (Herman and Gyllstrom, 1977). Furthermore, parents with young children experienced higher FWC than those with grown-up children (Pleck et al., 1980; Beutell and Greenhaus, 1980).

Household maintenance is yet another aspect of family responsibilities, especially salient in societies with high rates of female employment and dual career families. The problem of having to shoulder most of the household chores while holding a job is acute for working women, not the least professionals (Noor, 1995). In a survey of 1316 Taiwanese working women, "having too many household chores to do" tops the list of various role stressors (Fong, 1992). However, as a marital alliance, more and more is expected of husbands to share the responsibilities of family care. Keith and Schafer (1980) noted that husbands’ working hours (less time allowance for home care) was positively related to wives’ FWC. Similarly, husbands of female managers or professionals experienced higher FWC (Greenhaus and Kopelman, 1981), presumably because these women devoted more time to career thus forcing their spouses to share more home care responsibilities.

As a whole, existing research has established connections between family demands (i.e. number of children, age of the youngest child, sharing of household chores,
working spouses) and FWC. However, no consistent direct connection has been established between family demands and strains (Major et al., 2002; Noor, 1999). Specifically, we hypothesized that family demands would be related to WFC and FWC (H3). Again, no direct relation of family demands with well-being was expected.

**WFC and FWC in a cultural context**

As pointed out by Spector et al. (2004), most studies on work/family issues to date have been conducted in predominantly Anglo countries (Canada, UK and the USA) and other western countries that share a number of important characteristics in terms of economic development, family structure and most importantly perhaps, cultural individualism as opposed to collectivism. The above cited authors have also extensively reviewed the limited number of work/family studies outside of individualist countries, mostly in Asia, noting that these studies merely applied western ideas about WFC and similar constructs and studied a rather small range of variables. In Hong Kong, Japan, and Singapore, researchers mostly found a nonsignificant relation between WFC and strains (e.g. Aryee et al., 1999), a significant relation between family demands and FWC, but not to strains (Matsui et al., 1996). These inconsistencies in research results between the western and Asian countries may suggest both broad cultural differences and more refined mechanisms through which work and family demands generate WFC/FWC and consequently various forms of strains.

I-C is a construct well researched in cross-cultural studies and the very limited number of comparative studies of work/family found support for it. The core of cultural individualism is the supremacy of individual goals (Triandis, 1995), emphasizing personal independence and autonomy (Markus and Kitayama, 1991). In contrast, the core of cultural collectivism is the priority of group goals over individual preferences (Triandis, 1995), emphasizing interpersonal connectedness and role obligations (Markus and Kitayama, 1991).

Yang et al. (2000) argued that I-C is an important variable in the work/family domain. Valuing personal achievement through work more than fulfilling one's family obligations, the individualists tend to perceive the work and family domains as exerting competing demands for limited personal resources, such as time and energy (Greenhaus and Beutell, 1985). In a way, they live to work, regarding personal accomplishment as prerequisite for the meaning in life and personal happiness (Lu and Gilmour, 2004). Since they view the needs of the self and the family as distinct, they are prone to experience conflict when there are demands made by both. There is a tendency for individualists to perceive time at work as preventing them from tending to their family (Brett and Stroh, 2003). Similarly, they will perceive time spent at fulfilling one's family obligations as hindering their advancement at work. As a result, when work demands are high, individualists will experience more WFC; and when family demands are high, they will experience more FWC than are collectivists.

In collectivist societies, people’s focus is on the family’s welfare (Triandis, 1995). Work is seen not as a means of enhancing the self, but as a means of supporting the family. Collectivists thus work to live, regarding family prosperity as prerequisite for the meaning in life and personal happiness (Lu and Gilmour, 2004). For example, the Chinese people traditionally view work as contributing to family welfare instead of competing with it (Redding, 1993). Since collectivists are less inclined to view home and work as independent domains, they are more immune to experience conflict when there
are demands made by both (Ishii-Kuntz, 1994). In other words, collectivists will tend to view time spent at work as one way of contributing to the family welfare, and similarly, time spent at fulfilling one’s family obligations as a legitimate even socially approved way of living. As a result, even when work demands are high, collectivists will experience less WFC; and when family demands are high, they will experience less FWC than are individualists.

