Educational Research Journal《教育研究學報》, *Vol. 20, No. 2, Winter 2005*

Work-Family Conflict and Its Relationship With Social Support: A Study at Private Educational Institutions in Kuching, Sarawak, Malaysia

Chai-yong Lee
Arang Road Secondary School, Kuching, Sarawak, Malaysia.

Kian-sam Hong
Faculty of Cognitive Science and Human Development
Universiti Malaysia Sarawak

This study examined six aspects of work-family conflict that is time-based, strain-based, and behavior-based of work-influence-family and family-influence-work conflict on 112 full time lecturers/teachers teaching in eight private educational institutions in Kuching. The data was collected using questionnaires. Independent t tests and one-way analysis of ANOVA were used to test for significant differences in the levels of work-family conflict experienced by the lecturers/teachers based on their socio-demographic characteristics. The relationship of social support and work-family conflict was tested using Pearson

Correspondence concerning this article should be addressed to Chai-yong Lee, Sekolah Menengah Kebangsaan Jalan Arang, Kuching, Sarawak, Malaysia. E-mail: leechaiyong@hotmail.com

Correlation Coefficient. Findings showed that the lecturers/teachers experienced moderate levels of work-family conflict. Significant differences on levels of work-family conflict were detected based on independent variables of age group, flexibility of work schedule and working spouse. Administrators' support was negatively related to work-family conflict, but the strength of the relationship was weak. Multiple regression analysis showed that work-family conflict experienced by the lecturers/teachers was most affected by flexibility of work schedule and administrators' support. It is recommended that individuals should seek out administrators' support and find ways to cope with work-family conflict. The administrators should play their roles in creating a family-friendly culture and organization should tailor appropriate interventions to address work-family conflict.

Key words: work-family conflict; social support; private educational institution

Work and family are important parts of a person's life. When work and family are imbalanced, employees' well-being and the quality of life will be affected (Kossek & Ozeki, 1998), causing high-level of stress and reducing their effectiveness at work (Kofodimos, 1993).

Work-family conflict (WFC) is a type of inter-role conflict in which the role demands stemming from one domain (work or family) are incompatible with role demands stemming from another domain (family or work), which have a negative influence on an employee (Greenhaus & Beutell, 1985). There are two directions of WFC, namely, work-influence-family conflict (WIF) and family-influence-work conflict (FIW). WIF occurs when work role expectations interfere with family role expectations, while FIW occurs when family role expectations interfere with work role expectations. Greenhaus and Beutell (1985) propose that WFC takes three forms: time-based conflict, strain-based conflict and behavior-based conflict, which influence WIF and FIW. Time-based conflict occurs when time devoted to one role makes it difficult to engage in another role. For example, working overtime will make a person unable to attend family gathering. Strain-based

conflict occurs when strain experienced in one role intrudes into and interferes with participation in another role. For instance, feeling upset at home will make a person moody at work. Behavioral-based conflict occurs when specific behaviors required in one role are incompatible with behavioral expectation in another role. A case in point is a woman who is kind and tender as a mother at home may not be able to display the same kind of behavior as a police officer at work.

Frone (2000) compares employees who reported experiencing WFC and those that did not, found that the former group were often more likely to experience a clinically significant mental health problem. He found that employees who reported experiencing WIF often were 3.13 times more likely to have a mood disorder, 2.46 times more likely to have an anxiety disorder, and 1.99 times more likely to have a substance dependence disorder. Employees who reported experiencing FIW often were 29.66 times more likely to have a mood disorder, 9.49 times more likely to have an anxiety disorder, and 11.36 times more likely to have a substance dependence disorder.

In Malaysia, several studies conducted on WFC includes Ahmad (1996), Ahmad, Hashim, Isa, & Hamzah (1999), and Noor (2002). In their studies, Ahmad (1996) and Ahmad et al. (1999) used the scale developed by Pleck, Staines, and Lang (1980). In this scale, Pleck et al. (1980) only included excessive work time and schedule conflict dimensions reflecting time-based WIF and fatigue irritability reflecting strain-based WIF. The study conducted by Noor (2002) used the Interaction Strain Scale developed by Parry and Warr (1980), which measured only the strain dimension of WIF and FIW.

Review of Related Literature

Conservation of Resources (COR) Theory

Many WFC study did not base their research on theory (e.g., Frone, Russell, & Cooper, 1992; Gutek, Searle, & Klepa, 1991; Judge, Boudreau, & Bretz, 1994). Some researchers who based their research on theory grounded their conceptual frameworks on role theory (Grandey & Cropanzano, 1999). Role

theory states that experiencing ambiguity and/or conflict within a role will result in an undesirable state. It proposes that multiple roles lead to personal conflict as it becomes more difficult to perform each role successfully, due to conflicting demands on time, lack of energy, or incompatible behaviors among roles (Grandey & Cropanzano, 1999). Furthermore, among the three studies conducted in Malaysia, only Ahmad et al. (1999) tried to relate their findings to the role theory.

