Work-family conflict and well-being among employed women in Malaysia: The roles of coping and work-family facilitation

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ABSTRACT

As the numbers of employed women, single-parent households, and dual-earner families are increasing, women are no longer confined to their traditional gender roles. Women's participation in work and family domains indicates their struggles in juggling multiple roles and incompatible demands from both domains. Under these circumstances, they may experience conflict between work and family domains. However, women's involvement in multiple roles may also result in benefits that can outweigh the costs associated with work-family conflict, and this is known as work-family facilitation. Work-family facilitation has received less attention in the literature than work-family conflict. Most research in the work-family literature has examined work-family conflict and work-family facilitation separately. Furthermore, most studies that examine work-family facilitation investigated the antecedents, effects, and its mediating role. Little emphasis has been placed on the moderating role of work-family facilitation.

The present study was conducted among single and married employed women in Malaysia. Although they are the breadwinners of the family alongside the men, Malaysian women place their roles as wives and mothers above other roles (Hossain, Roopnarine, Ismail, Hashmi, & Sombuling, 2007). Due to different cultural traditions, societal values, work ethos, and family structures between Malaysia and Western countries, the findings from Western literature

cannot be simply generalised to Malaysians. The present research involved a non-experimental two-wave design with a six- to eight-month time interval. Self-report surveys were obtained from 740 employed women at Time 1 and 210 at Time 2 from six industry types in Malaysia. Multivariate analysis was used to assess the direct effects of work-family conflict, coping, and work-family facilitation on well-being (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction). Hierarchical regression was also used to examine the moderating effects of coping and work-family facilitation on the relationships between work-family conflict and well-being. Structural equation modelling (SEM) was used to test the mediating effect of work-family facilitation on the relationship between work-family conflict and well-being.

The cross-sectional and longitudinal findings of this study confirmed the findings in Western literature on the direct effects of work-family conflict and work-family facilitation on well-being, except for the positive association of FWC behaviour and family satisfaction at Time 1. While the other types of coping were related to increased well-being, high escape-avoidance at Times 1 and 2 in this study was associated with high anxiety/depression in the cross-sectional data. No longitudinal direct effect of coping on well-being was found. The cross-sectional findings of this study indicated very weak support for the moderating effects of coping and work-family facilitation on the relationship between work-family conflict and well-being. There were minimal interactions between coping and work-family conflict on intention to stay over time, and the interactions were not as hypothesised.

This study also found some cross-sectional mediating roles of work-family facilitation on the relationship of work-family conflict and well-being among employed women in Malaysia. The cross-sectional findings indicated that work-family facilitation variables serve better as mediators than moderators. Both work-to-family facilitation (WFF) and family-to-work facilitation (FWF) mediated the relationship of family-to-work conflict (FWC) time and social dysfunction, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 1. At time 2, WFF mediated the relationships of work-to-family conflict (WFC) strain and behaviour and FWC (strain and behaviour) and social dysfunction, family satisfaction, and life satisfaction, whereas FWF only mediated the relationship between FWC behaviour and family satisfaction. Although WFF mediated the relationship of FWC behaviour and intention to leave, and FWF mediated the relationship between WFC time and intention to leave over time, the relationships were not as hypothesised.

This research makes some theoretical contributions and expands the landscape of work-family literature by examining the roles of work-family facilitation as a moderator and mediator of the relationship between different directions and types of work-family conflict and well-being, in both cross-sectional and longitudinal models. Additionally, this study provides useful information on the different types of coping strategies as moderators in the work-family model tested, and its application to the Malaysian culture. The findings may help the human resource practitioners understand how work-family conflict and facilitation, together with coping strategies, influenced employees' well-being. Implications of the research are discussed and recommendations for future research are included.

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Verily, with every difficulty there is relief
(Al Inshirah: 6)

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CHAPTER 1

INTRODUCTION

Research background and problem statements

The present research focused on how work and family affect employed women's well-being in Malaysia. Previous studies on work and family have focused on the negative experiences of combining work and family domains, which is also known as work-family conflict (Chen & Powell, 2012). However, recently researchers have started to explore the possibilities of positive experiences from combining work and family in employees' lives, which is also known as work-family facilitation. The work-family literature indicates that work-family conflict and facilitation are independent constructs (Wayne, Musisca, & Fleeson, 2004). In other words, it is possible for an individual to experience a high level of work-family conflict and facilitation at the same time.

The work and family interface has been the focal point of interest among organisational researchers due to the changes in work and family responsibilities (Voydanoff, 2002). The incremental participation of women in the workforce around the world has produced a greater number of dual-income earner families. At the same time, economic growth, global competition, and technological advancement have changed the way employees work. For example, with technological advances such as internet, teleconferencing, and smart phone, work can be performed almost everywhere, be it during holidays or at home. The competing demands of work and family roles, either at home or at the workplace, often affect employees' well-being.

The present study focused on work-family conflict, coping, and work-family facilitation, and well-being among working women in Malaysia. Women constitute approximately half the population of Malaysia (about 11.4 million) (Economic Planning Unit, 2006-2010) and they comprise nearly half of the total labour force. Following Malaysia's Independence in 1957, women's entry into the labour force increased from 30.8% in 1957 to 45.7% in 2005 (Economic Planning Unit, 2006-2010). According to Noor (2001), the increment of women's participation in the labour force can be attributed to three main reasons. First, the implementation of the New Economic Policy by the government in 1969 aimed at eradicating poverty and reconstructing Malaysian society from an agricultural-based to industrial-based society. Second, the New Economic Policy led to rapid economic growth and industrialisation, which have created various job opportunities for women within the paid labour force. Third, the advancement of women in the paid labour force also has been fuelled by equal access to educational opportunities which enable them to achieve higher educational attainment.

Historically, women in Malaysia had been actively involved in various economic activities. Since the pre-colonial days, they were not confined to their homes, but also worked alongside men in agriculture and marketing (Omar, 2003). It is also reported that Malay women worked outside their homes even before the era of industrialisation (Omar, 1994). However, with colonialism, labour became an economic commodity and subsistence production was no longer emphasised. These changes led men to work in paid employment and women to be responsible for the home. The changes brought about by industrialisation in the 1970's encouraged many families to migrate to the urban areas to search for jobs,

and due to the high cost of urban living, most urban residents are dual-earner families (Ariffin, 1982).

Apart from work-related stressors such as prejudice and discrimination (Bielby & Baron, 1986), and stereotyping (Camussi & Leccardi, 2005), employed women also experience another type of stress, that is balancing work and family domains. Regardless of employment positions at work, women experience stress as a result of combining work and family roles. Even when they are employed, women are still primarily responsible for the household chores and childcare responsibilities (Leonard, 2001). The conflicting demands between work and family domains might create tension and negative feelings which will affect women's well-being (Grandey, Cordeiro, & Crouter, 2005).

The increase of women in the paid labour force has provided the impetus for studying the impact of work and family on women's well-being because some Western research findings suggested that men and women experience different types of stressors. Western studies have found that men usually face financial issues, work-related power, and job responsibility as stressors, whereas women's stressors are more related to discrimination, role conflict, role ambiguity and work-family conflict (Bielby & Baron, 1986; McDonough & Walters, 2001; Sharada & Raju, 2001; Tinsley & Stockdale, 1993; Vagg, Spielberger, & Wasala, 2002). In relation to this, the current study aims at investigating the work-family conflict experiences among employed women in Malaysia.

Research Issues

The present study is related to the influences of work-family conflict, coping, and work-family facilitation on employed women's well-being (psychological strain, turnover intentions, and satisfaction) in Malaysia. Hence, these research questions are addressed:

1. What are the effects of work-family conflict, coping, and work-family facilitation on psychological strain?
2. Do coping and work-family facilitation moderate the relationship between work-family conflict and psychological strain?
3. Does work-family facilitation mediate the relationship between work-family conflict and psychological strain?
4. What are the effects of work-family conflict, coping, and work-family facilitation on work-related outcomes (turnover intentions and job satisfaction)?
5. Do coping and work-family facilitation moderate the relationship between work-family conflict and work-related outcomes (turnover intentions and job satisfaction)?
6. Does work-family facilitation mediate the relationship between work-family conflict and work-related outcomes (turnover intentions and job satisfaction)?
7. What are the effects of work-family conflict, coping, and work-family facilitation on nonwork-related outcomes (family and life satisfaction)?
8. Do coping and work-family facilitation moderate the relationship between work-family conflict and nonwork-related outcomes (family and life satisfaction)?

9. Does work-family facilitation mediate the relationship between work-family conflict and nonwork-related outcomes (family and life satisfaction)?

Significance of the research

The present study provides significant contributions to the work and family literature. The rationale for embarking on work and family research is outlined below. Then, the reasons for concentrating on work-family issues in Malaysia and adopting a longitudinal design for this study are explained.

Why study work and family?

Work and family are inextricably linked in employed women's lives. Both work and family domains represents important components of their self identity (Frone, Russel, & Cooper, 1992). Whilst work provides employed women with financial security and status, family provides the foundation of support and intimacy. As women continue to contribute to the paid labour force, they are still playing an active role as the homemakers for the family. Hence, there is a need to examine how the work and family domains coexist and affect employed women's lives.

Work-family conflict occurs when the demands of work interfere with participation at home and vice versa (Frone et al., 1992; Greenhaus & Beutell, 1985). Individuals engaging in multiple roles between work and family may experience somatic complaints, reduced satisfaction and role strain (Frone, Russell, & Barnes, 1996; Grandey et al., 2005). Recent research has found that work-family conflict was reported to be more severe for employed women with

young children (Bull & Mittelmark, 2009; Marshall & Tracy, 2009), especially infants with poor health conditions (Marshall & Tracy, 2009). Those women experienced depressive symptomatology (Marshall & Tracy, 2009), reduced life satisfaction, as well as reduced levels of happiness and positive affect (Bull & Mittelmark, 2009). As women are regarded as having greater responsibilities for childcare and household chores (Aryee, Luk, Leong, & Lo, 1999), the added burdens of having children with poor health conditions increase the existing responsibilities. However, those studies were conducted within Western populations and cannot be simply generalised to the Malaysian population. It cannot be assumed that both populations share the same context, family values and work ethos. Hence, there is a need to study the work-family interface within the Malaysian context so as to gain more understanding of the experiences faced by employed women in this country. The findings of this study will be a basis for developing effective programmes and policies that benefit employees and organisations in Malaysia.

Although extensive studies were conducted on work and family issues, there is a lack of research on coping strategies in the work-family literature (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). So far, the emphasis in work-family studies has been on the role of social support and family-friendly policies (Anderson, Coffey, & Byerly, 2002; Aryee, Fields, & Luk, 1999; Behson, 2002; Hammer, Neal, Newsom, Brockwood, & Colton, 2005). Less has been done on personal strategies used to cope with work-family conflict.