While Yang et al.’s (2000) paper compared PR China with the US and Spector et al.’s (2004) study compared a much wider range of Anglo countries with China and Latin American countries, they both included very limited number of work/family variables and strains. Specifically, Yang et al. (2000) study included only WFC not FWC, whereas Spector et al.’s (2004) study focused only on the relation between work hours and work/family pressure (neither WFC nor FWC was assessed). Extending these previous work, and basing on the above theoretical analysis and empirical evidence, we expected that in comparing people from individualist versus collectivist countries, I-C at the cultural-level will moderate the relation between work/family demands and WFC/FWC. Specifically, we hypothesized that nation will moderate the relation between work/family demands and WFC/FWC (H4). It must be stated that we did not explicitly measure I-C in the present study; however, Oyserman et al.’s (2002) recent seminal review on the I-C literature has provided unequivocal evidence that Chinese are high on collectivism and low on individualism, while British are low on collectivism and high on individualism. Thus, it should be reasonable to assume Taiwanese as the representatives of cultural collectivism and British as the representatives of cultural individualism.

Method
Participants
The original plan was to sample full-time employees broadly from multiple companies to represent as wide a variety of sectors/organizations/positions as possible. Under the constraints of time and resources, data were collected using a variety of methods in Taiwan and UK. For example, some participants were working adults taking college advanced courses who were recruited in classes; some were recruited through personal contacts; and some were members of professional organizations who were contacted and asked to participate. Consequently, the valid Taiwanese sample was composed of 220 participants, and the British sample had 103 participants.

The Taiwanese sample was 62.3 percent male, with a mean age of 38.13 (standard deviation = 8.15), and mean job tenure of 8.42 years (standard deviation = 7.03 years). Over half of them (66.1 percent) were managers of various levels. The majority (76.3 percent) was married; 81.4 percent had children, and 84.2 percent had a spouse working. The British sample was 29.1 percent male, with a mean age of 40.68 (standard deviation = 12.02), and mean job tenure of 7.66 years (standard deviation = 6.40 years). Over half (57.4 percent) were managers of various levels. Most (65.7 percent) were married, 70.3 percent had children, and 85.7 percent had a partner working.

Measures
A questionnaire was administered that contained mainly four parts as below:

1. Work demands. First, working hours: Respondents were asked how many hours they worked in a typical week. We excluded five outliers in the Taiwanese sample, and two in the British sample. Second, workload: The Quantitative
Workload Inventory (Spector and Jex, 1998) consisted of five items tapping personal perceptions regarding work pace and volume. Four-point rating scales were used, with high scores representing high levels of workload. The internal consistency of this scale was 0.79 in both samples.

(2) **Family demands.** The number of children living in the home and the age of the youngest child were asked. Asking participants to objectively estimate their time spent doing household chores has been shown to be rather unreliable (Noor, 1999), instead we asked our participants to report their subjective perceptions regarding the fairness of sharing housework, coded “sharing too little” = 1, “sharing about the reasonable amount” = 2, and “sharing too much” = 3. Thus a high score represents a high level of family demands in terms of household chores. We also enquired whether participants had a working spouse/partner (no = 1, working part time = 2, working full time = 3). Thus a high score represents a high level of family demands in terms of having to contribute more to home care due to having a working spouse.

(3) **WFC and FWC.** To correspond to our conceptualization of WFC/FWC encompassing three different forms and dual direction, four subscales from the Work-Family Conflict Scale (Carlson et al., 2000) were adopted. These 12 items measure time-based and strain-based WFC/FWC. Six new items were written to measure worry-based WFC/FWC using a similar format. Sample items are “Instability at work interferes with my family life” (WFC), and “lack of control at home impacts negatively on my work” (FWC). Four-point rating scales were used for all 18 items (1 = strongly disagree, 4 = strongly agree). As including all three forms of conflict was mainly to ensure conceptual comprehensiveness, rather than assuming that they would have differential effects, only total scores were computed by aggregating the nine WFC and nine FWC items. Thus high scores represent high levels of WFC or FWC. The internal consistency of the WFC scale was 0.84 and 0.90 in the Taiwanese and British samples. The internal consistency of the FWC scale was 0.89 and 0.92 in the two samples.