In recent years, some researchers such as Grandey and Cropanzano (1999) and Rosenbaum and Cohen (1999) made use of COR Theory (Hobfoll, 1989) to explain the occurrence of WFC. COR Theory considers the extra roles as a resource, and not a cause of role conflict. It explains that multiple roles can be beneficial, and gives reasons why people react when confronted with a conflict. According to Hobfoll (1989), people strive to obtain, retain, and protect that which they value. People work to obtain resources they do not have, retain those resources they possess, protect resources when threatened, and foster resources by positioning themselves so that their resources can be put to best use (Hobfoll, 1998). Hence, major life stressors are likely to have significant impact on resource acquisition and protection. According to Hobfoll (1998), stress occurs when resources are threatened with loss, resources are actually lost, or there is a failure to adequately gain resources following significant resource investment.

Table 1 Types of Resources (adapted from Hobfoll, 1998)

Resources	Characteristics
Object resources	– have a physical presence, such as a home and transportation.
Condition resources	– include being healthy, employment, tenure, seniority, and marriage. – lay a foundation for access to other resources. – act as an important structure for allowing access to or possession of other resources, and often greatly coveted and valued.
Personal resources	– include both skills and personal traits. (a) Personal skill resources include occupational skills, social skills, and leadership ability. (b) Personal trait resources include self-esteem, optimism, self-efficacy and hope.
Energy resources	– include money, credit and knowledge. – derive their value from ability to be exchanged for resources in the other three categories.

Resources include the objects, conditions, personal characteristics, and energies that are either themselves valued for survival, directly or indirectly, or served as a means of achieving these resources (Hobfoll, 1998). Table 1 shows the four types of resources and their characteristics.

Relationships Between Socio-Demographic Variables and WFC

Gender

Very few studies on WFC have examined gender differences in WIF and FIW (e.g., Duxbury & Higgins, 1991; Eagle, Icenogle, Maes, & Miles, 1998; Frone et al., 1992; Gutek et al., 1991), and most studies conducted in the West, as well as in Malaysia, focused mainly on women. Generally, in studies on gender differences, WIF experienced by women is higher than men both in western and eastern countries.

The higher levels of WIF reported by women may be due to factors such as extra workload and family demands on women, especially with the presence of children at home that inevitably increases time and energy demand. Apart from these, societal expectation, behavioral norms (Duxbury & Higgins, 1991) and gender role expectation (Gutek et al., 1991) are the causes of high levels of WIF among women. Societal expectations that viewed men as the breadwinner and women as the homemaker, occur in both western society and eastern culture. Women also view family as their primary obligation and attach more meaning to their parenting role than to their work role. Women spending more time at home or men spending more time at work are consistent with the gender role expectations defined and prescribed by society (Duxbury & Higgins, 1991). Conflict will arise if women spend more time at work or men spend more time at home. Therefore, women will experience more WIF as compared to men.

Most studies conducted reported that both gender have higher levels of WIF as compared to FIW (Aryee, Luk, Leung, & Lo, 1999; Carlson, Kacmar, & Williams., 2000; Eagle et al., 1998; Gutek et al., 1991; Judge et al., 1994; Netemeyer, Boles, & McMurrian, 1996). Several reasons put forward by

researchers include: most workers report that family is more important than work (Netemeyer et al., 1996); some employees are more willing to allow work responsibilities to interfere with family responsibilities (Aryee et al., 1999); and both gender spent more time in paid work than in family work (Gutek et al., 1991). However, there were no differences in relation to FIW experienced by both men and women.

Marital status

According to COR Theory, marital status can be considered as a valued resource. When people get married, more resources can be drawn from spouse (financial resources). Being older, male, married and with fewer children were related to lower levels of stress for almost all relationship. Those who are married or living together have lower levels of FIW and stress (Eagle et al., 1998; Grandey & Cropanzano, 1999). Grandey and Cropanzano found that marital status, number of children at home, and gender explained 26% variance in FIW. Eagle et al. reported that divorced women with children have the highest levels of time-based FIW. However, WFC experienced by those who are still single and without children is thus far under-represented in the WFC literature.

Presence of children and children age groups

Research on WFC especially those that address FIW has identified several factors within the family that correlate to work related activities. Two such factors are the age and number of children staying at home. More children means less valued resources of time and energy. Children at home increase demands, economic hardship, strains in the marriage, and work overload, which may increase feelings of depletion. The age and number of children at home have significant effects on FIW (Eagle et al., 1998, Grandey & Cropanzano, 1999). Working mothers of children 12 years old or younger experienced higher FIW as compared to mothers without children 12 years old or younger (Johnson, 1995, cited in Tatman, 2001). Erickson, Nichols, and Ritter (2000) also reported that high level of burnout was associated with increased absenteeism if employees had children under six living at

home or reported having difficulty with their child-care arrangements. Married women with children experienced higher WFC as compared to those without children (Burke, 1997), while divorced women with children reported the highest level of time-based FIW (Eagle et al.).

Flexibility of work schedule

Work schedule flexibility was defined as the degree of flexibility one perceives in his or her work schedule to handle family/personal responsibilities. Higher levels of perceived work schedule flexibility were related to lower levels of WFC (Hammer, Allen, & Grigsby, 1997; Lee & Choo, 2001), whereas the inflexibility of work schedule can also cause WFC especially WIF (Eagle et al., 1998). However, the effect of FIW is not as great as WIF. For example, Netemeyer et al. (1996) found no relationship between FIW and the number of hours worked per week, but found a significant relationship between WIF and hours worked.

