



Working hours and personal preference among Taiwanese employees

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Abstract

Purpose – The aim of this research is to explore effects of hours of work and the role of personal preference on job satisfaction, work-to-family conflict (WFC) and overall life satisfaction among Taiwanese employees.

Design/methodology/approach – Data from a nationwide survey in Taiwan were used. A total of 1,122 full-time employees were surveyed using structured questionnaires.

Findings – It was found that working hours were negatively related to job satisfaction and overall life satisfaction, and positively related to WFC, after effects of demographical and job-related factors were partialled out. More importantly, it was found that the “fit” between preferred and actual hours of work had an effect upon the above strain variables. Specifically, people who had a fit between preferred and actual hours of work reported lower levels of WFC and higher overall life satisfaction, compared to those who had a misfit in working hours.

Research limitations/implications – Using single-item measures is a major limitation, though it is a common practice in large-scale social surveys due to constraints on length and time. However, these results have both theoretical and practical implications. It is recommended that both the actual and individual’s preference for hours of work should be taken into consideration in any attempt to improve employees’ quality of work and quality of life in general.

Originality/value – The use of a national representative sample is a major thrust of the present study. This study also fills the gap left by the scarcity of research on working hours and strain from a Chinese perspective.

Keywords Hours of work, Job satisfaction, Work-to-family conflict (WFC), Life satisfaction, Taiwan

Paper type Research paper

Hours of work have long been recognized to have a marked affect on the way an individual and his family lives (Dankert *et al.*, 1965). Some 40 years later the potential impact of long work hours on an individual’s well-being is still an important issue. Research investigating the relationship between work hours and health symptoms has produced unequivocal evidence linking the two (mean $r = 0.13$, Sparks *et al.*, 1997). Long working hours have also been associated with both work- and non-work-related accidents (Kirkcaldy *et al.*, 1997; Trimpop *et al.*, 2000), job-related stress (Cooper *et al.*, 1982), job satisfaction (Trimpop *et al.*, 2000), and work-family conflict (Bruck *et al.*, 2002). Despite the rather large literature concerning working hours and various strain outcomes, the vast majority of studies have been done in the North American and European countries, as evidenced by the studies included in the comprehensive review



on the topic (Sparks *et al.*, 1997). Taiwanese people in average work longer hours (41.6 hours/week) than their Western (US: 33.9; Canada: 31.7; Germany: 38.2) and Japanese (35.4) counterparts (Directorate-General of Budget, 2006). However, few studies have systematically examined the effects of working hours on strain among Taiwanese employees. We thus used a Taiwanese national representative sample to test the Western findings of the negative impact of working hours on strain. In addition, we took “personal preference” into consideration which is rarely examined in existing studies.

Working hours and strain

Compared to this study, which focused on personal choice, much of the existing research on working hours has been conducted within the occupational stress perspective, focusing on long working hours as a risk factor for health problems, accidents, work dissatisfaction and negative spill-over from work to family. In today's competitive business world, due to increasing workload, job insecurity, pressure to perform, and rising cost of living (pressure to earn more), many people are working longer hours. Working long hours can overtire an individual mentally and physically. This, together with the prolonged exposure to work stressors and demands of family life, can affect one's health, heighten feelings of conflict between work and family obligations, and depress role satisfaction. Fatigue has been identified as an important mediator between long working hours and health problems or accidents (Rosa, 1995). As meta-analytically reviewed by Sparks *et al.* (1997), the relationship between working hours and health problems has been firmly established. This relationship is even stronger when mental health symptoms (mean $r = 0.15$) as opposed to physical health symptoms (mean $r = 0.06$) are used as indicators. Although these effect sizes were small, the relationships were statistically significant. These results of meta-analysis are also supported by the general trend identified within another set of qualitatively reviewed studies reported in the same paper (Sparks *et al.*, 1997).

More recent studies have generally confirmed the negative effects of working hours on health in more culturally diverse samples. For instance, Kirkcaldy *et al.* (2000) found negative impact of working hours on psychological and physical health among German managers, especially for those worked more than 48 hours weekly. In a rare large scale cross-cultural comparison study, Spector *et al.* (2004) found significant relationships between working hours and psychological health for both Anglo (Australia, Canada, England, New Zealand, and the US) and Chinese societies (Hong Kong, PRC, Taiwan). They also found a significant relationship between working hours and physical health for the Chinese but not Anglo workers. Overall, these effects were rather small ($r = 0.01 - -0.09$).