(4) **Wellbeing.** Participants were asked to rate their job satisfaction on two questions: “In general, I like working here” and “All in all, I am satisfied with my job” (1 = disagree very much, 4 = agree very much). Scores were aggregated, with high ones representing high levels of job satisfaction. (2) Participants were also asked to rate their family satisfaction on two questions: “My family life is very enjoyable” and “All in all, I am satisfied with my family” using the same scales. Scores were aggregated, with high ones representing high levels of family satisfaction. (3) Overall happiness was measured with the ten-item brief version of The Happiness Inventory (Lu et al., 2001). For each item, participants were instructed to choose one statement from a set of four (coded 0 for the statement representing the lowest level of happiness, and 3 for the statement representing the highest level). Both affective (positive emotions) and cognitive (global life satisfaction) aspects of subjective well-being are tapped and high scores represent high levels of happiness. The internal consistency of this scale was 0.90 and 0.84 in the Taiwanese and British samples.
Single questions asked gender (coded male = 1, female = 2), age, tenure on the job, rank (coded employees = 1, managers = 2), and marital status (coded married = 1, not married = 2).

**Results**

**Within-cultural analysis**

Pearson correlation analyses were conducted separately in the Taiwanese and British samples among all the research variables. As can been seen in Table I, for the Taiwanese, both WFC and FWC negatively correlated with job satisfaction, family satisfaction and happiness. Working hours and workload positively correlated with WFC. Age of the youngest child negatively correlated with both WFC and FWC. Sharing household chores positively correlated with WFC. The pattern of correlation for the British sample was largely similar with fewer significant results though. This is probably due to the smaller sample size. The overall picture is that WFC and FWC was related to wellbeing, hence our $H1$ was tentatively supported. Furthermore, work demands were related to WFC but not FWC, hence our $H2$ was partially supported. Some of the family demands were related to WFC and FWC; hence our $H3$ was again partially supported.

A more stringent test of these hypotheses was using the hierarchical multiple regression technique. By regressing WFC and FWC on work demands and family demands, personal background variables (i.e. gender, age, marital status, rank) were entered into the equation first to control for their possible contributions. For parsimony, the analysis was repeated taking out insignificant variables until all variables remained in the final equation were significant predictors. By regressing wellbeing outcomes on WFC and FWC, the same set of personal background variables were entered at the first step, followed by work demands and family demands at the second step. The same procedure for streamlining the models was followed.

As presented in Table II, for both the Taiwanese and British, work demands and family demands were positively related to WFC. However, only family demands were positively related to FWC in both samples. Hence, our $H2$ and $H3$ were partially supported. Regarding wellbeing, WFC was negatively related to all three outcomes for the Taiwanese, whereas FWC was related to family satisfaction only. For the British, WFC was related to work satisfaction only, whereas FWC was related to family satisfaction only. Neither WFC nor FWC was related to happiness. Hence, our $H1$ was also partially supported.