Lazarus and Folkman (1984) categorised coping into two types, problem-focused and emotion-focused coping. Problem-focused coping refers to efforts to define problems and to eliminate or circumvent the sources of stress, while

emotion-focused coping is the attempt to reduce emotional distress by managing feelings and emotions via cognitive manipulation. Coping strategies have been discussed by researchers in various organisational contexts. For instance, problem-focused coping was found to increase employees' job satisfaction and reduce their withdrawal intention (Boyd, Lewin, & Sager, 2009). Further, problem-focused coping was found to moderate the effect of role stress on emotional exhaustion (Lewin & Sager, 2009). In particular, employees who experienced role conflict and role ambiguity will be less emotionally exhausted when engaging in problem-focused coping (Lewin & Sager, 2009).

As for emotion-focused coping, the research findings are inconsistent. While Ingledew, Hardy and Cooper (1997) reported positive effects of emotion-focused coping on well-being, another study found that this type of coping is detrimental to one's health (Boyd et al., 2009). Boyd and colleagues (2009) found that individuals who utilised emotion-focused coping as a response to role conflict showed higher levels of emotional exhaustion and job anxiety than those who utilised problem-focused coping. Different findings on the effects of emotion-focused coping on individuals' well-being could be attributable to the broad categories of coping (Dewe & Guest, 1990) and the universal coping strategies measured by research (Newton & Keenan, 1985). For example, Folkman and Lazarus (1985) defined emotion-focused coping as wishful thinking, distancing, emphasising the positive, self-blame, tension reduction and self isolation, whereas another study (Rosario, Shinn, Mørch, & Huckabee, 1988) defined it as resignation, denial, anger, controlling feelings, humour, taking a break, physical activity and socialising with others. To overcome this limitation, the present study

adopted the specific problem-focused and emotion-focused coping strategies that relate to the work-family interface.

Work-family facilitation occurs when participation in work and family roles benefit each other. Specifically, work-family facilitation represents the extent to which individuals' involvement in their work role makes it easier for them to fulfil the requirements of their family role and vice versa. According to Barnett (1998), despite consistent evidence of the benefits of work-family facilitation on well-being, this area has been largely ignored by researchers and policy makers. Existing studies focus on work-family facilitation either as an antecedent (Aryee, Srinivas, & Tan, 2005; Balmforth & Gardner, 2006) or an outcome (Butler, Grzywacz, Bass, & Linney, 2005; Grzywacz & Butler, 2005). For example, work-family facilitation improved physical health and well-being (Grzywacz, 2000), increased job satisfaction and organisational commitment (Aryee et al., 2005).

Based on the existing literature on work-family facilitation, a meta-analytic review by McNall, Nicklin, and Masuda (2009) suggested that future research on this construct should examine the influence of work-family facilitation on work-related behaviours, including turnover intentions. There was also a call for new work-family researchers to explore work and family theories, develop new measures, and come out with new methodologies in researching this construct (Greenhaus & Powell, 2006). In addition, to date there is no study on employed women in a non-Western society known to the researcher, which examines work-family facilitation as a moderator of the relationship between work-family conflict and well-being.

Therefore, another major contribution of this study is to examine the direct effect of work-family facilitation on well-being (including work-related and non work-related behaviours as well as mental health) and the moderating effect of work-family facilitation on the relationship between work-family conflict and well-being. A moderating effect is obtained when the relationship between the predictor and outcome variable varies due to the third variable (which is referred to as the moderator variable). By understanding the role of work-family facilitation in employed women's lives, organisations and policy makers will be able to develop programmes and policies that will benefit the employees and enhance their productivity. In return, the employees will optimally serve the organisations they work in.

Why Malaysians?

As most research on work and family issues has been conducted predominantly in Western countries, the findings cannot be simply generalised to Malaysians, who have different cultural traditions, societal values, work ethos, and family structures. Malaysia is widely accepted as a collectivistic society in which a collective goal such as family well-being is more valuable than individual goals (Hofstede, 1991). Family is considered as the core element of the social structure. This is in contrast with the Western orientation toward individualism, in which an individual's interest is a priority compared to the group's interest. As a collectivistic society, Malaysians value interpersonal harmony and the importance of family, which are manifested in cultural norms and behaviours. Malaysian women are expected to place their roles as wives and mothers above all others, while men are expected to be the breadwinners for the family (Hossain et al.,

2007). They are likely to feel obliged as the primary caretakers of the family and they may feel guilty if they do not attend to home-related responsibilities. This gender role expectation resulted from a complex amalgam of traditional Malay custom, Muslim law, as well as social, political, and legal developments (Kennedy, 2002).

With respect to cultural differences in coping strategies, research suggests that generally individuals in Asian countries tend to utilise emotion-focused coping in comparison with individuals in Western cultures (Gould, 1999). For instance, one study found that Malaysians scored higher in emotion-focused coping than North Americans and Germans (Essau & Trommsdorff, 1996). The dissimilarity between Malaysia and Western countries in coping strategies could be attributable to cultural differences related to individualism-collectivism. Unlike the Western culture which is characterised by an individualistic orientation, people in collectivistic cultures such as Malaysia accommodate the needs of others rather than their own needs. As a collectivistic society that values harmony, Malaysian culture discourages individuals from displaying assertive behaviours such as willingness to speak up more or voice their opinions, for fear of appearing to be arrogant in front of others (Schermerhorn, 1994). This cultural value might shape their coping strategies when dealing with daily hassles and stressful events in life.

As for work-family facilitation, to date there is very little published research known to the researcher concerning women in Malaysia. Only recently have Malaysian researchers begun to examine the antecedents of work-family facilitation (Sabil, Marican, & Lim, 2011) and the mediating effects of work-family facilitation on stress-well-being relationship (Mustapha, Ahmad, Uli, &

Idris, 2011; Rashid, Nordin, Omar, & Ismail, 2011). Thus, this issue deserves empirical investigation in order to seek a thorough understanding of work-family facilitation within a cultural perspective, since most studies on work-family issues were conducted in Western countries that value individualism as opposed to collectivism (Allis & O'Driscoll, 2008; Balmforth & Gardner, 2006; Beutell & Wittig-Berman, 2008).

In an individualistic society, the relationship among individuals is loose and individuals are expected to prioritise their own goals above others (Hofstede & Bond, 1988). Personal achievement and accomplishment are obtained through work, and a non-work related demand that interferes with this goal is regarded as competing for individuals' attention. Conversely, in a collectivistic society, all family members including the extended ones are regarded as a group. Individuals usually work to support their families, not as a means for self accomplishment. For instance, it is quite common for single employed women in Malaysia to assist their family financially by sending a significant amount of their salaries to them (Ariffin, 1994).

Similarly, another study found that the main reason for Malaysian women taking part in the labour force is the family's economic interest (Noor, 1999). Although employees benefit from engaging in multiple roles between work and family domains, it is important to note that the experience of work-family facilitation does not necessarily reduce work-family conflict (Grzywacz, 2000). Specifically, individuals might experience work-family conflict and work-family facilitation at the same time. Even though individuals are facing work-family conflict, simultaneously they may have opportunities to learn from each separate role (i.e.

work or family roles), thus increasing the probability of work-family facilitation between domains.

A further strength of the present research lies in its use of a longitudinal design. Even though previous studies found that work-family conflict is associated with decreased well-being such as increased dissatisfaction, job stress, turnover intentions as well as psychological and physical symptoms (Allen, Herst, Bruck, & Sutton, 2000; Kossek & Ozeki, 1998; Netemeyer, Brashear-Alejandro, & Boles, 2004), cross-sectional data were used, which did not allow causal inferences from the findings.

Further, previous cross-sectional studies found that the relationship between work-family conflict and well-being is mixed. That is, some studies partly support that work-family conflict causes well-being (Frone, Russel, & Cooper, 1997; Grant-Vallone & Donaldson, 2001), while some research findings show either no significant relationship at all between work-family conflict and well-being or give support for the opposite view, such as work-to-family conflict (WFC) may be a result of stress reactions (Kelloway, Gottlieb, & Barham, 1999). In order to find out whether work-family conflict acts as a predictor of well-being, this study examined the potential causality between work-family conflict and well-being longitudinally.

Another advantage of a longitudinal study is that it may assess patterns of change in variables over time. In the present study, the researcher examined the effects of work-family conflict on well-being over time. Specifically, the changes were investigated by testing the effects of work-family conflict at Time 1 on changes in well-being at Time 2 (six to eight months later). For instance, previous cross-sectional research suggested that work-family conflict is related to various

adverse health outcomes (Bull & Mittelmark, 2009; Wang, Afifi, Cox, & Sareen, 2007). However, a longitudinal study carried out by Frone, Russel and Cooper (1997) found work-family conflict was related to elevated alcohol consumption but not associated with increased levels of negative health outcomes such as depression, poor physical health and hypertension. Given the differences in the empirical findings between cross-sectional and longitudinal studies, the present study examined changes in variables over time, for a better understanding of the causal relationship between variables.

Moderating effects are more difficult to be demonstrated in longitudinal studies because the prior state of outcomes (outcomes at Time 1) are controlled (Dormann & Zapf, 1999). However, due to their practical implications, the effects of moderator variables on the relationship between work-family conflict and well-being are worth examining in longitudinal research. Specific coping strategies and work-family facilitation might become the starting point for Malaysian organisations to develop work-family programmes that target both employees' and organisational needs. Such programmes might assist employees in managing conflict and sharpen their ability to be attentive to their role-related responsibilities, both at work and home. In addition, supervisors and managers might create an environment that allows employees to achieve work-family balance within the organisation by creating awareness among the employees of the importance of benefits received by them when combining work and family roles.

Structure of the thesis

This thesis is divided into nine chapters. A chapter overview is included at the beginning of every chapter. A brief outline of all chapters is as follows:

Chapter 1: Introduction

Chapter 1 presents the background to the research on work and family in relation to individuals, families, organisations, and the society as a whole. This chapter also discusses relevant issues related to work and family and the significance of conducting this study. The thesis structure was also included at the end of this chapter.

Chapter 2: Review of the literature

Chapter 2 presents an overview of the underlying conceptual frameworks used in this research. This chapter also includes a review of the previous literature on the variables in the present study. The conceptualisations of work-family conflict, coping, work-family facilitation, psychological strain, turnover intentions, and satisfaction based on the findings of the previous research are discussed.

Chapter 3: Theoretical framework and hypotheses development

Chapter 3 presents an overview of the development of a theoretical model for the prediction of work-family conflict, coping, and work-family facilitation on well-being (psychological strain, turnover intentions, and satisfaction). By taking the findings of previous research into consideration, a new theoretical framework was developed to address the roles of different dimensions of work-family facilitation as moderators and mediators, and the roles of coping strategies as moderators of

the relationship between work-family conflict and well-being. This chapter also describes all the variables involved and discusses the hypotheses tested in this study.

Chapter 4: Research methodology

Chapter 4 presents the research design, the procedures of data collection, the development of instruments and the data analyses plan.

Chapter5: Psychometric analyses

Chapter 5 presents the results of confirmatory factor analyses of each measure used in this research. This chapter also describes the ways of handling outliers and missing values, as well as the reliability and normality analyses of the research measures.