While fatigue (Rosa, 1995) and stress (Kirkcaldy *et al.*, 1997, 2000) caused by long working hours may lead to hazardous effects on health and accidents, hours of work may also impact on role satisfaction and work-family interface. For instance, number of working hours was found to relate negatively to job satisfaction among German managers (Kirkcaldy *et al.*, 2000). In the aforementioned cross-cultural study (Spector *et al.*, 2004) working hours were also significantly correlated with job dissatisfaction for English-speaking Anglos ($r = 0.15$), but not Chinese ($r = 0.02$). In a later more encompassing cross-cultural study Spector *et al.* (2007) however, found no relationship between number of working hours and job dissatisfaction across the 20 countries they surveyed. Thus, it seems that although there is reason to believe that long working hours may lead to job dissatisfaction possibly via increased job-related stress,

empirical evidence has been equivocal. Overall life satisfaction, which is closely related to job satisfaction and may be used as a general indicator of an individual's well-being, has been largely overlooked in the literature.

On the other hand, the negative effect of working hours on the work-family interface has attracted increasing attention in recent years. Work-family conflict is defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respects" (Greenhaus and Beutell, 1985, p. 77). Long working hours have been identified as a direct precursor to work-to-family conflict (WFC), which refers to the interference and negative spillover from work to family domain (Bruck *et al.*, 2002; Frone, 2003). One recent study in Taiwan found similar results (Lu *et al.*, 2005), though such relationships are modest for Westerners and Chinese alike. The mechanism for such a linkage may be the competition between work and family demands for limited resources such as time and psychological energy. As evidenced in Spector *et al.*'s (2007) cross-cultural study, working hours were significantly related to both time-based WFC and strain-based WFC in their 20-country sample. However, inconsistency in results still exists. For instance, Spector *et al.* (2004) earlier failed to find a significant relationship between working hours and WFC for the Chinese, though they found one for the Anglos. Given these inconsistencies pertaining to the relationship between working hours and job dissatisfaction and WFC when contrasting the Chinese with Westerners, plus the scarcity of systematic research involving the Chinese, it is interesting to test the negative effects of working hours on strain as observed in the West in a representative sample of cultural Chinese (Taiwanese in the present study). We thus hypothesized that working hours would be negatively related to job satisfaction and overall life satisfaction, but positively related to WFC in Taiwan (Hypothesis 1).

Personal choice: desired vs. actual hours of work

As aforementioned, although a connection between working hours and strains (e.g. WFC, job dissatisfaction, health) has already been established, at least for Western employees (Bruck *et al.*, 2002; Kirkcaldy *et al.*, 2000; Sparks *et al.*, 1997), the effect size is uniformly small. This implies that the mechanism through which work hours generate strain is still largely unknown and there may be important factors overlooked. Barnett *et al.* (1999) argued that "fit" may be one such factor, especially whether or not the individual wants to work the hours he or she works. In fact, any study sample contains people who are working the hours they want, and people who are working more or less hours they want. The fact that number of work hours as typically measured fails to capture the employee's motivation and/or desire to do so may explain the weak correlations with strains. More importantly, an individual's choice in time expenditure should be respected to enhance both personal well-being and societal welfare. This is because although employment is widely seen as promoting social inclusion and creating societal values, integration and stability in society is also facilitated by living according to the same set of norms and values as other members of society. The family has been a major integrating structure protecting both physical and mental wellbeing for the individual (Stack and Eshleman, 1998). The same goes for other forms of social participation, such as voluntary associations and leisure (Argyle, 2001; Lu and Hu, 2005; Lu and Kao, 2009). Thus, if people are allowed to make a choice between spending time on paid employment and on family living or other activities, a state of fit may then lead to enhanced role satisfaction and general wellbeing.

The issue of “choice” could also be understood within the theoretical framework of the “demand-discretion model” (Karasek, 1979; Karasek and Theorell, 1990). As suggested by this work stress model, strains would be the highest among those who endure high work demands (e.g. long work hours) and suffer from the dearth of control over work (e.g. lack of autonomy regarding working hours). For those who endure high work demands but enjoy high decision latitudes, work may represent more of a challenge than drudgery. A recent study basing on a nationwide sample confirmed that autonomy in deciding work time was positively related to increased organizational commitment among Taiwanese employees (Lu *et al.*, 2008). The issue of personal choice or control pertaining to work schedule thus warrants more research attention.