**Cross-cultural analysis**

To obtain an overall picture of possible cross-cultural differences on our study variables, we conducted a 2 (gender) × 2 (nation) ANOVA on work demands, family demands, WFC, FWC and well-being. As presented in Table III, there were many cross-cultural differences, whereas gender differences and significant interactions were few. Regarding work demands, the Taiwanese worked longer hours than British participants. Males also worked longer hours than females. British females worked the fewest hours and they also reported the lowest workload. Regarding family demands, the Taiwanese had younger children at home compared to British parents. The Taiwanese were more likely to have a working spouse. However, The British reported that they shared too much household chores. Not surprisingly, females in both countries felt that they shared too many household chores. Overall, the Taiwanese
<table>
<thead>
<tr>
<th>Variables</th>
<th>Taiwanese Mean</th>
<th>British mean</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Working hours</td>
<td>50.68</td>
<td>8.54</td>
<td>37.53</td>
<td>15.05</td>
<td>1.00</td>
<td>0.35</td>
<td>***</td>
<td>-0.16</td>
<td>-0.10</td>
<td>-0.28</td>
<td>**</td>
<td>-0.19</td>
<td>0.37</td>
</tr>
<tr>
<td>2. Workload</td>
<td>15.20</td>
<td>2.24</td>
<td>14.44</td>
<td>3.39</td>
<td>0.34</td>
<td>***</td>
<td>1.00</td>
<td>0.09</td>
<td>-0.11</td>
<td>-0.20</td>
<td>*</td>
<td>-0.15</td>
<td>0.55</td>
</tr>
<tr>
<td>3. No. of children</td>
<td>1.49</td>
<td>0.94</td>
<td>1.32</td>
<td>1.09</td>
<td>0.01</td>
<td>0.10</td>
<td>1.00</td>
<td>0.18</td>
<td>-0.18</td>
<td>0.03</td>
<td></td>
<td>-0.08</td>
<td>-0.09</td>
</tr>
<tr>
<td>4. Age of the youngest child</td>
<td>9.00</td>
<td>6.90</td>
<td>12.74</td>
<td>9.64</td>
<td>-0.01</td>
<td>0.02</td>
<td>0.19</td>
<td>*</td>
<td>1.00</td>
<td>-0.01</td>
<td>-0.30</td>
<td>*</td>
<td>-0.32</td>
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<tr>
<td>5. Household chores</td>
<td>1.28</td>
<td>0.42</td>
<td>1.50</td>
<td>0.39</td>
<td>-0.13</td>
<td>-0.06</td>
<td>-0.05</td>
<td>-0.03</td>
<td>1.00</td>
<td>0.25</td>
<td>*</td>
<td>0.05</td>
<td>0.36</td>
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<tr>
<td>6. Working spouse</td>
<td>1.84</td>
<td>0.37</td>
<td>1.86</td>
<td>0.35</td>
<td>-0.13</td>
<td>-0.14</td>
<td>-0.13</td>
<td>-0.06</td>
<td>0.25</td>
<td>***</td>
<td>1.00</td>
<td>0.15</td>
<td>0.02</td>
</tr>
<tr>
<td>7. WPC</td>
<td>21.87</td>
<td>4.23</td>
<td>19.17</td>
<td>6.54</td>
<td>0.29</td>
<td>***</td>
<td>0.31</td>
<td>***</td>
<td>0.02</td>
<td>-0.32</td>
<td>***</td>
<td>0.21</td>
<td>**</td>
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<tr>
<td>8. FWC</td>
<td>17.62</td>
<td>3.86</td>
<td>13.70</td>
<td>4.97</td>
<td>0.11</td>
<td>-0.08</td>
<td>0.09</td>
<td>-0.19</td>
<td>*</td>
<td>0.10</td>
<td>0.09</td>
<td>0.37</td>
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<tr>
<td>9. Work satisfaction</td>
<td>5.76</td>
<td>1.02</td>
<td>6.13</td>
<td>1.20</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.25</td>
<td>***</td>
<td>0.39</td>
<td>***</td>
<td>0.04</td>
<td>0.03</td>
<td>-0.29</td>
</tr>
<tr>
<td>10. Family satisfaction</td>
<td>6.28</td>
<td>1.05</td>
<td>6.73</td>
<td>1.08</td>
<td>-0.02</td>
<td>0.06</td>
<td>0.03</td>
<td>0.21</td>
<td>*</td>
<td>-0.08</td>
<td>0.06</td>
<td>-0.24</td>
<td></td>
</tr>
<tr>
<td>11. Happiness</td>
<td>14.97</td>
<td>4.85</td>
<td>15.06</td>
<td>4.84</td>
<td>-0.03</td>
<td>0.11</td>
<td>0.10</td>
<td>0.39</td>
<td>***</td>
<td>-0.04</td>
<td>0.03</td>
<td>-0.39</td>
<td></td>
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</tbody>
</table>