Chapter 6: Time 1 results

Chapter 6 presents the main, moderating and mediating effects at Time 1. This chapter describes the means, standard deviations, and correlations at Time 1. The multivariate analyses of the main effects of work-family conflict, coping strategies, and work-family facilitation at Time 1 are also presented. In addition, the moderation effects of coping strategies and work-family facilitation on the relationship between work-family conflict and well-being at Time 1 are described. The mediation effects of work-family facilitation dimensions on the relationship between work-family conflict and well-being at Time 1 are also presented.

Chapter 7: Time 2 results

Chapter 7 presents the main, moderating and mediating effects at Time 2. This chapter includes the descriptive statistics and correlations at Time 2. The multivariate analyses of the main effects of work-family conflict, coping strategies, and work-family facilitation at Time 2 are also described. Additionally, the moderation effects of coping strategies and work-family facilitation on the relationship between work-family conflict and well-being at Time 2 are presented. The mediation effects of work-family facilitation dimensions on the relationship between work-family conflict and well-being at Time 2 are also presented.

Chapter 8: Longitudinal results

Chapter 8 presents the longitudinal main, moderating and mediating effects in order to address the causal hypotheses in this study. This chapter discusses the descriptive statistics and correlations, the multivariate analyses of main and moderation effects using hierarchical regression, and the mediation analyses using structural equation modelling over time.

Chapter 9: General discussion

This chapter discusses the findings and contributions of this study, as well as its implications for future research and existing practice in this area. This chapter also includes the strengths and limitations of this study and recommendations for future research.

Chapter summary

Firstly, despite the growing evidence of the effects of work-family conflict on well-being, the moderating roles of coping and work-family facilitation in the work-family interface are not well-researched. Secondly, although research on work-family conflict has been extensively conducted in Western countries, studies in the Malaysian population are still limited. Given the differences in family and cultural values as well as work ethos, the findings from Western studies cannot be simply generalised to Malaysians. Thirdly, a longitudinal study on work-family conflict, coping and work-family facilitation is needed in order to create a basis for organisations to develop better programmes that may assist their employees in dealing with work-family conflict, and at the same time contribute efficiently to the organisation.

CHAPTER 2

REVIEW OF THE LITERATURE

Chapter Overview

This chapter discusses the review of literature on work-family conflict, coping, work-family facilitation, and well-being. First, the major theories that have dominated the work and family research are reviewed to provide an overview and background to work-family studies. Second, conceptualisations of work-family conflict, coping, and work-family facilitation are explained, followed by an explanation of the conceptualisations of psychological strain, turnover intention and satisfaction as the consequences of work-family conflict and facilitation, as well as a description of negative affectivity as the control variable used in this study. Finally, the moderating and mediating mechanisms underlying the work-family conflict effects on psychological strain, turnover intention, and satisfaction are discussed.

2.1 Theoretical foundation of work-family conflict and facilitation

Work-family research has investigated work and family issues from various theoretical approaches. While some researchers advocate that work and family are two separate spheres (Kanter, 1976; Lambert, 1990), other researchers argued that work and family domains are interrelated with one another (Kirrane & Buckley, 2004; Staines, 1980). This section presents five work-family theories to illustrate the relationship between work and family domains. The theories include

segmentation theory, spillover theory, compensation theory, role theory, and conservation of resources (COR) theory.

2.1.1 Segmentation theory

Segmentation theory asserts that work and family are two separate domains and distinct from one another (Edwards & Rothbard, 2000). The family domain is viewed as a means to achieve affectivity, intimacy, and significant relationships, while work is viewed as a competitive, impersonal, and instrumental domain (Piotrkowski, 1979). According to Evans and Bartolomé (1984), individuals may succeed in one domain (e.g., work) without any influence from the other domain (e.g., home). Some researchers (e.g., Eckenrode & Gore, 1990) suggested individuals form a clear boundary between work and family in terms of time, space, and function, so that they can compartmentalise their lives effectively. Research supporting this notion has found that high work and family was associated with less work-family conflict (Kreiner, 2006), such that when employers supported work-family segmentation, employees have reported experiencing less work-family conflict.

However, other researchers (Bulger, Matthews, & Hoffman, 2007) argued that more permeable and less flexible boundaries between work and life domains were related to more interference. For instance, perceptions that the organisation encouraged segmentation between work and non-work domains were negatively related to organisational commitment (Kirchmeyer, 1995). That is, employees who perceived their organisation as treating work and non-work as segmented spheres tended to be less committed toward the organisation. Previous findings suggest it is very difficult to separate work and family domains entirely in one's

life because they are parts of everyday reality. Thus some researchers (Rothbard & Dumas, 2006) argue that, in spite of being separated, work and family domains are interconnected. This is explained by spillover theory.

2.1.2 Spillover theory

Spillover theory is one of the most prominent theories in studying the work-family interface (Grzywacz, Almeida, & McDonald, 2002). This theory postulates that there are permeable boundaries between work and family (Greenhaus & Parasuraman, 1987). Therefore, the experience, feelings, and thoughts originating in one domain (e.g., family) may spill over into another domain (e.g., work). According to Madsen and Hammond (2013), spillover theory provides a basic concept that underpin the assumptions of role theory. Role theory will be discussed in Section 2.1.4.

The spillover effects can either be positive or negative. Positive spillover occurs when the sense of accomplishment and satisfaction in one domain (e.g., work) are transferred to another domain (e.g., home). For instance, a clerk who has successfully accomplished all tasks at work may feel happy and contented when at home. Past research supporting this theory found that positive affective spillover was negatively related to depression over time (Hammer, Cullen, Neal, Sinclair, & Shafiro, 2005), such that high positive affect associated with positive spillover among individuals leads to elevated emotional health and decreases depressive tendencies. Another research found that co-worker and supervisor supports were positively associated with positive spillover (Grzywacz & Marks, 2000).

Negative spillover, on the other hand, occurs when problems and difficulties in one domain spill over into another domain, results in harmful effects. For example, distress at work may affect the nature of interactions with family members at home. This was supported by past research which found that presence of pre-school aged children was associated with increased with negative family-to-work spillover among women (Stevens, Minnotte, Mannon, & Kiger, 2007). Additionally, negative spillover was related to elevated stress and reduced job satisfaction (Lourel, Ford, Gamassou, Guéguen, & Hartmann, 2009).

While spillover theory stresses the positive correlation between work and family domains, some researchers argue that a negative correlation is possible between work and family spheres (Staines, 1980). This is explained by compensation theory.

2.1.3 Compensation theory

Unlike spillover theory, which suggests a carry-over effect from work to family life and vice versa, compensation theory proposes that negative experiences in one role can be compensated by positive experiences in the other role (Rothbard, 2001). For instance, dissatisfaction with one role (e.g., work) might lead an individual to devote more time and energy to the other role (e.g., home). To illustrate, working women who enjoy doing household roles may spend less time and energy to accomplish their work roles, whereas those who dislike the household roles may spend more time devoted to work roles.

Baltes and Heyden-Gahir (2003) argued that individuals high in compensation will be more successful at dealing with competing roles of work and family because although resources are limited, they will be more likely to

maximise and fully utilised the resources. Previous research supporting this theory found that sick leave option has a significant positive effect on organisational profit because the knowledge of the availability of sick leave may increase employees' productivity through increased job contentment or reduced employees stress (Meyer, Mukerjee, & Sestero, 2001).

The above theories (segmentation, spillover, and compensation theories) explained the linkage between work and family roles. Researchers have recognised employees participation in the workforce (Moore, Sikora, Grunberg, & Greenberg, 2007) and the demands at work that might limit their family roles (Karimi & Nouri, 2009). The perspective of role theory on work and family is explained next.

2.1.4 Role theory

Role theory was derived from the work of Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) and is based on the concept of human energy and the effects of multiple roles on health and well-being. Role theory can be divided into two categories: role strain and role accumulation. Role strain focuses on harmful effects and energy limitations, while role accumulation emphasises beneficial effects and gratifications resulting from engagement in multiple roles. Both role strain and role accumulation views provide major theoretical grounds for most of the work-family literature (Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009).

Role Strain

Role strain theory postulates that the amount of attention, energy, and time possessed by individuals is limited (Goode, 1960) and is the basis for interrole conflict or work-family conflict. Participation in one role may have a negative effect on performance in the other role. According to this view, if one conforms to the responsibilities at work, fulfilling responsibilities at home would be difficult, over-demanding and stressful. Hence, a person might experience a state of conflicting demands between work and family roles.

Several studies in Western countries have shown that when the demands of multiple roles compete to create role conflict among women, elevated depression and poor physical health results (Frone et al., 1997; Frone et al., 1996). Previous research supported this theory and found that family roles such as having children under the age of six and less satisfactory child care arrangements and work roles such as more demanding jobs and less workplace support contributed significantly to higher levels of strain (Scharlach, 2001). However, a research by Holahan and Gilbert (1979) revealed that greater role conflict due to engagement in multiple roles was reported by non-professionals than the professionals. Perhaps, the professionals possessed more self confidence and independence than the non-professionals and such traits were found to be relevant to successful management of multiple role demands (Holahan & Gilbert, 1979). Hence, engagement in multiple roles might benefit individuals and this is explained next.

Role Accumulation

In contrast to role strain, role accumulation argues that individuals' participation in one role benefits their performance in another role because they may gain rewards by participating in those domains and their resources are abundant and expandable (Marks, 1977; Sieber, 1974). Researchers (e.g., Greenhaus & Powell, 2006) suggested that role accumulation underlies the notion of work-family facilitation or work-family enrichment. According to Sieber (1974), individuals earn multiple rewards when participating in work and family domains, such as more role privileges (e.g., job control and job autonomy) and greater status enhancement (e.g., networking and invitations to social gathering). Additionally, Marks (1977) stressed that certain roles such as being a parents at home might create energy (e.g., enjoyment and happiness) for individuals and the energy benefits them when they perform other roles (e.g., be in a good mood at work).

This perspective was supported by empirical research in which work-family facilitation was found to be negatively related to distress (Shimada, Shimazu, Bakker, Demerouti, & Kawakami, 2010) and intentions to leave (Russo & Buonocore, 2012). Past studies also shown that work-family facilitation predicted better physical health, lower absenteeism, and increased job performance over time (van Steenbergen & Ellemers, 2009). As resources are important for role accumulation, Hobfoll (1989) expanded the role of resources in his theory, conservation of resources theory (COR). The next section discusses COR in relation to work and family.

2.1.5 Conservation of resources (COR) theory

The conservation of resources (COR) theory (Hobfoll, 1989) proposes that individuals are motivated to acquire, maintain, and protect resources, such as self-esteem, socio-economic status, and employment, in order to deal with work and family demands. According to Hobfoll (1989), the most threatening condition is the potential or actual loss of resources. This COR theory is applied in stress and motivation studies and it explains how and what resources are invested to achieve a more positive state when individuals are in stressful circumstances (Halbesleben & Wheeler, 2008). For instance, Halbesleben, Harvey, and Bolino (2009) found that conscientiousness buffered the effect of organisational citizenship behaviour (OCB) on WFC such that those who were highly conscientious experienced lower level of WFC than employees who were less conscientious although in the presence of OCB. The findings suggest that when individuals were so engaged in their work roles such as OCB, they have fewer resources (e.g., time and energy) to devote to family roles. However, personal resources such as personality traits (conscientiousness) might weaken the relationship between OCB and WFC.