Applying the notion of personal choice and fit, Costa *et al.* (2006) compared effects of two aspects of flexible arrangement of working hours on health and wellbeing. They distinguished “variability” which is more subjected to company control and decision, from “flexibility” which is more connected to individual discretion and autonomy. Analyzing data from the Third European Survey on working conditions involving 21,505 workers, they came to the conclusion that the most favorable effects were associated with higher flexibility and lower variability. Furthermore, analysis of interactions with background variables such as demographics, working and social conditions revealed that flexibility is the most important factor to influence job satisfaction, and the second to affect family and social commitment. Therefore, suitable arrangements of flexible working time, taking into consideration of individual’s needs and desires, appear to have a clear beneficial effect on workers’ health, role satisfaction and general well-being, with positive consequences also at the company and social level.

Research along another line has also produced evidence underlining the beneficial effects of personal choice. Within the moonlighting literature there are two hypotheses (Jamal, 1986):

- (1) the “energic/opportunity” hypothesis; and
- (2) the “deprivation/constraint” hypothesis.

The former proposes that moonlighters are a special breed, having more energy and higher social and economic expectations in life than others. To satisfy their higher expectations, they voluntarily exert more energy and effort than non-moonlighters. The “deprivation/constraint” hypothesis in contrast, proposes that moonlighters are generally economically squeezed and socially deprived, and so resort to moonlighting. In a review of the literature, Baba and Jamal (1992) concluded that empirical evidence supports the “energic/opportunity” hypothesis, thereby suggesting that moonlighters perhaps chose to work in a second job or the night shift for extra pay. Moonlighters may not suffer any negative health consequences from working long hours as they have chosen to work the extra hours. Thus, compared with non-moonlighters, no differences were found in health consequences.

In the work stress literature, person-environment (P-E) fit theory too emphasizes the interplay between the individual and the environment (Caplan, 1983; French *et al.*, 1982). The core premise of P-E fit theory is that stress arises not from the person or environment separately, but rather by their fit or congruence with one another. Specifically, an individual who works the hours s/he wants (no more, no less) is in a state of fit, thus satisfied and content. Contrary, working more or less hours than s/he desires represent a state of misfit, which is likely to raise stress and ill-being.

Applying such findings on “choice” to working hours, individual control over hours of work has been found to influence perceived stress level (Hall and Savery, 1986). Kirkcaldy *et al.* (2000) found for people with Type A tendency and high internal locus of control, working long hours produced positive consequences, presumably as they chose to work so hard. It thus seems that “choice” may distinguish people on strain and well-being. As there has been no research examining the effects of “personal choice” of working hours on strain in Chinese workers, it is imperative to empirically test this hypothesis in a large representative sample of Chinese employees. We thus hypothesized that people who have a fit between desired and actual working hours will have higher job satisfaction, lower WFC, and higher overall life satisfaction, compared to those who do not have a fit (Hypothesis 2).

To summarize, the present study aimed to extend the existing literature on working hours in two aspects. First, responding to the scarcity of research on non-Western samples, we tested the negative impact of working hours on strain in a Taiwanese national representative sample. Second, to bridge the gap in current knowledge, we examined the effects of “choice” or “fit” on strain and well-being.

Method

Data and participants

Data for the present paper came from the 2005 “Taiwan Social Change Survey” (TSCS), which is the largest nationwide social survey in Taiwan (also incorporated into the International Social Survey Program, ISSP, which involves 40 countries in the world). The TSCS series is operated by the Academia Sinica Taiwan, which has conducted 41 surveys as of 2008. With more than 80,000 interviews over the past 24 years, the TSCS has become the largest survey series among all of the general social surveys in the world in terms of the accumulated sample size (Smith *et al.*, 2006). Highly reputed for its methodological rigor (e.g. nationwide three-stage stratified proportion-to-population size (PPS) sampling using household registration data, well-trained interviewers making home visits, strict supervision, post-interview verification and data checking), its high quality database is widely used for academic research and cross-cultural comparisons under the banner of the ISSP. The 2005 survey had a theme of “work orientation” with core items forming the ISSP module that year. The response rate for the 2005 survey was 45.7 percent. TSCS has a strict built-in protocol for replacement in cases of refusal, or failure of locating designated interviewees, and consequently the representativeness of its samples have been established (Smith *et al.*, 2006). In the present paper, we initially selected for analysis only those respondents claiming that they held full-time jobs, responding to a particular question in the survey. However, we further deleted data for 48 participants (4.3 percent) who actually worked for less than 35 hours per week, responding to another question (see the measure for working hours). We did so to corroborate labor convention in Taiwan where a minimum of 35-hour working week is the definition for full-time employment (Lu, 2010) and such a criterion was adopted in TSCS (Smith *et al.*, 2006). Such a practice could eliminate unwanted variations in working hours to avoid discrepancies between self-identified employment statuses and actual time expenditure in paid jobs. Consequently, the current national sample was composed of 1,122 respondents. The entire sample was 57.0 percent male and 43.0 percent female, with a mean age of 40 (SD10.94, range20 – 77), and mean job tenure of 8.54 years (SD8.98). Over a quarter of the respondents (29.1 percent) were managers at various levels. An almost equal proportion of respondents