Note: *p < .05, **p < .01, ***p < .001. The upper triangle is the correlation matrix for the British sample, the lower triangle is the correlation matrix for the Taiwanese sample. Household chores: 1 = too little or about the reasonable amount, 2 = too much. Working spouse: 1 = spouse not working, 2 = spouse working.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Taiwanese Predictors</th>
<th>β</th>
<th>$R^2$</th>
<th>$R^2$</th>
<th>F</th>
<th>British Predictors</th>
<th>β</th>
<th>$R^2$</th>
<th>$R^2$</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>WFC</td>
<td>+ Rank</td>
<td>−0.20*</td>
<td>0.03</td>
<td>0.03</td>
<td>11.18***</td>
<td>+ Age of youngest child</td>
<td>−0.25*</td>
<td>0.41</td>
<td>0.41</td>
<td>15.59***</td>
</tr>
<tr>
<td></td>
<td>+ Working hours</td>
<td>0.19*</td>
<td>0.28***</td>
<td>0.31</td>
<td></td>
<td>Workload</td>
<td>0.51***</td>
<td></td>
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Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Rank: 1 = employees, 2 = managers; Gender: 1 = male, 2 = female; Working spouse: 1 = spouse not working, 2 = spouse working.
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**Note:** *p < 0.05, **p < 0.01, ***p < 0.001. Gender: 1 = male, 2 = female. Nation: 1 = Taiwan, 2 = UK. Working spouse: 1 = spouse not working, 2 = spouse working.
tended to report greater work demands and family demands (having young children to care for and a working spouse) than the British.

Regarding work/family conflict and wellbeing, the pattern was rather consistent in the direction that the Taiwanese fared worse than the British: they reported greater WFC and FWC, also lower work and family satisfaction. Though there was no significant main effect of gender on these variables, British males did report the lowest levels of FWC.

Our $H_4$, that region would moderate the relation between work/family demands and WFC/FWC, was tested with a series of moderated regressions (see Table IV). In all the analyses, we coded nation as 1 for Taiwan and 2 for the UK. We entered four variables at the first step as controls: gender, age, marital status (married vs unmarried), and rank (employees vs managers). The main variables of interest were work demands, family demands, nation, the product of work demands and nation, family demands and nation, with WFC or FWC as the criterion. A total of six moderated regressions (two pairs of work demands-nation for WFC, four pairs of family demands-nation for FWC) were conducted, and two yielded significant results as summarized in Table IV.

Both of the overall regressions were significant ($F(7, 293) = 17.16, p < 0.001, R^2 = 0.29$ for WFC, $F(7, 291) = 11.97, p < 0.001, R^2 = 0.25$ for FWC), and both of the product terms were significant. The slope of the line relating workload to WFC was 0.55 for the British sample and 0.31 for the Taiwanese sample, thus supporting our hypothesis that there would be a larger positive relation between work demands and WFC for the individualist British sample than for the collectivist Taiwanese sample. The slope of the line relating household chores to FWC was 0.36 for the British sample and 0.10 for the Taiwanese sample, thus also supporting our hypothesis that there would be a larger positive relation between family demands and FWC for the individualist British sample than for the collectivist Taiwanese sample. So far, $H_4$ was partially supported.

Discussion
The crucial impact of work/family issues on the wellbeing of employees, their families, and their organizations has been recognized and responded with growing amount of research in this area in the western countries. However, very few studies have explored cross-cultural differences, and most studies that have been conducted outside of territories of the Anglo tradition have not been comparative. Our study systematically examined work/family demands as antecedents, and personal wellbeing as consequences of WFC/FWC. More importantly, we compared results in two distinct cultural groups: the collectivist Taiwanese and the individualist British. We found that some results generalize nicely, while others produced differences.