Resources can be defined as anything that is valued by individuals such as self-esteem, monetary rewards, coping, work-family facilitation, and work-life balance. Hobfoll (2002) categorised resources into four types: (a) personal characteristics (self-esteem, mastery, coping, optimism), (b) objects (house and transportation), (c) conditions (physical and mental health), and (d) energies (time, knowledge, work-family facilitation, and skills). According to Hobfoll (1989), negative experiences in the work and family domains threaten individuals' resources and, as a result, they might lose their status, position, and economic stability. Therefore, striving to maintain the status quo so that the acquired

resources will not be lost is more salient than gaining new resources. In relation to this, individuals with work-family conflict experience a resource loss cycle, which is harmful to their health and well-being.

However, Hobfall (2002) argued that individuals with resources such as strong social support might obtain better health and well-being. Those individuals are more resistant to the loss of resources and are able to find solutions to their problems. As noted in the literature, individual differences such as coping (Hobfoll, 1989) and work-family facilitation (McNall et al., 2009) can be viewed as valued resources in individuals' lives. For example, psychological distress following the death of a closed family member (resource loss) might be reduced with the effective utilisation of coping (resource gain). Existing research on work-family interface supports COR theory. To illustrate, previous study found that compartmentalisation might act as a coping technique that allows professors to maintain their resources such as self-esteem and energy and to minimise resource loss (Grandey & Cropanzano, 1999). Additionally, Grandey and Cropanzano (1999) suggested future researchers to assess personal coping techniques such as problem- and emotion-focused coping on stress-strain relationship. Another research by Rotondo and Kincaid (2008) found that positive thinking was only positively related to work-family facilitation, but not work-family conflict. This finding supported COR theory (Hobfoll, 2001), because individuals often view work as something they do to increase family's well-being.

In the context of the present study, coping and work-family facilitation are considered as two important resources that may enhance individuals' well-being.

2.2 Conceptualisation of work-family conflict, work-family facilitation, coping, and criterion variables

This section presents the conceptualisation of all variables in this study including work-family conflict, coping, work-family facilitation, and all the criterion variables (psychological strain, turnover intention, and satisfaction) which were investigated.

2.2.1 Work-family conflict

Work-family conflict defined

Work-family conflict occurs when incompatible pressures arising from participation in work roles interfere with the participation in family roles. Different terminologies have been used by various researchers when referring to work-family conflict, such as work- family interference, interrole conflict, work-family role incompatibility, negative spillover, and work-family tension. Regardless of the different terms used to describe work-family conflict, researchers agree that this type of conflict results from excessive demands in one domain (e.g., work) and it negatively affects the other domain (e.g., family). That is, when individuals have limited time, energy, and skills to spend in various life domains, it is necessary for them to ignore the demands of one domain (e.g., family) in order to satisfy the demands of another domain (e.g., family). The imbalance in role participation between different domains may cause conflict within individuals when both domains are important to them (Shaffer, Harrison, Gilley, & Luk, 2001).

The concept of work-family conflict has changed over time. Researchers have acknowledged the dual directions (Kossek & Ozeki, 1998; O'Driscoll, Ilgen,

& Hildreth, 1992; Stewart, 2013) and multiple forms (Greenhaus & Beutell, 1985) of work-family conflict. Work-family conflict may occur when work demands interfere with family demands, referred to as work-to-family conflict (WFC), or family demands interfere with work demands, referred to as family-to-work conflict (FWC).

Types of work-family conflict

Researchers working in this area (e.g., Griggs, Casper, & Eby, 2012) have also suggested three major forms of work-family conflict, which include time-, strain-, and behaviour-based conflict. Time-based conflict occurs when participation in one role (e.g., work) competes for individuals' time and results in a conflict between the roles. According to Greenhaus and Beutell (1985), time-based conflict occurs when time pressures in one role (e.g., work) makes it physically impossible for individuals to fulfil the expectations in another role (e.g., family). For example, an employee is unable to join family vacation due to an important meeting at work during weekends. If both events are important to the employee and neither event can be rescheduled, the employee is likely to experience work-family conflict.

Strain-based conflict takes place when strains in one role (e.g., work) impinge on performance in the other role (e.g., family). For example, stress at work due to high work overload or poor person-job fit might produce strain symptoms such as anxiety, tension, anger, and worry. If these strain symptoms are brought home, employees might experience negative emotions and face difficulties to interact with family members that make it difficult to continue a satisfying family life (Greenhaus & Beutell, 1985).

Behaviour-based conflict results when specific behaviours required in one role (e.g., work) are incompatible with the expected behaviours in another role (e.g., family). For example, employees are expected to be aggressive, firm, and objective at work but warm, nurturing, and loving at home. If the employees are unable to adjust the behaviours at work and at home, they might experience conflict between work-home domains.

Empirical studies (e.g., Ferguson, Carlson, Hunter, & Whitten, 2012; Frone et al., 1992) suggested that WFC and FWC may have different causes and effects (e.g., Adkins & Premeaux, 2012; Byron, 2005; Cheung & Wong, 2013; Cho, Tay, Allen, & Stark, 2013; DiRenzo, Greenhaus, & Weer, 2011) and therefore the directions (WFC and FWC) and types (time-, strain-, and behaviour-based conflict) of work-family conflict are examined separately in the present study. Previous cross-sectional studies categorised antecedents and outcomes of work-family conflict based on domain-specificity aprroach (Rantanen, Mauno, Kinnunen, & Rantanen, 2011) or source attribution approach (Shockley & Singla, 2011).

Domain specificity versus source attribution approach

Domain specificity approach that was introduced by Frone, Russel, and Cooper (1992), who asserted that job involvement and job stressors are antecedents of WFC, which affects family distress, whereas family involvement and family stressors are considered as the antecedents of FWC, which in turn relates to job dissatisfaction. For example, Frone and colleagues (1992) found that job stressors and job involvement were significantly positively associated with

WFC while family stressors and family involvement were significantly positively related to FWC.

However, researchers (e.g., Kinnunen, Feldt, Geurts, & Pulkkinen, 2006) have argued that source attribution approach might be more applicable when individuals psychologically attribute the blame onto source domain due to decreased performance in receiving domain (Shockley & Singla, 2011). In other words, when individuals experience WFC, they are more likely to blame their work roles and be dissatisfied with their work rather than the family. For example, previous studies found WFC to be related to various adverse outcomes (Gordon, Whelan-Berry, & Hamilton, 2007; Grandey et al., 2005) such as lower job satisfaction (Gordon et al., 2007; Grandey et al., 2005; Lu, Kao, Chang, Wu, & Cooper, 2008) increased withdrawal and turnover intention (Gordon et al., 2007; Greenhaus, Parasuraman, & Collins, 2001; Kirchmeyer & Cohen, 1999), elevated burnout (Bacharach, Bamberger, & Conley, 1991; Burke, 1988; Innstrand, Langballe, Espnes, Falkum, & Aasland, 2008), higher emotional exhaustion (Kinnunen et al., 2006; Zhang, Griffeth, & Fried, 2012), increased somatic and psychological complaints (Hammer, Saksvik, Nytro, Torvatn, & Bayazit, 2004), and higher depression (Thomas & Ganster, 1995; Yanchus, Eby, Lance, & Drollinger, 2010). Family-to-work conflict (FWC) on the other hand, was found to be related to negative outcomes such as lower life satisfaction and affective commitment (Zhang et al., 2012) as well as marital and parental dissatisfaction (Kinnunen & Mauno, 1998).

Consequences of work-family conflict

Review of the previous literature suggested that the consequences of work-family conflict can be categorised into three groups: strain-related, work-related, and nonwork-related consequences. Empirical research has found that both WFC and FWC was positively associated with increased strain-related consequences such as general, household, and family stress (Vercruyssen & Van de Putte, 2013), higher somatic complaints (Peeters, Montgomery, Bakker, & Schaufeli, 2005), increased psychological strain (Kelloway et al., 1999), higher emotional exhaustion (Zhang et al., 2012), increased depression (Vinokur, Pierce, & Buck, 1999), and higher anxiety disorder (Grzywacz & Bass, 2003).

Another study has also found that FWC was positively associated with hypertension (Frone et al., 1997) over time, indicating a long-term effect of conflicting demands between family and work domains. Other studies found that WFC was associated with eating fewer healthy food (Allen & Armstrong, 2006) and obesity (Grzywacz, 2000), while FWC was associated with less physical activity and eating more fatty food (Allen & Armstrong, 2006). Allen and Armstrong (2006) asserted that fatty food consumption was associated with increased body mass index and reduced general health, whereas less involvement in physical activity was related to poorer health.

Besides strain-related consequences, work-family conflict was also associated with various negative work outcomes. For example, previous research has found that work-to-family conflict (WFC) was related to reduced job satisfaction (Glaveli, Karassavidou, & Zafiropoulos, 2013; Gordon et al., 2007; Lu & Kao, 2013; Wang, Lawler, & Shi, 2010), increased turnover intention (Liao, 2011; Steinmetz, Frese, & Schmidt, 2008; Zhang et al., 2012), and decreased

affective commitment towards organisation (Liao, 2011). However, a meta-analytical study on the consequences of work-family conflict indicated that both WFC and FWC were related to work outcomes, but the correlations between WFC and work-related outcomes were higher than the correlations between FWC and work-related outcomes. The findings indicated that although WFC and FWC were associated with work outcomes, the association between WFC and work outcomes were stronger than the association between FWC and work outcomes, supporting the source attribution approach discussed earlier.

Additionally, previous research has found that work-family conflict was associated with nonwork-related outcomes. For instance, FWC was related to reduced family satisfaction (O'Driscoll, Brough, & Kalliath, 2004), increased parental distress (Kinnunen, Geurts, & Mauno, 2004) and decreased life satisfaction (Zhao, Qu, & Ghiselli, 2011). Another study has found that life satisfaction of Hong Kong Chinese employees was influenced by WFC while that of US employees was influenced by FWC (Aryee, Fields, et al., 1999). Aryee and colleagues (1999) argued that WFC might be threatening to family identities when work demands interfere with family roles because family is the central concern in Confucian culture. However, in individualistic culture, individuals' identities are often related to their careers and when family demands interfere with work roles, FWC might be viewed as more threatening to their life satisfaction. The findings indicated the important role of culture in perceiving work-family conflict.

2.2.2 Work-family facilitation

Previous work and family research mainly focused on the negative connection between work and family and ignored the positive side of it (Adams & Jex, 1999; Yang, Chen, Choi, & Zou, 2000). Consequently, more researchers started to explore the positive synergies of work and family. Various terminologies were used to describe this positive connection, including work-family facilitation, work-family enrichment, work-family engagement, positive spillover, and work-family enhancement. To be consistent, the term work-family facilitation is used throughout this thesis when referring to the positive experience of combining work and family.

Types of work-family facilitation

Work-family facilitation is defined as the extent to which experiences in one role (e.g., work) improves the quality of life in the other role (e.g., family) (Greenhaus & Powell, 2006). Similar to work-family conflict, work-family facilitation is also bidirectional (Hill, 2005). Specifically, resources at work may facilitate family domain (work-to-family facilitation) and benefits derived from family may be applied to work (family-to-work facilitation).