worked for small businesses (employing fewer than ten employees, 26.9 percent) and large corporations (employing more than 250 employees, 26.8 percent). The majority (70.1 percent) was married.

Measures

Questionnaires were administered in face-to-face home interviews by trained interviewers. The data analyzed in the present paper mainly came from the following parts of the survey.

Working hours and personal preference. Two aspects of time expenditure were assessed:

- (1) working hours pertained to the number of hours respondents actually worked in a typical week; and
- (2) personal preference pertained to the desire to spend more or less time on paid employment while taking financial returns into consideration.

Following the stem: "Think of the number of hours you work, and the money you earn in your main job, including any regular overtime, if you had only one of these three choices, which of the following would you prefer?" participants were instructed to select one of the following options:

- work fewer hours and earn less money;
- work the same number of hours and earn the same money; and
- work longer hours and earn more money.

To assess the degree of "fit" between desired and actual working hours, the following groups were distinguished:

- Group A-misfit-less: wanting to work fewer hours;
- Group B-fit: working the same hours; and
- Group C-misfit-more: wanting to work more hours.

Strains. In the survey, participants were asked to rate:

- job satisfaction on the question: "How satisfied are you in your job?" (1completely dissatisfied, 7completely satisfied);
- WFC on the item "the demands of your job interfere with your family life" (1never, 5always); and
- life satisfaction on the item: "In general, I am happy with my life" (1disagree very much, 4agree very much).

It is regrettable that established multi-item scales for these variables were not used due to extreme space constraint for a large-scale social survey with an embedded international core module.

Information on sex (coded male = 0, female = 1), age, seniority (tenure on the job), marital status (coded married = 0, notmarried = 1), rank (coded managers = 0, non-managers = 1), and company size was also collected.

Results

Pearson correlations among the main research variables were calculated and shown along with descriptive statistics in Table I. In agreement with *H1*, working hours were positively correlated with WFC and negatively correlated with job satisfaction and life satisfaction. It is worth noting that the average weekly working hours were 48.96 in this national sample, which is well above the official figure of 41.6 (Directorate-General of Budget, 2006), and the Taiwanese Working Time Directive of 84 hours in two weeks (Council of Labor Affairs, 2007).

Also can be seen in Table I, demographic variables correlated with working hours and some strain measures. Specifically, men reported longer hours of work, higher job satisfaction but lower life satisfaction. Married people reported longer hours of work, higher job satisfaction and WFC. Older and more senior workers reported longer hours of work, higher job satisfaction but lower life satisfaction. Finally, managers reported longer hours of work, higher job satisfaction and WFC. These demographic variables were thus controlled for in subsequent regression analysis for hypothesis testing. However, age and seniority had a rather high correlation ($r = 0.86$). To avoid collinearity, only seniority was entered along with other demographics in the regression model.

We used hierarchical multiple regression technique to test *H1*. When predicting job satisfaction, WFC, and life satisfaction separately, demographic variables (i.e. sex, marital status, seniority, rank, company size) were entered into the equation first (Step 1) to control for their possible contributions. At Step 2, actual working hours were then entered. Full regression models are presented in Table II. Standardized regression coefficients (β) were taken from the final models.

Working hours were positively related to WFC, negatively related to job satisfaction and life satisfaction, thus supporting *H1*. However, the effect size was small: working hours alone accounted for 2 percent, 3 percent, and 1 percent of the total variance in job satisfaction, WFC, and life satisfaction. Again, demographic variables showed some effects on strains. More senior workers and managers had higher job satisfaction. Married workers and managers had higher WFC. Women and managers had higher life satisfaction.