Working spouse

With the increase in women participation in the work force, there is an increase in dual-earning couples. When both husband and wife are working, they place importance on both the development and maintenance of a marriage and family life as well as development and progression of careers. This lifestyle is highly stressful and incurs high demand on time, energy and commitment as compared to families where the man is the sole breadwinner. WFC experienced by dual-earning couples has been found to have a negative association with marital adjustment (Burley, 1995).

Age and level of education

Those who are older would have more valued work resources, such as seniority, tenure, status and income (Grandey & Cropanzano, 1999). With more resources, it is less likely for older workers to experience work stress and WIF. For example, a person with higher income can employ domestic maids to do household chores, which can reduce time, and energy constrains faced at home. However, higher education level was positively related to

FIW (Tatman, 2001). People who acquire higher level of education might land on a job that is more demanding with higher occupational responsibilities and expectations.

Relationships Between Social Support and WFC

Social support refers to perceived support the recipients view as helpful or intended as helpful, and their perceptions on how they are loved, valued, and esteemed by others. It represents the resources available to an individual from other people in their social network (Cohen & Syme, 1985, cited in Willigen & Drentea, 2001). This support is primarily in the form of either emotional support (e.g., listening, providing empathy, giving advice) or instrumental support (e.g., tangible assistance aimed at solving problem, like helping out in household chores and childcare). COR Theory proposes that people that have larger social network and satisfaction with relationships will have access to other valued resources (e.g. transportation, financial aids, higher self-esteem and be more optimistic).

Several researches were conducted to examine the role of social support as a mechanism to reduce WFC (e.g., Ahmad et al., 1999; Carlson & Perrewe, 1999; Nielson, Carlson, & Lankau, 2001; Thomas & Ganster, 1995). According to COR Theory, juggling between work and family will be stressful if the individual did not receive emotional and practical support.

Social support can also influence psychological well-being (Cohen & Wills, 1985; Findler, 2000). Individuals who possess a greater number of relationships with friends, family members, co-workers, and neighbours report less distress and greater positive effect, regardless of their level of stress, than those who possess fewer of these relationships (Cohen & Wills, 1985).

Family social support (FSS)

Lack of family social support was found to be related to higher levels of WFC. Support from family members (Adams, King, & King, 1996), spouse (Aryee et al., 1999; Burley, 1995) especially husband (Matsui, Oshawa, &

Onglatco, 1995; Rosenbaum & Cohen, 1999) and others like in-laws and domestic maids (Lee & Choo, 2001) were related to lower level of WFC. Higher levels of emotional and instrumental support from family could predict lower levels of FIW, and higher levels of WIF could predict lower levels of both emotional and instrumental support from family (Adams et al., 1996).

Husband support helped to buffer the relationship between parental demands and WFC (Matsui et al., 1995). Women who had spousal support were less distressed than women who did not have either of these resources (Rosenbaum & Cohen, 1999). Other sources of support from parents-in-law and parents, childcare centres, and babysitters in assisting household chores and childcare can also help to reduce WFC. Lee and Choo (2001) who conducted a study in Singapore reported that domestic maids accounted for 82.4% of support on household chores and 66.7% support for childcare.

Work social support (WSS)

Work social support covers support from people working together in the workplace. It covers colleagues and administrators. The effects of work-related stress have been found to worsen when there is also a lack of social support and social interaction at work. Research has found that managerial support can lessen employee stress and strain, reduce employee perceptions of WFC (Ahmad et al., 1999; Thomas & Ganster, 1995) especially FIW (Eagle et al., 1998; Nielson et al., 2001) and enhance employee work attitudes like lower levels of absenteeism (Goff, Mount, & Jamison, 1990).

Methodology

Research Design

This study was a survey research, descriptive and correlational in nature, with the use of self-administered questionnaires. It described the extent of WFC among lecturers/teachers and its relationships with socio-demographic characteristics and perceived social support.

Population and Sample

The population of this study comprised of lecturers/teachers from eight private educational institutions in Kuching. This study made use of convenience sampling method. Selection of private educational institutions of study was based on the availability of the institutions during data collection period. The questionnaires were administered to 196 full-time lecturers/teachers in November 2003, and 114 questionnaires were returned showing a response rate of 58.2%.

Instrument

The questionnaire used in this study consisted of two sections. In Section I, respondents' socio-demographic information, namely gender, age, marital status, level of education, annual household income, presence of children, children age groups, flexibility of work schedule, and presence of working spouse was sought.

In Section II, Carlson et al.'s (2000) multidimensional scale was used to assess WFC. The dimensions in WFC were time-based WIF, strain-based WIF, behavior-based WIF, time-based FIW, strain-based FIW, and behavior-based FIW. For each of the items in the WFC scale, respondents were provided with a 5-point Likert scale options, ranging from strongly disagreed to strongly agreed.

Perceived social support from spouse, friends and relatives, supervisor and colleagues was measured with a scale developed by Caplan, Cobb, French, Harrison, and Pinneau (1975). Modification was made to the social support scale by measuring spouse, friends and relatives separately, and the term "supervisor" replaced by "administrators" to suit the present study on private educational institutions.

Pilot survey and reliability of instruments

A pilot survey was conducted in two schools in early October 2003. The reliability of the instrument was shown in Table 2. In general, the reliabilities of both scales are satisfactory and exceeded the conventional level of acceptance of 0.70 (Nunnally, 1978).