We noted that across cultures, WFC demonstrated a consistent relationship with work satisfaction whereas FWC demonstrated a consistent relationship with family satisfaction (see Table II). Hence, the western research strategy of focusing on both work-related outcomes (e.g. work satisfaction) and non-work-related outcomes (e.g. family satisfaction) (Allen et al., 2000) does seem to perform well in the Taiwanese context.

Similarly, work demands were found to predict WFC across cultures, though the objective working hours seems vital for the Taiwanese whereas the subjective workload seems crucial for the British (see Table II). The fact that Taiwanese worked ten hours longer (mean = 50.42) than the British (mean = 40.21) may explain this
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Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Gender: 1 = male, 2 = female. Marital status: 1 = married, 2 = not married. Rank: 1 = employees, 2 = managers. Nation: 1 = Taiwan, 2 = UK. Household chores: 1 = too little or about the reasonable amount, 2 = too much.
differential result. Traditionally, Taiwanese workers are expected to put job before family and working long hours is a show of diligence, which is a very highly rated virtue. In recent years, persistent economic depression and widespread downsizing forced many employees to "voluntarily" work overtime to sustain a satisfactory level of performance and to ensure job security. All of these make the issue of working hours rather salient for our Taiwanese workers.

We have also found that family demands predicted FWC across cultures. Age of the youngest child and sharing of household chores were two most salient aspects of family demands for both Taiwanese and the British. These results suggest that western findings of childcare (Pleck et al., 1980; Beutell and Greenhaus, 1980) and home maintenance (Greenhaus and Kopelman, 1981) being the important aspects of family life interfering with work can be generalized to the Chinese context.

Overall, our results suggest that the main nexus of work/family demands and WFC/FWC, WFC/FWC and wellbeing are universal for workers in different cultural contexts. In other words, the general theoretical framework of the western work/family research can be applied to a large extent to the Taiwanese context. However, more detailed differential patterns should not be overlooked, as they may be embedded in the specific cultural milieu.

For example, rank was a significant predictor of WFC for the Taiwanese (see Table II). Compared to non-managerial employees, Taiwanese managers were less likely to experience WFC. Western researchers generally viewed managers as a high risk group for WFC, as they are often asked to be available on a "24/7" basis in today's global workplace (Spector et al., 2004), situations in a Taiwanese society though are somewhat different. As a manifestation of the Chinese patriarchal culture, research has found that in most Taiwanese organizations, regardless of size and sectors, authoritarian and paternalistic practices still prevail (Redding and Casey, 1976; Lu et al., 1999). With great power distance (Hofstede, 1994), Taiwanese managers enjoyed far more privileges such as job autonomy and discretion, flexible work time and schedules, sufficient support and logistics than ordinary workers. Although responsibilities are heavier for the managers, these are burdens happily borne for their inherent social approval and tangible rewards. Furthermore, "work involvement" is another factor distinguishing managers with their subordinates. If time is willingly spent at work, long hours may less likely cause conflictual feelings and pressure; however, when people are "forced" to work more hours than they want, WFC is more likely to occur. As argued by Barnett et al. (1999), workers' motivation or commitment to the job may be crucial here. Managers are found to possess strong intrinsic work motivations (Lu and Lin, 2002) and tend to view time spent at work as efforts at advancing their careers and personal ambitions (Brett and Stroh, 2003). It is not surprising then Taiwanese managers with greater job autonomy and stronger work commitment tend to experience lower levels of WFC. This result also cautions us to pay more attention to the needs of ordinary employees whenever doing research on work/family issues or introducing organizational interventions targeting these issues in a hierarchical society such as the Taiwanese one.