Greenhaus and Powell (2006) classified work-family facilitation into two; instrumental and affective work-family facilitation. Instrumental work-family facilitation occurs when resources such as skills, psychological and physical resources, social capital resources, flexibility, and material resources that are transferred directly from one role (e.g., work) to another (e.g., family) increase performance in the other domain. For instance, good time management at work helps an individual to manage household chores and childcare at home efficiently.

Affective work-family facilitation takes place when resources generated in one role (e.g., work) promote positive affect in that role, which in turn create positive emotion in the other domain (e.g., family). For example, if individuals are praised for good task accomplishment at work, they will be in a good mood and spirit at home.

Consequences of work-family facilitation

Empirical studies indicated that both directions of work-family facilitation (WFF and FWF) ware associated with work and non-work outcomes. Work-to-family facilitation (WFF) is associated with lower turnover intention (Russo & Buonocore, 2012), increased job satisfaction (Balmforth & Gardner, 2006; Hunter, Perry, Carlson, & Smith, 2010), higher organisational commitment (Gordon et al., 2007), better physical health (such as lower cholesterol level and better physical stamina) (van Steenbergen & Ellemers, 2009). Family-to-work facilitation (FWF) is positively associated with job satisfaction and organisational commitment (Aryee et al., 2005), organisational citizenship behaviour (Balmforth & Gardner, 2006), lower likelihood of being overweight (van Steenbergen & Ellemers, 2009), elevated family satisfaction (Nicklin & McNall, 2013), and increased family functioning (Carlson, Grzywacz, & Zivnuska, 2009). While some researchers agree that the outcomes of work-family facilitation are domain-specific (e.g., Nicklin & McNall, 2013), others did not find any difference in the outcomes of WFF and FWF (e.g., Balmforth & Gardner, 2006; van Steenbergen & Ellemers, 2009).

In addition, McNall and colleagues (2009) discovered mixed effects of work-family facilitation on turnover intention. While some studies found that

individuals with FWF experienced low intentions to leave (e.g., Balmforth & Gardner, 2006), Gordon and colleagues (2007) found FWF to be associated with high intentions to leave among older women. One possible explanation for this finding is that family experiences which help the older women perform their jobs better are valuable enough for them to leave their jobs (Gordon et al., 2007).

2.2.3 Coping

Coping approaches

Over 40 years, coping has been the central interest in stress literature (Somerfield & McCrae, 2000). Despite the fact that coping has been long researched, there is little agreement on the meaning and categories of coping. There are three approaches that can best describe the concept of coping, namely the transactional, psychoanalytic, and personality approaches. The most cited definition of coping in the literature is the transactional view by Lazarus (1999), in which coping is defined as continuous behavioural and cognitive efforts made by individuals to deal with environmental and/or internal demands which are perceived as conflicting or exceeding their resources.

According to transactional approach, the concept of coping as a distinct field originated from the early work of Lazarus in 1966, in which he argued that coping is a process. The process includes (a) primary appraisal, which is when individuals perceive a threat, (b) secondary appraisal, which is when individuals engage in cognitive processes on how to respond to the threat, and (c) coping, which is when individuals execute a response to the threat (Lazarus & Folkman, 1984). In other words, stress is not in an individual or in the environment, but in the constant and continuous transaction between both of them (Lazarus, 1993).

The psychoanalytic approach argued that coping mainly involves defence mechanisms, where individuals used various techniques such as realistic thoughts and actions to solve problems (Lazarus & Folkman, 1991). Other researchers characterised coping as a personality trait such as hardiness (Lefcourt, 1985). This approach views coping and personality as overlapping and inseparable.

Types of coping

Based on those three approaches (transactional, psychoanalytic, and personality), coping has been classified into specific methods. For example, Folkman and Lazarus (1980) distinguished between problem-focused and emotion-focused coping. Problem-focused coping involves attempts to manage stress by either directly changing the situation. Emotion-focused coping refers to attempts made to regulate individuals' emotional responses to a stressful situation. Another example is the classification of coping by Billing and Moos (1984) into (a) active-cognitive, referring to cognitive attempts made by individuals to manage stressful events, (b) active-behavioural, referring to behavioural attempts to deal directly with stressful situations, and (c) avoidance, where individuals avoid direct confrontation with the stressful situation.

In relation to interrole conflict, Hall (1972) introduced three types of coping strategies: (a) structural role redefinition, when individuals change the external and structurally imposed expectations related to their positions, (b) personal role redefinition, when individuals alter their expectations and perception of their own behaviours in specific situations, and (c) reactive role behaviour, when individuals try to find ways to meet all role expectations. Diverse

approaches and different classifications of coping make the meaning more complex and debatable.

Consequences of coping

Research on coping has generally found problem-focused coping to be more effective than emotion-focused and avoidance coping when individuals deal with stressful situations at work (Bhagat, Allie, & Ford, 1995; Rotondo & Perrewé, 2000). For example, Rotondo, Carlson, and Kincaid (2003) found that problem-focused coping was associated with a lower level of FWC (help-seeking and direct action), while emotion-focused coping (avoidance/resignation coping) was associated with higher levels of WFC and FWC. Positive thinking (a type of emotion-focused coping) on the other hand was not associated with either WFC or FWC (Rotondo et al., 2003). According to Lazarus and Folkman (Lazarus & Folkman, 1984), when situations are amenable to change, problem-focused coping is more likely to be effective in managing work-related stressors than emotion-focused coping.

Problem-focused coping reflects the tendency to tackle problems and execute plans to reduce conflict. If the problem is changeable such as less time available for children at home due to high workload, the utilisation of problem-focused coping (e.g., hiring a home helper) might reduce FWC. However, if a problem is not changeable such as the death of a closed family member, using problem-focused coping might not be effective. In this situation (death of a family member), emotion-focused coping such as positive reappraisal might be more suitable in accepting the tragedy and cope with it.

Research has also shown that individuals might utilise both problem-focused and emotion-focused coping to cope with stressful situation (Dewe, 2003) such as when individuals are absent from work because one of their childern has been diagnosed with cancer. Initially, the parents might use emotion-focused coping to accept and cope with the situation. Subsequently, they might utilise problem-focused coping by planning on their daughter's medication and treatment and applying for leave from work. In the above situation, both types of coping seems to be necessary when responding to the stressful situation (Lazarus & Folkman, 1984). Rotondo and colleagues (2003) also asserted that there was no one best coping strategy exists, in which some coping strategies might work for an individual in certain situation, but not with others.

2.2.4 Well-being

Early work-family studies indicate that work-family conflict is related to adverse well-being including elevated psychological strain (Kelloway et al., 1999), reduced satisfaction (Glaveli, Karassavidou, & Zafiropoulos, 2013; Gordon et al., 2007; Lu & Kao, 2013; Wang, Lawler, & Shi, 2010), increased turnover intention (Liao, 2011; Steinmetz, Frese, & Schmidt, 2008; Zhang et al., 2012), as well as poor mental and physical health (Peeters, Montgomery, Bakker, & Schaufeli, 2005). The present study focused on three categories of well-being: psychological strain as the health-related outcome, turnover intention and job satisfaction as the work-related outcomes, as well as family and life satisfaction as the nonwork-related outcomes.

Psychological strain

Psychological strain refers to a state of emotional distress as a result of perceived threatening situations to one's well-being. According to Warr (2002), psychological strain is often measured in terms of general distress or a combination of anxiety and depression. The General Health Questionnaires (GHQ), a self-report instrument developed by Goldberg (1978) has been frequently used to measure psychological strain. The GHQ focuses on several aspects including feeling unhappy, depressed, and constantly under strain, losing sleep because of worries, and ability to concentrate on tasks. The General Health Questionnaire (GHQ-8), which consists of eight items representing social dysfunction and anxiety/depression (Kalliath, O'Driscoll, & Brough, 2004) was utilised to measure psychological strain in this study due to stronger support for a two-factor model of the GHQ in comparison to one-factor and three-factor models (Ip & Martin, 2005; Smith, Fallowfield, Stark, Velikova, & Jenkins, 2010). The two-factor GHQ-8 model is also parsimonious and the subscales are uni-dimensional (Vanheule & Bogaerts, 2005).

In this research, psychological strain was measured as an outcome of work-family conflict. Researchers found that role ambiguity, role conflict, and role overload predicted psychological strain (Bhagat et al., 2010). In addition, family variables such as the absence of spouse and the presence of children (Takeuchi, Wang, & Marinova, 2005), and work variables such as high workload (Ilies, Dimotakis, & De Pater, 2010) and role clarity (McDougall & Drummond, 2010) were also related to psychological strain. Many studies have found strong relationships between WFC and psychological strain (e.g., Allen et al., 2000; Kinnunen et al., 2006). However, a four-year longitudinal study conducted by

Frone and colleagues (Frone et al., 1997) indicated no positive relationships between WFC and psychological strain over time. However, FWC was positively associated with psychological strain over time. Given the inconsistent findings between cross-sectional and longitudinal studies of the association of work-family conflict and psychological strain, the present study aimed to examine the effects of work-family conflict on psychological strain over time.

Turnover intention

Turnover intention is among the most widely studied work outcomes by researchers for nearly 90 years (Wells & Peachey, 2011). Turnover intention refers to individuals' desires or willingness to leave the organisation where they work (Rafferty & Griffin, 2006). Locke's (1968) model of task motivation suggests that intention is the precursor of behaviour, and the literature has confirmed that turnover intention is the precursor of actual turnover among employees (Cho & Lewis, 2012). Empirical evidence also indicates that work and family stressors such as work and family role stress (Grandey & Cropanzano, 1999), as well as work-family conflict (Blomme, Van Rheede, & Tromp, 2010) were associated with high turnover intention.

According to the conservation of resources (COR) theory, employees with more role stress will try to diminish the negative state of being (Hobfoll, 1989) and therefore might think of leaving the organisation. If they feel distress from work, or if work interferes with their family, the employees might need to eliminate the resource drain by leaving the organization. Thus, most organisations emphasise retention of skilled and experienced employees because replacing them

would be time and money consuming (Holtom, Mitchell, Lee, & Inderrieden, 2005).

Job Satisfaction

According to Locke (1976), job satisfaction is related to individuals' appraisals of their job experience, which in turn results in positive emotional states or pleasurable experience. Similarly, Spector (1997) refers to job satisfaction as the extent to which individuals feel (like or dislike) about their jobs and different aspects of the job. Job satisfaction is an indicator of psychological strain in industrial and organisational psychology because it is often related to many potential organisational stressors (Beehr, 1995).

In relation to work-family interface, Frone and colleagues (1992) argued that the relationships between different directions of work-family conflict (WFC and FWC) and job satisfaction were domain-specific. Earlier studies confirmed this view, in which significant negative relationship was found between FWC and job satisfaction (Aryee, Luk, Leong, et al., 1999; Bagger & Li, 2012; Namasivayam & Zhao, 2007). However, other researchers (e.g., Allen et al., 2000; Bruck, Allen, & Spector, 2002) asserted that the antecedents and consequences of job satisfaction were attributable to the original source, in which high WFC was significantly related to reduced job satisfaction (Wang et al., Frye & Breaugh, 2004; 2010).