Table 2 Reliability of Work-Influence-Family Conflict(WFC) and Social Support Scales

	Cronbach's α
WFC Dimension	
WFC	0.914
WIF	0.869
Time-based WIF	0.799
Strain-based WIF	0.875
Behavior-based WIF	0.718
FIW	0.841
Time-based FIW	0.795
Strain-based FIW	0.889
Behavior-based FIW	0.739
Social support Dimension	
Social support	0.705
FSS	0.723
WSS	0.787

Analysis of Data

The data was analyzed using Statistical Packages for Social Sciences (SPSS) based on the research questions. Table 3 shows the summary of the statistical procedures.

Findings and Discussions

The levels of WFC

Descriptive analysis using mean and percentage was carried out to measure the levels of WFC experienced by the lecturers/teachers as shown in Table 4.

The mean WFC score of 2.763 indicating that the lecturers/teachers in these private educational institutions on average, experienced minor forms of conflict at both workplace and home, with the home producing less conflict than the workplace. Only 24.8% of the respondents felt that they experienced WFC.

Generally, the level of WIF (M = 3.005) was higher than the level of FIW (M = 2.525), which was consistent with most of the WFC research literature in the eastern and western countries (Aryee et al., 1999; Eagle et al., 1998; Gutek et al., 1991; Judge et al.,

Table 3 Data Analysis on Research Questions

Research questions	Analysis procedures
What were the WFC (WIF and FIW) levels of lecturers/ teachers in private educational institutions in Kuching?	Descriptive statistics (mean and percentage) were used for items 1–18. Mean scores of between 1.00 – 2.33, 2.34 –3.66, and 3.67–5.00 were classified as low, moderate and high levels of time-based WIF (for items 1–3), strain-based WIF (for items 4–6), behavior-based WIF (for items 7–9), time-based FIW (for items 10–12), strain-based FIW (for items 13–15), and behavior-based FIW (for items 16–18) respectively. Mean scores for items 1–9, represented the composite measures of WIF while mean scores for items 10–18, were the composite measures for FIW. The mean scores for items 1–18, on the other hand, corresponded to the value for WFC. Similarly, mean scores of between 1.00–2.33, 2.34–3.66, and 3.67–5.00 were classified as low, moderate and high levels of WIF, FIW, and WFC depending on the items concerned.
Were there any differences in the WFC levels based on the lecturers/teachers' demographic characteristics?	Five hypotheses were tested using independent *t* test. Ho: There were no significant differences in the WFC levels between: (a) male and female lecturers/teachers (c) married and unmarried lecturers/teachers (f) lecturers/teachers with children and no children (h) lecturers/teachers with flexible work schedule and no flexiblework schedule (i) lecturers/teachers with working spouse and with no working spouse Four hypotheses were tested using one-way analysis of ANOVA. Tukey's HSD test was conducted to check for the differences when null hypothesis was rejected. Ho: There were no significant differences in the WFC levels between: (b) lecturers/teachers from different age groups (d) lecturers/teachers with different levels of education (e) lecturers/teachers with different annual household income (g) lecturers/teachers with children of different age groups
Was social support related to WFC?	Ho: There was no significant relationship between social support and WFC. Pearson Correlations were used to test the relationship between various aspects of social support (spouse, family, friends, administrators and colleagues) and WFC.
Which aspects of the socio-demographic characteristics most influenced WFC?	A step-wise Multiple Regression was carried out with the dependent variable WFC and the independent variables of socio-demographic characteristics.
Which aspects of the social support most influenced WFC?	A step-wise Multiple Regression was carried out with the dependent variable WFC and the independent variables of social support.

Table 4 Mean, Frequency and Percentage of Lecturers/Teachers with Different Levels of WFC (n = 112)

Work-family conflict	Mean	Strongly disagree	Disagree	%	Neither agree nor disagree	%	Agree	Strongly agree	%
Time-based WIF (item 1 – 3)	3.098	13	111	36.9	72	21.4	110	30	41.7
Strain-based WIF (item 4 – 6)	3.048	9	125	39.9	75	22.3	95	32	37.8
Behavior-based WIF (item 7 – 9)	2.856	12	122	40.1	114	34.1	73	13	25.8
Time-based FIW (item 10 – 12)	2.536	23	176	59.2	79	23.5	50	8	17.3
Strain-based FIW (item 13 – 15)	2.348	37	183	65.5	82	24.4	30	4	10.1
Behavior-based FIW (item 16 – 18)	2.691	11	139	44.6	132	39.9	51	3	16.1
WIF	3.005	34	358	39.0	261	25.9	278	75	35.1
FIW	2.525	71	498	56.4	293	29.1	131	15	14.5
WFC	2.763	105	856	47.7	554	27.5	409	90	24.8

Note. 1.00–2.33 = Low FIW/WIF/WFC
2.37–3.66 = Moderate FIW/WIF/WFC
3.67–5.00 = High FIW/WIF/WFC

1994; Netemeyer et al., 1996). About 35% of the respondents agreed that they suffered from WIF, whereas only 14.5% agreed that they suffered from FIW.

Among the three aspects of WIF, time-based WIF had the highest mean score (3.098). This was indicated by 41.7% of the lecturers/teachers admitting that they suffered higher level of stress due to the time committed at work that interfered with their family life.