The most important cross-cultural difference we found was the moderation effects of I-C. Our hypothesis, based on the theorizing of Yang et al. (2000), was that there would be stronger relations between work demands and WFC, family demands and FWC in an individualist society (UK) than among collectivists (Taiwanese). Moderated regression results supported this hypothesis in cases of
workload and household chores (see Table IV). Our theory presumes that individualists view the needs of the self and the family as distinct, thus perceiving time and energy at work as competing with their duties to family, and vice versa. As a result, when work demands are high, individualists will experience more WFC; and when family demands are high, they will experience more FWC than are collectivists. This is apparently not the case in Taiwan.

Our theoretical explanation for these cultural moderation effects concerns core values of I-C, we nonetheless cannot completely rule out alternative accounts. Britain has a much higher average household income and more stringent labor laws on work hours and overtime than the developing Taiwan. Thus it appears less necessary for family survival to take on heavy workloads. Contrarily, in a developing Taiwanese society where living costs are rising fast, working hard is more than just a demonstration of traditional virtue, it is also a necessity for maintaining or improving an acceptable living standard. In fact, an increasing number of people are taking up two jobs in the Taipei city. Similarly, as we stated earlier, the increasing unemployment rate in Taiwan may force workers to protect their jobs by working even harder. Such "devotion" to work will be tolerated by the family as a necessary evil, or even regarded as an insurance for job security. All of these explanations need empirical testing, but seem to be plausible, alternative explanations to I-C.

Our study has made a significant contribution to bridging the gaps of knowledge in work/family issues in a cross-cultural perspective. However, there are methodological limitations, which should be kept in mind in the interpretation of these results. First, our data came from a cross-sectional study, thus no causal conclusions are legitimate, and there is also the concern of possible percept-percept bias. For example, job satisfaction is often considered an outcome of work/family stressors, but it is possible that job satisfaction may act as a cause rather than effect. For instance, those who are satisfied with their jobs might tend to put more time and energy into work, to the detriment of family. Interestingly, for the Taiwanese, but not the British, number of children was positively related to job satisfaction. It thus reminds us once again that the notion of family and work can vary across countries.

Another limitation is that we only managed to compare the Taiwanese with the British due to limited time and resources, thus no conclusions should be drawn concerning other cultural groups. Our results may not even generalize to other Chinese societies, such as the PRC, which has its unique political, economic, and social characteristics (Lu et al., 2003). However, Spector et al. (2004) did compare a much wider range of regions and our results corroborate theirs. Yang et al. (2000) focused on the Chinese in the mainland and the Americans, our results too corroborate theirs. This convergence of results from different data sources and regions is encouraging for promoting work/family studies worldwide, and to a certain extent lessens worries over methodological considerations inherent in a cross-cultural approach. For instance, measurement transportation problems across cultures should not affect factual data such as hours worked per week, number of children and working spouse.

Despite its limitations, this study was able to show that some relations of work/family demands with WFC/FWC and those of WFC/FWC with wellbeing generalize across the individualist and collectivist societies, whereas specificities within each culture remain. It is important to establish the existence of relations among variables as a first stage in research. Future efforts should try a greater variety of methodologies to tease out the exact mechanisms linking work/family demands and
outcomes, including additional sources of data such as coworkers, supervisors, and family members.

Our results have many practical implications for management, especially in multinational companies. For example, the widely practiced policies in reducing work/family stress that have been found to be effective in western societies may not be as effective in a different culture. The flexible work options are found highly effective in reducing WFC (Allen, 2001), however, they may be less meaningful for the Taiwanese. Taiwanese workers may be helped more by reducing the absolute number of long working hours, providing concrete monetary compensation for overtime or a more adequate supply of resources to relief heavy workloads.

Perhaps the more important implication of our study is that one cannot assume that western findings will or will not generalize to culturally dissimilar societies. In the work/family area, we have shown amongst others that a collectivist value orientation may act as a buffer of work/family demands on WFC/FWC experiences. Organizations in collectivist societies need to develop new strategies in resolving the work/family dilemmas taking into account their cultural characteristics, distinct economic situations, social institutions and family structures. For future research in the work/family field, our results are encouraging to show that despite cultural differences in details, the focal relationship between work/family demands and outcomes such as WFC/FWC experiences and well-being holds across nations.

References


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