Another study conducted by Bruck, Allen, and Spector (2002) found that both WFC and FWC were related to job satisfaction. Similarly, Lambert and colleagues (2006) have found that WFC (behaviour) and FWC (time) were significantly related to job satisfaction. On the other hand, other researchers have

ignored the multidimensionality of work-family conflict and did not distinguish between WFC and FWC. For example, past studies have found that higher work-family conflict was related to lower job satisfaction (Hsu, 2011; Kashefi, 2009).

Family Satisfaction

Family satisfaction is referred to as the extent to which individuals are satisfied with their family lives. Unlike, job satisfaction, family satisfaction has received less attention in organisational studies. Thus, the findings of this study on family satisfaction might fill in a gap within the family satisfaction literature. Previous studies have found that higher WFC were associated with lower family satisfaction (Aryee, Luk, Leong, et al., 1999; Ford, Heinen, & Langkamer, 2007; Grandey & Cropanzano, 1999; Hostetler, Desrochers, Kopko, & Moen, 2012). Such studies confirmed the spillover theory explained earlier in this chapter, which assumes that attitudes from one role carry over to another role (Fredriksen-Goldsen & Scharlach, 2001). On the other hand, empirical evidence in work-family literature revealed that neither WFC nor FWC predicted family satisfaction (Michel & Clark, 2009).

Life Satisfaction

According to Hart (1999), life satisfaction refers to a cognitive appraisal of overall satisfaction in one's life. Therefore, life satisfaction is often seen as the global measure of individuals' overall quality of life and the key indicator of well-being. Generally, organisational studies focus on examining the relationship between work stress and job satisfaction rather than the relationship with overall life satisfaction (Erdogan, Bauer, Truxillo, & Mansfield, 2012).

Although studies on life satisfaction in organisational setting are scant, the literature does provide some useful findings. Previous research found that work variables such as higher job involvement, lower job satisfaction, elevated WFC and FWC (Lambert, et al., 2009), as well as job pressure and job stress (Prottas & Thompson, 2006) were associated with reduced life satisfaction, while job autonomy (Prottas & Thompson, 2006) and high perceived support (Rochlen, McKelley, Suizzo, & Scaringi, 2008) were related to increased life satisfaction. A seven-year longitudinal study found that burnout predicted less life satisfaction but work engagement predicted more life satisfaction over time (Hakanen & Schaufeli, 2012).

2.2.5 Negative affectivity as a control variable

Negative affectivity (NA) is a dispositional component that indicates individual differences in terms of self concept and negative emotionality. Chen and Spector (1991) argued that NA might affect perceived stress by pervasively influencing perception of oneself and/or the environment. Many studies found that NA affects the relationship between stressors and strains (Burke, Brief, & George, 1993; McCrae, 1990; Moyle, 1995) and influences coping effectiveness (McCrae & Costa Jr, 1986). Studies also found that NA is related to organisational citizenship behaviours, withdrawal behaviours, counterproductive work behaviours, and occupational injury (Kaplan, Bradley, Luchman, & Haynes, 2009).

Additionally, a six-month lagged longitudinal study found that NA, which was a stable trait over time, predicted psychological strain and work stressors (Oliver, Mansell, & Jose, 2010). Individuals who are categorised as high in NA

are prone to worry and depression. As such, people who are high in NA will perceive more life stress than those who are low in NA, even when they face identical situations. Hence, the literature suggests that the effects of NA should be partialled out before testing hypotheses related to stressors and strain (Payne, 1988). In the present study, the effects of NA were controlled because NA might be a confound that inflates the relationships between work-family conflict and well-being.

2.3 Moderators of the relationship between work-family conflict and well-being

Within research on the work-family interface, there has been growing interest in how certain work and family variables moderate the relationships of work-family conflict and its outcomes. No study was found that examines the moderating effect of work-family facilitation on the relationship between work-family conflict and well-being among employed women in Malaysia. However recently, researchers have started to investigate the moderating effects of work-family facilitation in stress-strain relationship in Western society. For example, Gareis and colleagues (2009) found that FWF moderated the relationship between FWC and socio-emotional well-being such as mental health, life satisfaction, affect balance, and relationship quality, such that high FWF mitigated the relationship between FWC and well-being especially when FWC was high.

As explained in earlier section (Section 2.2.3), work-family facilitation occurs when resources in one domain (e.g., work) are transferred to the other domain (e.g., family) and enhance the experience in the receiving domain. A previous study (Karatepe, 2011) found that work resources such as job

resourcefulness and family supportive work-family climate were found to moderate the relationships between work-family conflict and work outcomes. Specifically, the effects of WFC and FWC on job satisfaction were weaker among employees with higher job resourcefulness. The results indicated that job-resourceful employees may cope with problems emerging from work–family conflict and thus are less likely to be dissatisfied with their job.

Mauno and colleagues (2006) also found the moderating effects of family supportive work-family climate on the relationships between work-family conflict and organisational commitment. That is, individuals with high family supportive work-family climate reported the highest organisational commitment even in the presence of work-family conflict. Due to the dearth of information on the moderating effects of work-family facilitation on the relationship between work-family conflict and well-being, this study aimed at filling the gap in the literature by examining the possible cross-sectional and longitudinal moderating role of work-family facilitation.

A previous study (Bhagat et al., 2010) also highlighted the differences in coping strategies between individualistic and collectivistic cultural dimensions. Problem-focused coping was found to moderate the relationships between role ambiguity and psychological strain, between role overload and psychological strain, and between role conflict and psychological strain in individualistic cultures (USA and New Zealand) (Bhagat et al., 2010). A strong emphasis on individualistic values shapes people in the individualistic society to make decisions that are not constrained by group preference. As such, they do not hesitate to take action in solving their problems even if they need to confront members of their in-groups (Bhagat et al., 2010).

On the other hand, emotion-focused coping was found to moderate the relationships between role ambiguity and psychological strain, between role overload and psychological strain, and between role conflict and psychological in collectivistic cultures (Spain and Japan) (Bhagat et al., 2010). These findings supported the notion that collectivists prioritise collective goals and prefer to avoid confrontations (Leong, 2001) because they believed that avoiding stressful situation is a better way of coping (Friedman, Chi, & Liu, 2006). However, it is interesting to find that problem-focused coping moderated the relationship of role ambiguity and psychological strain in Japan, a country with a strong collectivist orientation. A possible explanation to this finding is that the Japanese might utilise both types of coping to deal with role ambiguity, in which the use of a coping strategy (e.g., emotion-focused coping) might require the mutual support of another coping strategy (e.g., problem-focused coping) (Dewe, 2003). Due to the variation and unique nature of the moderating effect of coping strategies in collectivistic society, this research aims to understand more about the role of coping among Malaysians.

2.4 Mediators of the relationship between work-family conflict and well-being

According to Eby and colleagues (2005), 31% of the predictive studies in the field of organisational psychology consist of mediators. Mediators represent the mechanism through which the predictors influence the criterion variables. Various work and family variables have been found to mediate the relationship between work-family conflict and its outcomes. For example, Wang and colleagues (2012) found that psychological capital significantly mediated the

relationship of work-family conflict (both WFC and FWC) and emotional exhaustion and cynicism.

The work-family literature asserts that work-family conflict and work-family facilitation are independent of one another rather than being at the opposite ends of a single continuum (Voydanoff, 2005b). Hence, both conflict and facilitation might co-exist in an individual, in which the presence of one construct (e.g., WFF) does not indicate the absence of the other construct (e.g., WFC). Organisational researchers have examined the role of work-family facilitation as a mediator between work demands/resources and well-being. The mediating role of WFF was found between flexible work arrangements (e.g., flextime schedule and compressed work week) and both turnover intention and job satisfaction (McNall et al., 2009). The findings indicate that flextime schedule and compressed work week help employees experience greater WFF, which in turn was related to more job satisfaction and reduced turnover intention.

Recent studies found that WFF mediates the relationship between work variables and work outcomes, while FWF mediates the relationship between family variables and family outcomes. For example, WFF was found to mediate the relationship between supervisor support and job satisfaction (Nicklin & McNall, 2013) and between job characteristics and job outcomes (job satisfaction, affective commitment, and organisational citizenship behaviours) (Baral & Bhargava, 2010). On the other hand, FWF mediated the relationship between family support and family satisfaction (Nicklin & McNall, 2013). This result shows that WFF and FWF are two different directions and each direction has its own mediating role between predictors and criterion variables. Based on the findings of the above studies, this present study examines the mediating role of

WFF and FWF on the relationship between work-family conflict and well-being among Malaysians.

Chapter summary

Empirical studies suggested that work-family conflict and work-family facilitation do not lie on a continuum. Work-family conflict and work-family facilitation represent two different constructs (Gary & Jeffrey, 2006; Grzywacz & Marks, 2000). Therefore, the absence of work-family conflict does not automatically imply the presence of work-family facilitation and vice versa. In addition, individuals who engage in work and family roles may experience both work-family conflict and work-family facilitation at the same time. By examining both sides of the work-family experience (i.e. conflict and facilitation), the present study will contribute to a better understanding of the effects of work-family dynamics on employees' strain.

Even though role strain and role accumulation theories outline differences in explaining the experiences of combining work and family roles, there are two similarities in the above approaches. First, both theories posit that conflict and facilitation result from multiple roles played by individuals. Second, both theories view experiences within work and family domains as reciprocal and bidirectional. Thus, participation in one role will impinge on and affect (either negatively or positively) participation in the other role. In addition, with reference to conservation of resources theory (COR), coping and work-family facilitation can be viewed as valued resources in individuals' lives. Individuals with valued resources, who tend to respond positively to work-family conflict, might experience better well-being. In the context of this study, coping and work-family

facilitation are considered as two important resources that may enhance individuals' well-being. Thus, the moderating roles of coping and work-family facilitation, and the mediating role of work-family facilitation were investigated.

Since the present research aimed to examine the experience of combining work and family roles among employed women, a combination of the above theories was adopted to provide the theoretical background for this study. Both work-family conflict and work-family facilitation were integrated in proposed models that will be discussed in the following chapter (Chapter 3). Furthermore, in order to respond to the recommendations emerging from previous research, the moderating roles of coping and work-family facilitation and the mediating role of work-family facilitation on the relationship between work-family conflict and strain were examined cross-sectionally and longitudinally. The theoretical models and hypotheses of the present study are discussed in the following chapter (Chapter 3).

CHAPTER 3

THEORETICAL MODELS AND HYPOTHESES

Chapter Overview

This chapter presents an overview of the theoretical models for the prediction of work-family conflict, coping, and work-family facilitation on well-being (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction). With reference to the existing literature, new theoretical models were developed to address the roles of different directions of work-family facilitation as the moderators and mediators and the roles of different coping strategies as the moderators of the relationship between work-family conflict and well-being. This chapter describes the variables involved and discusses the direct effect, moderating, and mediating hypotheses tested in this study.