Behavior-based FIW had the highest mean score (2.691) among the three aspects of FIW. However, only 16.1% of the respondents said that they suffered from stress as a result of the behaviors required at home were incompatible with the expectation at work.

Differences in WFC Based on Socio-demographic Characteristics

There were no significant differences in the WFC levels of lecturers/teachers based on gender, marital status, the presence or absence of children, children of different age groups, levels of education, and annual household income. However, there were significant differences in the WFC levels among

lecturers/teachers of different age group, with working spouse and flexible working schedule.

Age groups

For the demographic characteristics of age, there were differences for two aspects of WIF, namely time-based WIF ($F = 4.049$, $df = 2/109$, $p = 0.020$) and strain-based WIF ($F = 4.928$, $df = 2/109$, $p = 0.009$) (refer to Table 5).

For the two significant differences in WIF, further Tukey's post hoc tests were carried out. For time-based WIF (Table 6), lecturers/teachers below 26 years old suffered higher WIF ($M = 3.444$) as compared to those in the 26 to 30 age group ($M = 2.819$). For strain-based WIF (refer to Table 6), lecturers/teachers below 26 years of age suffered higher WIF ($M = 3.467$) as compared to the 26 to 30 age group ($M = 2.819$). COR Theory suggests that younger employees may face more stress at work due to limited work resources such as seniority, status, tenure and income (Grandey & Cropanzano, 1999). This study showed that the younger group of lecturers/teachers (age below 26) did experience higher time and energy demand at work which interfered with their family roles. However, the older group of lecturers/teachers, over 30 years old, did not report lower levels of WFC.

Based on Table 7, those below 26 years old were newly married ($M =$ 1.5 years), newly employed ($M = 1.88$ years), and had a small number of children ($M = 0.5$). Probably they need to adjust to their work life due to their limited work experience, and hence developed higher stress and time needed constraints, which interfered with their family life, especially their new familial obligations. On the other hand, those between 26 to 30 years old reported lower time-based and strain-based WIF. They had been working for a longer periods ($M = 4.056$ years) and probably had learned to adjust with the demand of their work-life, and hence reported less stress at work. Those over 30 years old did not report lower time-based and strain-based WIF, probably because of the higher demand from work as they gained more experience ($M = 20.028$ years).

Table 5 One-way ANOVA on WFC Levels Based on Age Groups

Variables	Sources	*SS*	*df*	MS	*F*	Sig.
Time-based WIF	Between groups	7.355	2	3.678	4.049*	0.020*
	Within groups	99.009	109	0.908		
	Total	106.364	111			
Strain-based WIF	Between groups	7.792	2	3.896	4.928*	0.009*
	Within groups	86.176	109	0.791		
	Total	93.968	111			
Behavior-based WIF	Between groups	0.705	2	0.352	0.798	0.453
	Within groups	48.101	109	0.441		
	Total	48.805	111			
Time-based FIW	Between groups	0.672	2	0.336	0.594	0.554
	Within groups	61.630	109	0.565		
	Total	62.302	111			
Strain-based FIW	Between groups	0.533	2	0.266	0.551	0.578
	Within groups	52.665	109	0.483		
	Total	53.197	111			
Behavior-based FIW	Between groups	0.230	2	0.115	0.289	0.749
	Within groups	43.263	109	0.397		
	Total	43.492	111			

*$p < .05$

Table 6 Homogeneous Subsets Based on Age Groups (Tukey's Post Hoc Test)

Age	*N*	Subset	
		1	2
Time-based WIF			
26–30	46	2.819	
> 30	36	3.167	3.167
< 26	30		3.444
Strain-Based WIF			
26–30	46	2.819	
> 30	36	2.991	2.991
< 26	30		3.467

$p < .05$

Table 7 Mean Number of Years Married and Working Experience, and Number of Children Among Lecturers/Teachers of Different Age Groups

Age groups	Years married	Working experience	Number of children
Below 26	1.50	1.880	0.50
26–30	2.33	4.056	0.72
Above 30	16.58	20.028	2.26

Working spouse

Based on Table 8, lecturers/teachers with working spouse showed substantially higher strain-based WIF ($t = -4.63$, $df = 7.181$, $p = 0.002$), higher behavior-based WIF ($t = -3.269$, $df = 5.598$, $p = 0.019$), higher

time-based FIW ($t = -3.269$, $df = 18.869$, $p = 0.000$), and higher strain-based FIW ($t = -3.393$, $df = 16.943$, $p = 0.003$). These findings were consistent with findings of previous studies that dual-earning couples were more likely to experience WIF (Duxbury & Higgins, 1991) and FIW (Eagle et al., 1998).

Lecturers/teachers with working spouse suffered higher strain-based WIF and FIW, suggesting that lecturers/teachers from dual-earning families suffered from strain experienced in both workplace and family that interfered with their work and family life. They also reported higher level of time-based FIW, which suggested that time spent in family roles had interfered with their work. Higher behavior-based WIF experienced by the lecturers/teachers with working spouse revealed that behaviors required at workplace were not applicable at home. Hence, in dual-earner families, partners who were also engaged in active careers were likely to be unwilling and/or unable to assume greater household and parenting responsibilities.