We then tested *H2* by comparing means across the three "personal preference" groups. Since working hours were consistently related to strains, we used ANCOVA to control its effect as a covariate. Results are shown in Table III. All three overall models were significant, and the covariate (working hours) had consistent effects on strains. The main effects of personal preference were significant on WFC and life satisfaction. Post-hoc comparisons further revealed that people wanting to work fewer hours (Group A) had the highest WFC, followed by those wanting to work more hours (Group C) and those wanting to work the same hours (Group B). People wanting to work the same hours (Group B) reported higher life satisfaction than those wanting to work more hours (Group C). However, the main effect of personal preference was not significant on job satisfaction. In general, the fit group (B) seemed to fare better than the two misfit groups (A & C), partially supporting our *H2*.

One descriptive statistic is worth noting: 13.40 percent of our participants expressed desire to work fewer hours (Group A), while 51.39 percent wanted to work *more* hours (Group C). Only 35.21 percent wanted to work the same hours for the same amount of money they made (Group B). Reported actual working hours for participants in each of the three groups were listed at the bottom of Table III.

Variables	Sex	Age	Mar	Seniority	Rank	Company size	Working hours	Job satisfaction	WFC	Life satisfaction
Sex	1.00									
Age	0.02	1.00								
Marriage	0.03	-0.35***	1.00							
Seniority	-0.09**	0.86***	-0.34***	1.00						
Rank	0.14***	-0.13***	0.11***	-0.12***	1.00					
Company size	0.02	0.04	0.01	0.01	0.03	1.00				
Working hours	-0.11***	0.10***	-0.07*	0.12***	-0.08**	0.01	1.00			
Job satisfaction	-0.06*	0.07*	-0.10***	0.05*	-0.12***	0.02	-0.11***	1.00		
WFC	-0.04	-0.02	-0.12***	-0.01	-0.13***	0.01	0.18***	-0.21***	1.00	
Life satisfaction	0.12***	-0.15***	-0.01	-0.14***	0.04	0.03	-0.10***	0.38***	-0.12***	1.00
Mean	/	40	/	8.54	/	434.45	48.96	5.02	2.01	3.03
SD	/	10.94	/	8.98	/	475.37	14.12	1.02	0.96	0.56
Range	/	20 - 77	/	1 - 53	/	1 - 999	35 - 96	1 - 7	1 - 5	1 - 4

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Sex: 0 = M, 1 = F; Marriage: 0 = Married, 1 = Single; Rank: 0 = Manager, 1 = Non-manager; WFC = Work-to-family conflict

Table I.
Zero-order correlations and mean, SD, range of main research variables

Table II.
Predicting job
satisfaction, WFC, and
overall life satisfaction

Step	Variables	Job satisfaction		WFC		Life satisfaction	
		β	R^2	β	R^2	β	R^2
1	Sex	-0.05		-0.01		0.12***	
	Marriage	-0.04		-0.10***		-0.01	
	Seniority	0.14***		-0.05		-0.04	
	Rank	-0.11***		-0.11***		-0.06*	
	Company size	0.02	0.04***	0.01	0.03***	0.01	0.02***
2	Working hours	-0.13***	0.02***	0.16***	0.03***	-0.09**	0.01**
	<i>F</i> (df)	13.11*** (6,1104)		120.27*** (6,1102)		60.29*** (6,1104)	
	<i>R</i> ²	0.06		0.06		0.03	

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; Sex: 0 = M, 1 = F; Marriage: 0 = Married, 1 = Single; Rank: 0 = Manager, 1 = Non-manager

Discussion

The thrust of the present study is that we for the first time, examined effects of working hours along with personal preference on strains, both work-related and non-work related. Earlier research in the field focused on establishing the link between shift, night work, long working hours and sleep problems, digestive and cardiovascular troubles, as well as health and safety at work. However, the majority of these works are done in the West. In the most comprehensive literature review and meta-analysis on the issue, Sparks *et al.* (1997) located only one study conducted in Hong Kong (looking at hand injuries among factory workers). The present study bridged a knowledge gap by producing generalizable results for the Chinese employees beyond health and safety consequences as strain indicators. Specifically, we found that working hours were related to job satisfaction, WFC, and overall life satisfaction. These results are different from Spector *et al.*'s (2004, 2007) findings of no relationships between working hours, job satisfaction and WFC for their Chinese samples. However, this could be caused by the small, convenient samples they recruited composed of mainly managers. With the national representative sample we used, we are more confident to conclude that long working hours may indeed have detrimental effects on Chinese employees' work attitudes, work-family integration, and overall well-being. Combining our findings with the already established link between working hours and health consequences for Westerners (Sparks *et al.*, 1997) and Chinese (Spector *et al.*, 2004), the impact of long work hours on both the individual and the family certainly deserves more attention and concrete actions. Responding to Dankert *et al.*'s (1965) early warning that working hours not only affect the individual but also impact on his family, any arrangements of working time should take into consideration both supporting the employees individual coping as well as the needs and responsibilities of their family life. Only then, positive effects can be expected on both workers' health and wellbeing, and company and social commitment (Costa *et al.*, 2006).