3.1 Theoretical Models

Figure 3.1 (Model A) and Figure 3.2 (Model B) present the theoretical models used in this study. While Model A focuses on the hypothesised moderating effects of coping and work-family facilitation, Model B is a mediation model (work-family facilitation as a mediator on the relationship between work-family conflict and well-being). Model A comprises three parts: (i) predictors (work-family conflict), (ii) moderators (coping and work-family facilitation), and (iii) criterion variables (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction). The first part of Model A includes work-family conflict as the predictor variable. In the present study, work-family conflict

refers to time, strain, and behaviours in one role (e.g., work) that may affect individuals' performance in another role (e.g., family). With reference to previous literature (e.g., Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Greenhaus & Beutell, 1985), the present study proposed six types of work-family conflict: a) work-to-family conflict (WFC) time, (b) WFC strain, (c) WFC behaviour, (d) family-to-work conflict (FWC) time, (e) FWC strain, and (f) FWC behaviour.

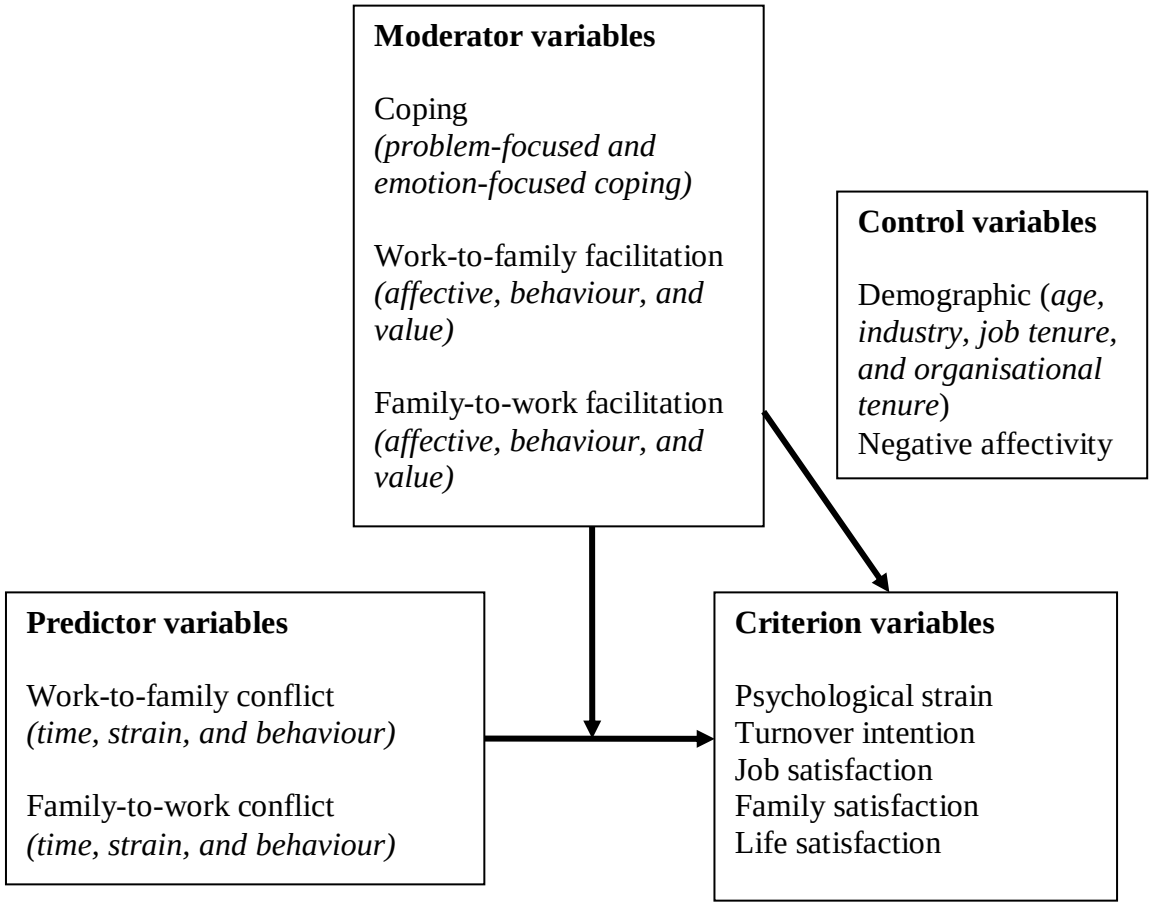

Figure 3.1: Theoretical Model A

WFC time occurs when the time spent at work makes it difficult for individuals to fulfil the requirements at home, whereas FWC time refers to individuals' difficulties in fulfilling the requirements at work due to the time spent

on family activities. WFC strain occurs when strain at work makes it difficult for individuals to fulfil the requirements at home, while FWC strain refers to individuals' difficulties in fulfilling the requirements at work due to strain experienced at home. WFC behaviour occurs when behaviours expected at home are incompatible with the behaviours required at work, whereas FWC behaviour occurs when behaviours expected at work are incompatible with the behaviours required at home. Previous research indicated that the changes in the nature of work and family have increased the likelihood of employed women to experience work-family conflict, which consequently affects their well-being (Hammer et al., 2005). It is assumed that work-family conflict will be associated with adverse effects on well-being.

The second part of Model A (Figure 3.1) includes coping and work-family facilitation as moderators of the relationship between different types of work-family conflict and the criterion variables. The model posits that the positive relationships between work-family conflict and psychological strain and intentions to leave, and the negative relationships between work-family conflict and intentions to stay, job satisfaction, family satisfaction, and life satisfaction will be moderated by coping and work-family facilitation. That is, well-being results not only from the effects of work-family conflict, but also from the interaction effects of coping and work-family facilitation with work-family conflict. In other words, well-being is hypothesised to increase when individuals engage in problem-focused and emotion-focused coping strategies and experience work-family facilitation while facing work-family conflict.

Coping refers to the cognitive and behavioural efforts that individuals engage in to avoid being harmed by strain. Due to the dearth of studies on coping

cited in several reviews on work and family issues (Eby et al., 2005; Frone, 2003), the literature has suggested that future research on work-family studies should consider the impact of individual differences, including coping strategies, when modelling the work-family interface (Ford, Heinen, & Langkamer, 2007). Literature has also suggested that coping is best researched longitudinally, so as to determine causation and direction of influence (Pearlin & Schooler, 1978). In the present study, coping is categorised into two types: (a) problem-focused coping and (b) emotion-focused coping. These coping strategies are discussed later in the next section (Section 3.2.3).

Another moderator variable that is included in this model is work-family facilitation. Work-family facilitation refers to the extent to which participation in one domain (e.g. work) is made easier by the experiences, opportunities, and skills gained in another domain (e.g. home) (Aryee, Srinivas, & Tan, 2005). In this study, both directions of work-family facilitation, which include work-to-family and family-to-work facilitation, were examined. Work-to-family facilitation (WFF) occurs when employees' participation at work enhances their performance at home, whereas family-to-work facilitation (FWF) happens when employees' involvement in the family domain enhances their performance in the work domain. The present study proposed six types of work-family facilitation: a) work-to-family facilitation (WFF) affective, (b) WFF behaviour, (c) WFF value, (d) family-to-work facilitation (FWF) affective, (e) FWF behaviour, and (f) FWF value.

WFF affective occurs when employees' positive mood and emotion at work enhance their performance at home, whereas FWF affective occurs when employees' positive mood and emotion at home enhance their performance at

work. WFF behaviour occurs when behaviours at work enhance employees' performance at home, while FWF behaviour refers to employees' behaviours at home that enhance their performance at work. WFF value occurs when employees' values at work enhance their performance at home, whereas FWF value refers to employees' values at home that enhance their work performance.

To date, only two studies conducted in the US (i.e., Gareis, Barnett, Ertel, & Berkman, 2009) that the researcher knows of, investigating work-family facilitation as a moderator in the relationship between work-family conflict and well-being. Existing literature indicates that work-family facilitation is positively related to increased work-related and non work-related satisfaction as well as health outcomes (Aryee et al., 2005). Hence it is important to examine the moderation effect of work-family facilitation in the work-family interface. Additionally, previous studies have examined the outcomes of work-family conflict and facilitation separately (Rantanen, Kinnunen, Mauno, & Tement, 2013).

In the present study, negative affectivity (NA) and demographic variables including age, industry type, job tenure, and organisational tenure were controlled to avoid spurious relations among variables (Spector, Zapf, Chen, & Frese, 2000; Zapf, Dormann, & Frese, 1996). Previously, NA has been found to affect the relationships between stressors and strain (Holtom, Burton, & Crossley, 2012; Oliver, Mansell, & Jose, 2010). High NA individuals, with negative views of themselves, were found to suffer from poor self-esteem, reported stress and physical symptoms, and experienced strain and dissatisfaction across time and situations, even in the absence of objective stressors (Watson & Pennebaker, 1989).

The final part of Model A comprises criterion variables, including psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction. It is expected that work-family conflict will increase psychological strain and turnover intention, but reduce job satisfaction, family satisfaction, and life satisfaction. In contrast, coping and work-family facilitation are predicted to reduce psychological strain and turnover intention, but increase job satisfaction, family satisfaction, and life satisfaction. This theoretical model (Model A) is tested both cross-sectionally and longitudinally in the present study.

Whereas Model A (Figure 3.1) focuses on the moderation effects, Model B (Figure 3.2) is a mediation model. Figure 3.2 (Model B) comprises of three parts: predictor, mediator, and criterion variables.

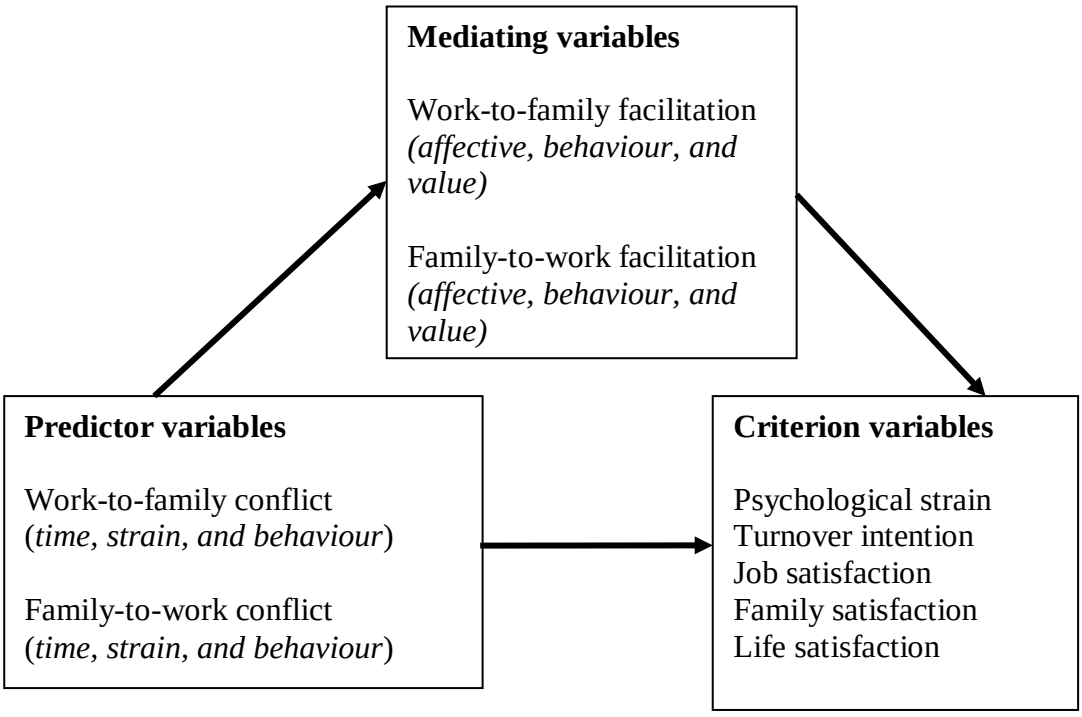

Figure 3.2: Theoretical Model B

The first part of Model B consists of six types work-family conflict (WFC time, strain, behaviour and FWC time, strain, behaviour) as the predictor

variables. The second part consists of six types of work-family facilitation (WFF affective, behaviour, and value and FWF affective, behaviour, and value) as the mediators. The final part comprises psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction as the criterion variables.