Lecturers/teachers with non-working spouse, on the other hand, had lower level of WFC. The non-working spouse played an important role as homemaker, doing the household chores and child caring, leaving their spouse to concentrate on their career fully. Hence, lecturers/teachers with non-working spouse may feel less stress as compared to those dual-earning lecturers/teachers. They were also less involved in family activities like

Table 8 Independent *t* tests Results on WFC Based on Working/Non-Working Spouse

Variables	Spouse	*N*	*M*	*SD*	*t*	*df*	*p*
Time-based WIF	Non working	4	2.667	0.943	−0.706	3.558	0.523
	Working	47	3.014	0.966			
Strain-based WIF	Non working	4	2.083	0.319	−4.630	7.181	0.002*
	Working	47	3.007	0.821			
Behavior-based WIF	Non working	4	2.167	0.333	−3.269	5.598	0.019*
	Working	47	2.805	0.697			
Time-based FIW	Non working	4	1.917	0.167	−5.329	18.869	0.000*
	Working	47	2.653	0.755			
Strain-based FIW	Non working	4	1.917	0.167	−3.393	16.943	0.003*
	Working	47	2.369	0.713			
Behavior-based FIW	Non working	4	2.417	0.500	−1.482	4.025	0.212
	Working	47	2.816	0.684			

*$p < .05$

household chores and child-caring, and hence reporting lower levels of behavior-based WIF.

Flexibility of Work Schedule

Results of independent t tests on WFC based on flexibility of work schedule, indicating that there were differences in all three aspects of WIF for lecturers/teachers with flexible work schedule and non-flexible work schedule (Table 9). Inflexible work schedule interfered with family activities causing WIF to occur.

Table 9 Independent *t* tests Results on WFC Based on Flexibility of Work Schedule

Variables	Flexiblility of work schedule	*N*	*M*	*SD*	*t*	*df*	*p*
Time-based WIF	Flexible	89	2.970	0.929	–2.643	31.874	0.013*
	Not flexible	23	3.594	1.030			
Strain-based WIF	Flexible	89	2.948	0.870	–2.098	30.744	0.044*
	Not flexible	23	3.435	1.022			
Behavior-based WIF	Flexible	89	2.766	0.601	–2.492	29.043	0.019*
	Not flexible	23	3.203	0.783			
Time-based FIW	Flexible	89	2.506	0.730	–0.776	31.471	0.443
	Not flexible	23	2.652	0.826			
Strain-based FIW	Flexible	89	2.337	0.641	–0.277	28.306	0.784
	Not flexible	23	2.391	0.880			
Behavior-based FIW	Flexible	89	2.633	0.611	–1.875	32.952	0.070
	Not flexible	23	2.913	0.645			

*$p < .05$

This finding was in line with studies conducted by Eagle et al. (1998) and Netemeyer et al. (1996). In general, lecturers/teachers whose work schedules were not flexible had higher time-based WIF ($t = –2.643$, $df = 31.874$, $p = 0.013$), strain-based WIF ($t = –2.098$, $df = 30.744$, $p = 0.044$), behavior-based WIF ($t = -2.492$, $df = 29.043$, $p = 0.019$).

Relationships Between Social Support and WFC

Based on Table 10, WSS was negatively related to strain-based WIF, showing that when WSS is high, strain-based WIF is low and vice versa. The respondents who perceived higher satisfaction with the support provided by people working with them in the workplace, experienced lower levels of

strain experienced at work. On the other hand, those who perceived lower satisfaction with the support offered suffered from higher level of strain. The strength of relationship between WSS with strain-based WIF, however, was weak ($r = -0.199$).

FSS was not related to WFC as shown in Table 10. Apparently, the support from family members (spouse, friends and relatives) was not related to the experience of conflict both at home and at workplace. These findings contradicted the results reported in the study by Adams et al. (1996) in which respondents with higher levels of WIF had lower levels of FSS, and vice versa.

Administrators' support was negatively related to time-based WIF and strain-based WIF (Table 11). The respondents who perceived higher satisfaction of the support offered by the administrators experienced a lower level of stress, as a result of the demand of time and energy at workplace, which could interfere with family-life. The strength of relationships between administrators' support and the two aspects of WIF, however, were weak ($r = -0.200$ and $r = -0.214$). Colleagues' support was not significantly related to WFC. These findings were consistent with the results reported in

Table 10 Pearson Correlations between Social Support and WFC

	Social Support	
	Family	Work
Time-based WIF	−0.078	−0.170
Strain-based WIF	−0.122	−0.199*
Behavior-based WIF	−0.037	−0.062
Time-based FIW	−0.028	−0.187
Strain-based FIW	−0.015	−0.075
Behavior-based FIW	0.086	−0.136

*$p < .05$

Table 11 Pearson Correlation on Work Social Support and WFC

	Colleagues	Administrators
Time-based WIF	−0.099	−0.200*
Strain-based WIF	−0.139	−0.214*
Behavior-based WIF	−0.025	−0.082
Time-based FIW	−0.164	−0.173
Strain-based FIW	−0.093	−0.046
Behavior-based FIW	−0.126	−0.119

*$p < .05$

the study by Ahmad et al. (1999) that supervisor support was significantly related to WFC but not co-worker support.

The Dominant Socio-demographic and Social Support Variables Affecting WFC

To determine which of the socio-demographic variables were the contributory factors to WFC, a multiple linear regression analysis was carried out. The results indicated that flexibility of work schedule was the significant contributor to the WFC (Table 12). However, flexibility of work schedule only contributed 18% of the variance in the WFC. The administrators' support was the significant contributor to the WFC as shown in Table 12. However, administrators' support only contributed 4.2% of the variance in the WFC.