This brings us to another thrust of our study. We underlined the importance of "personal choice" as a form of individual coping related to working hours. Although the existing moonlighting literature generally supports the "energetic/opportunity" hypothesis, and researchers have identified "fit" as a mediator between working hours and burnout in the West (Barnett *et al.*, 1999), the potential beneficial effects of personal choice on working hours have never been empirically tested for the Chinese. We found

	Personal preference										Main effect Personal preference	Post-hoc (Scheffe)
	Group A Misfit-less hours		Group B Fit- same hours		Group C Misfit-more hours		Covariate Actual working hours	F	(df)	Covariate Actual working hours		
	M	SD	M	SD	M	SD						
Job satisfaction	4.97	1.03	5.11	1.00	4.97	1.03	5.81*	(1109)	12.56*	2.31	A > C > B B > C	
WFC	2.35	1.03	1.86	0.86	2.02	0.98	20.78*	(1107)	32.24*	13.78*		
Life satisfaction	3.03	0.57	3.12	0.55	2.97	0.56	9.09*	(1112)	11.20*	8.01*		
Actual working hours	49.24	17.63	46.36	15.51	48.62	16.52						

Note: * $p < 0.001$

Table III.
Effects of personal
preference on strains:
Controlling for actual
working time

that for Taiwanese workers, personal preference indeed had an impact on WFC and life satisfaction. Specifically, those who enjoyed a state of fit between desired and actual work hours generally had a better integrated work-family life (less conflict between the two) and higher well-being (life satisfaction), compared to those who were in a state of misfit, whether wanting to work more or fewer hours. These results are somewhat different from Costa *et al.*'s (2006) findings for European workers. They found that personal autonomy in working hours (flexibility) was the most important factor influencing job satisfaction, while we found no evidence that personal choice affected work attitudes for the Chinese.

This inconsistency in results may be explained by the disparate cultural values of individualism and collectivism prevailing in the East and the West (Hofstede, 2001). The 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 long working hours are demanded, individualists may interpret this as work interfering with the family life, thus will experience heightened job dissatisfaction. In contrast, collectivists such as Chinese view work as a means to further family welfare, and are more tolerant of hardworking, even when it sacrifices family life (Lu *et al.*, 2005). Thus, even though Chinese employees are working more hours than they personally prefer to, their work attitudes will not be affected due to the conviction that such diligence is benefiting the family and their families support their behaviors. However, although devotion to work is a highly praised Confucian virtue, working more hours than one wants still inevitably constricts time available for family life, thus causing feelings of work-family conflict (incompatible demands and responsibilities) and damping life satisfaction possibly due to guilt feelings for failing in role performance in both work and family domains.

Our study has made a contribution to bridging some gaps of knowledge in working hours and strain issues from a Chinese perspective. However, before drawing conclusions, there are certain methodological limitations that should be kept in mind. First, our data came from a cross-sectional study, thus no causal conclusions are legitimate. Second, the present study was essentially an exercise in secondary data analysis, which has inherent limitations. For instance, well-established and theory-based multi-item measures of job satisfaction, WFC and life satisfaction should have been adopted. The true extent of the relationship between working hours and strain may be obscured by the use of single-item measures, and due caution should be exercised in interpreting results reported herein. Also, health and safety data were not collected in the original survey. These are opportunities for future research.

Having a national probability sample and high quality data collection are rare in the field, the present study can thus offer some suggestions for the management practice. As we found that "choice" of working hours or "fit" between the desired and actual working hours had a positive effect on work-family integration and life satisfaction, work schedules incorporating long hours may benefit from taking account of individual preferences. After all, a substantial proportion of our sample (51.39 percent) would be willing to work more hours for more monetary returns. Companies should provide fair compensation to satisfy workers higher economic expectations and at the same time this may increase their tolerance to extended working hours. In addition, an organizational climate where employees participate in working time decisions and policies would further foster perceived organizational support and personal control at work, which in turn may promote job satisfaction, organizational commitment, and

work-family integration, as revealed in a recent Taiwanese study (Lu *et al.*, 2008). To conclude, both working hours and personal choices should be taken into account in devising suitable work time schedules to produce the maximal positive effects on employees' well-being, organizational-level commitment, and societal integration.

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