Table 12 Stepwise Multiple Regression Analysis Based on Socio-Demographic and Social Support Variables on WFC

Sources	*SS*	*df*	*MS*	*F*	*p*
A. Socio-demographic variables					
Regression	3.141	1	3.141	8.578*	0.006
Residual	14.279	39	0.366		
Total	17.419	40			
B. Social support variables					
Regression	1.372	1	1.372	4.735*	0.032
Residual	31.296	108	0.290		
Total	32.669	109			

*$p < .05$

Note. Dependent variable: WFC

A. Independent variables: age, gender, levels of education, marital status, presence of children, children age groups, working spouse, flexibility of work schedule, and annual household income.
Independent variable in equation: flexibility of work schedule
Multiple *R* Square = 0.18

B. Independent variables: spouse support, friends' support, relatives' support, administrators' support, colleagues' support
Independent variable in equation: administrators' support
Multiple *R* Square = 0.042

Conclusion

Implications of the Study

It can be summarized that respondents with different characteristics experi-

enced different aspects of WFC. Hence, for organizations to develop effective work-family policies, employees who are experiencing different types of conflict should be identified.

Several strategies can be employed by the lecturers/teachers to manage WFC. Employees can seek out the help of administrators to gain as much support and information as possible in developing work-related issues. Lecturers/teachers with high levels of WFC can learn coping skills for balancing work and family obligations such as stress management, time management, problem-solving, conflict management, and negotiation skills.

The administrators can create family-friendly culture by providing open communication and practising family-friendly leadership style. The administrators must regard handling family issues as legitimate part of their role, as it will affect job performance. The private educational institutions can implement various programmes such as flexi-time, event/seasonal scheduling, compressed workweek, job sharing, and reduced work hours. It may be beneficial for these private educational institutions to implement programmes that address administrators' support on work and family variables such as sensitivity training. This type of training would facilitate more open discussions and greater support for individuals who strive to balance work and family responsibilities.

The COR theory was partially supported by the findings of this study. Being older, male, married, with lower level of education, higher household income, and fewer children do not relate to any type of WFC in this study as suggested in the COR theory (e.g., Burke, 1997; Eagle et al., 1998; Erickson et al. 2000; Grandey & Cropanzano, 1999; Tatman, 2001). However, the COR theory was supported from the evidence of resources gained through social support (such as administrative support), availability of support from family-social network, presence of employed help and non-working spouse in childcare and household chores, and flexible working hours (e.g., Ahmad et al., 1999; Aryee et al., 1999; Hammer et al., 1997; Lee & Choo, 2001; Matsui et al., 1995; Rosenbaum & Cohen, 1999)

Recommendations for Future Research

The data collected showed encouraging effects of administrators' support and flexibility of work schedule on WFC, and are among variables that might be more feasible for organizations to implement. Future research could be conducted to explore how administrators' support and flexibility of work schedule could be implemented to enhance perceived supportiveness by the employees and reduce WFC.

Both flexibility of work schedule and administrators' support, however, did not explain much of the variances in the WFC. Probably there are more important variables that could have influenced WFC but not been taken into consideration in this study. Future research could investigate the effects of these variables on WFC. Examples of these variables are:

a. characteristics of the respondents on coping behaviors (Aryee et al., 1999; Tatman, 2001), personality (Carlson, 1999; Stoeva, Chiu, & Greenhaus, 2002), and job and family involvement (Adams et al., 1996);
b. work factors like the existence of work-family policies (Judge et al., 1994; Kossek & Ozeki, 998), role conflict and role ambiguity (Carlson, 1999), and organization position (Carikci, 2002); and
c. family factors like family satisfaction and life satisfaction (Aryee et al., 1999).

Causality also cannot be concluded due to the short time-frame used in this study. The same as for the effects of COR Theory which cannot be fully justified. Future research should use time-lagged research design to study the change (gain/loss) of resource that affects the experience of WFC.

References

Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family involvement. *Journal of Applied Psychology, 81*, 411–420.

Ahmad, A. (1996). Work-family conflict among married professional women in Malaysia. *Journal of Social Psychology, 136*(5), 663–665.

Ahmad, A., Hashim, N. H. M., Isa, A. M., & Hamzah, S. R. (1999). Role conflict and social support of employed women in industry. In M. Ismail & A. Ahmad

(Eds.), *Women & work: Challenges in industrializing nations* (pp. 57–80). U.K.: Asean Academic Press.

Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role stressors, interrole conflict, and well being: the moderating influence of spousal support and coping behaviors among employed parents in Hong Kong. *Journal of Vocational Behavior, 54*, 259–278.

Burke, R. J. (1997). Are families damaging to careers? *Women in Management Review, 12*(8), 320–324.

Burley, K. A. (1995). Family variables as mediators of the relationship between work-family conflict and marital adjustment among dual-career men and women. *The Journal of Social Psychology, 135*(4), 483–497.

Caplan, R. D., Cobb, S., French, J. R. P., Harrison, R. V., & Pinneau, S. R., Jr. (1975). *Job demands and worker health* (HEW Publication No. N10SH, pp. 75–160). Washington, DC: U.S. Department of Health, Education and Welfare.

Carikci, I. (2002). *Gender differences in work family conflict among managers in Turkey: Non-western perspective*. Paper presented in EURAM, Stockholm, Sweden. Retrieved June 13, 2003, from http://www.bc.edu/bc_org/avp/wfnetwork/loppr/gender_diffs_nonwest.pdf

Carlson, D. S. (1999). Personality and role variables as predictors of three forms of work-family conflict. *Journal of Vocational Behavior, 55*, 236–253.

Carlson, D. S., Kacmar, K. M., & Williams, L. J. (2000). Construction and initial validation of a multidimensional measure of work-family conflict. *Journal of Vocational Behavior, 56*, 249–276.

Carlson, D. S., & Perrewe, P. L. (1999). The role of social support in the stressor-strain relationship: An examination of work-family conflict. *Journal of Management, 25*, 513–540.

Cohen, S., & Wills, T. A. (1985). Stress, social support and buffering. *Psychological Bulletin, 98*, 310–357.

Duxbury, E. L., & Higgins, C. A. (1991). Gender differences in work-family conflict. *Journal of Applied Psychology, 76*, 60–74.

Eagle, B. W., Icenogle, M. L., Maes, J. D., & Miles, E. W. (1998). The importance of employee demographic profiles for understanding experiences of work-family interrole conflicts. *The Journal of Social Psychology, 138*(6), 690–709.

Erickson, R. J., Nichols, L., & Ritter, C. (2000). Family influences on absenteeism: Testing an expanded process model. *Journal of Vocational Behavior, 57*, 246–272.

Findler, L. S. (2000). The role of grandparents in the social support system of mothers of children with a physical disability. *Families in Society, 31*(4), 370–381.

Frone, M. R. (2000). Work-family conflict and employee psychiatric disorders: The national comorbidity survey. *Journal of Applied Psychology, 85*(6), 888–895.

Frone, M. R., Russell, M., & Cooper, M. L. (1992). Antecedents and outcomes of work-family conflict: Testing a model of the work-family interface. *Journal of Applied Psychology, 77*, 65–78.

Goff, S. J., Mount, M. K., & Jamison, R. L. (1990). Employer supported child care, work/family conflict, and absenteeism: A field study. *Personnel Psychology, 43*, 793–809.

Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior, 54*, 350–370.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*(1), 76–88.

Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations from work family conflict. *Journal of Applied Psychology, 76*(4), 560–568.

Hammer, L. B., Allen, E., & Grigsby, T. D. (1997). Work-family conflict in dual-earner couples: Within-individual and crossover effects of work and family. *Journal of Vocational Behavior, 50*, 185–203.

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513–524.

Hobfoll, S. E. (1998). *Stress, culture and community: The psychology and philosophy of stress*. New York: Plenum Press.

Judge, T. A., Boudreau, J. W., & Bretz, R. D., Jr. (1994). Job and life attitudes of male executives. *Journal of Applied Psychology, 79*(5), 767–782.

Kofodimos, J. (1993). *Balancing act*. San Francisco: Jossey Bass.

Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology, 83*(2), 139–149.

Lee, J., & Choo, S. L. (2001). Work-family conflict of women entrepreneurs in Singapore. *Women in Management Review, 16*(5), 204–221.

Matsui, T., Oshawa, T., & Onglatco, M. L. (1995). Work-family conflict and the stress-buffering effects of husband support and coping behavior among Japanese married working women. *Journal of Vocational Behavior, 47*, 178–192.

Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and valida-

tion of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*(4), 400–410.

Nielson, T. R., Carlson, D. S., & Lankau, M. J. (2001). The supportive mentor as a means of reducing work-family conflict. *Journal of Vocational Behavior, 59*, 364–381.

Noor, N. M. (2002). Work-family conflict, locus of control, and women's well-being: Tests of alternative pathways. *Journal of Social Psychology, 142*(5), 645–662.

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.

Parry, G., & Warr, P. B. (1980). The measurement of mothers' work attitudes. *Journal of Occupational Psychology, 53*, 245–252.

Pleck, J. H., Staines, G. L., & Lang, L. (1980). Conflicts between work and family life. *Monthly Labor Review, 103*(3), 29–32.

Rosenbaum, M., & Cohen, E. (1999). Equalitarian marriages, spousal support, resourcefulness, and psychological distress among Israeli working women. *Journal of Vocational Behavior, 54*, 102–113.

Stoeva, A. Z., Chiu, R. K., & Greenhaus, J. H. (2002). Negative affectivity, role stress, and work-family conflict. *Journal of Vocational Behavior, 60*, 1–16.

Tatman, A.W. (2001). *Role stressors, interrole conflict, and well-being: the moderating influence of spousal support and coping behaviors among employed parents, a replicative study*. Unpublished research paper, University of Wisconsin-Stout, Menomonie. Retrieved May 26, 2003, from http://www.uwstout.edu/lib/thesis/2001/2001tatmana.pdf

Thomas, L. T., & Ganster, D. C. (1995). Impact of family-supportive variables on work-family conflict and strain: A control perspective. *Journal of Applied Psychology, 80*(1), 6–15.

Willigen, M. V., & Drentea, P. (2001). Benefits of equitable relationships: The impact sense of fairness, household division of labour and decision making power on perceived social support. *Sex Roles, 44*(9/10), 571–597.