According to Nicklin and McNall (2013), little is known about the mediating role of work-family facilitation in organisational settings, although the construct was found to be directly related to better physical health, lower absenteeism, and increased job performance (van Steenbergen & Ellemers, 2009). Therefore, the present study investigates the mediating role of WFF and FWF in the relationship between work-family conflict and well-being, both cross-sectionally and longitudinally. It is predicted that work-family conflict and work-family facilitation will have direct effects on the criterion variables. It is also assumed that work-family facilitation will mediate the relationships between work-family conflict and the criterion variables.

In summary, the present study examines the direct effects of work-family conflict, coping, and work-family facilitation in relation to well-being (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction). The moderating effects of coping and work-family facilitation and the mediating effect of work-family facilitation on the relationships between work-family conflict and well-being are also investigated. The hypotheses for this study are discussed in the next sections.

3.2 Hypotheses of the study

This section presents the direct effect, moderating effect, and mediating effect hypotheses of this study, which were tested both cross-sectionally and longitudinally.

3.2.1 Direct effects of work-family conflict

The work-family conflict construct was introduced by Kahn and colleagues (1964) through their idea of interrole conflict, which refers to the mutual incompatibility of the work and home roles. That is, work demands make it difficult for individuals to participate at home (work-to-family conflict), whereas family demands make it difficult for individuals to perform at work (family-to-work conflict). Empirical research has found that job demands were positively related to work-to-family conflict (WFC), while home demands were positively related to family-to-work conflict (FWC) (Shimazu, Bakker, Demerouti, & Peeters, 2010). In addition, Greenhaus and Beutell (1985) suggested three categories of work-family conflict, which are WFC and FWC time, strain, and behaviour.

Work-family researchers have long assumed that the time spent at work makes it difficult for employees to spend time on family activities (WFC time), while the time spent at home makes it difficult for them to perform their work roles (FWC time) (Duxbury, Higgins, & Lee, 1994; Greenhaus & Beutell, 1985). This is exemplified in studies which found that long working hours were significantly positively related to psychological distress (Marchand & Blanc, 2010; Vecchio, Scuffham, & Hilton, 2009) and decreased satisfaction with work-family balance (Valcour, 2007), while flexible working hours were positively

related to increased organisational commitment and job satisfaction among employees (Lambert, Hogan, Camp, & Ventura, 2006; Scandura & Lankau, 1997). Shiftwork and working overtime were also positively related to work-family conflict (Byron, 2005).

WFC strain occurs when strain in work roles affects individuals' performance at home, whereas FWC strain occurs when strain in family roles affects individuals' work performance. Previous research found that work and home demands were positively related to work-family conflict (Lu, Kao, Chang, Wu, & Cooper, 2008; Steiber, 2009). That is, a variety of strain-based work demands such as work overload (Yildirim & Aycan, 2008), unsupportive work-family culture (Voydanoff, 2004), and job insecurity (Batt & Valcour, 2003) were positively related to work-family conflict. In addition, strain-based family demands, such as having dependent children at home which requires individuals' energy as parents to attend to them, high levels of family role conflict, and more role ambiguity were associated with increased work-family conflict (Lu et al., 2008). Strain-based demands might influence WFC through spillover, in which the effects of work demands are transferred to the family through energy depletion, negative emotions, or stress (Rothbard, 2001; Voydanoff, 2005).

WFC behaviour refers to the behaviours associated with work roles that are not compatible with the expectation of behaviours linked with family roles, whereas FWC behaviour refers to specific patterns of behaviour related to family roles that are not compatible with the expectation of behaviours at work. For example, the work role of being objective, firm, aggressive, detached, and dominant at work, is not compatible at home, where warmth, love, and support are expected (Brough & O'Driscoll, 2005; Greenhaus & Beutell, 1985; Hammer &

Thompson, 2003). The different types of work–family conflict often overlap and are difficult to differentiate empirically (Begall & Mills, 2011). Consequently, most have researched this construct in a general sense without considering all six types of work-family conflict (Karimi, Karimi, & Nouri, 2011). Hence, to fill in the gap, the present study examined the relationship of all types of WFC and FWC (time, strain, and behaviour) with all the criterion variables.

Work-family conflict and psychological strain

Previous work-family literature found that work-family conflict was positively associated with an increased level of psychological strain. That is, employees who experienced a high level of interference between work and family experienced more distress. A study on Japanese women with dependent children found that only FWC, but not WFC, was related to elevated distress (Shimazu et al., 2010). This finding supported the results of a longitudinal study conducted by Frone and colleagues (1997), in which only FWC was found to be positively related to depression, but not WFC.

Shimazu and colleagues (2010) argued that employees viewed FWC as more threatening than WFC because family roles became obstacles for them to meet the expectations in work roles. However, a study among Canadian respondents did find a significant positive relationship between WFC and psychological distress (Haines, Marchand, Rousseau, & Demers, 2008). Given the above findings, the present study examines the direct effects of all types of work-family conflict on psychological strain and the following cross-sectional hypotheses are tested:

Cross-sectional direct effect hypotheses:

Hypothesis 1: Work-family conflict will be positively related to psychological strain at Times 1 and 2.

H1a: Work-to-family conflict (WFC) (i) time, (ii) strain, and (iii) behaviour will be positively related to psychological strain at Times 1 and 2.

H1b: Family-to-work conflict (FWC) (i) time, (ii) strain, and (iii) behaviour will be positively related to psychological strain at Times 1 and 2.

Most research supporting the above predictions is based on cross-sectional studies. The issue of confounded antecedents and consequences in cross-sectional studies makes them open to criticism because the predictors might be affected by strain (Frone, 2003). For example, Zapf and colleagues (1996) depressed individuals with a negative mind-set might interact negatively with their environment and thus contributed to a more negative group climate. Therefore, in the current research, the direct effects of work-family conflict and psychological strain were examined longitudinally. The following longitudinal hypotheses are tested in the present study:

Longitudinal direct effect hypotheses

Hypothesis 2: Work-family conflict at Time 1 will be positively related to psychological strain at Time 2.

H2a: WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be positively related to psychological strain at Time 2.

H2b: FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be positively related to psychological strain at Time 2.

Work-family conflict and work-related outcomes

The conflicting demands between work and family such as long working hours were found to have adverse effects on work outcomes such as reduced job satisfaction (Kaur, Sharma, Talwar, Verma, & Singh, 2009) and high level of turnover intention (Sang, Dainty, & Ison, 2007; Wickramasinghe, 2010), whereas irregular work schedules predicted WFC (Yildirim & Aycan, 2008) among employees. Research found that women who perceived less flexible work hours reported lower levels of organisational commitment and job satisfaction than women who did not (Scandura & Lankau, 1997).

Strain-based conflict such as job demands were also found to tax individuals' energy and contributed to emotional exhaustion (Bakker, Demerouti, & Dollard, 2008). Consequently, these demands strongly influenced the experience of work-family conflict among employees (Steiber, 2009). Work-family conflict was found to be a significant predictor for job satisfaction and turnover intentions (Lu et al., 2008). Specifically, employees who experienced high level of interference between work and family reported reduced job satisfaction and increased turnover intentions. For example, WFC time and strain, but not WFC behaviour predicted job satisfaction (Farquharson et al., 2012). In addition, only WFC strain predicted intentions to leave (Farquharson et al., 2012). Lambert and colleagues (2006) found that WFC strain was positively associated with job stress, while WFC strain and behaviour were negatively related to job satisfaction. Furthermore, FWC time and behaviour were significantly negatively

related to organisational commitment (Lambert et al., 2006). WFC strain was also found to have a significant effect on job-related well-being, in which WFC strain was negatively related to job well-being (Karimi et al., 2011).

The above findings clearly outline the influence of work-family conflict on various work outcomes. Since most studies were conducted cross-sectionally in a Western society, the present study investigates the direct effects of work-family conflict on work outcomes in Malaysia, a Southeast Asia country. The following cross-sectional and longitudinal hypotheses are tested:

Cross-sectional direct effect hypotheses:

Hypothesis 3: Work-family conflict will be positively related to turnover intention and negatively related to job satisfaction at Times 1 and 2.

H3a: WFC (i) time, (ii) strain, and (iii) behaviour will be positively related to turnover intention at Times 1 and 2.

H3b: FWC (i) time, (ii) strain, and (iii) behaviour will be positively related to turnover intention at Times 1 and 2.

H3c: WFC (i) time, (ii) strain, and (iii) behaviour will be negatively related to job satisfaction at Times 1 and 2.

H3d: FWC (i) time, (ii) strain, and (iii) behaviour will be negatively related to job satisfaction at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 4: Work-family conflict at Time 1 will be positively related to turnover intention and negatively related to job satisfaction at Time 2.

H4a: WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be positively related to turnover intention at Time 2.

H4b: FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be positively related to turnover intention at Time 2.

H4c: WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to job satisfaction at Time 2.

H4d: FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to job satisfaction at Time 2.

Work-family conflict and nonwork-related satisfaction

Apart from the adverse effects on mental health and work-related outcomes, WFC time such as long working hours were also negatively related to family satisfaction (Fursman, 2009) and marital satisfaction (Hostetler, Desrochers, Kopko, & Moen, 2012). Long working hours were also reported to reduce the time spent with children, abstained individuals from having family holidays together, disabled family members to spend special occasions together, and created a faster pace of life (Fursman, 2009). Working during weekends also contributed to detrimental effects on the experience of work-life balance because the schedules prevented individuals from being at home and engaged in family activities (Steiber, 2009). Previous research has found that perceived work demands influenced employees' experience of WFC, while perceived family demands were associated with the increase in FWC (Boyar, Maertz, Mosley, & Carr, 2008). Hence, the present study tests the direct effects of all types of work-family conflict on non-work outcomes, both cross-sectionally and longitudinally by using the following hypotheses:

Cross-sectional direct effect hypotheses

Hypothesis 5: Work-family conflict will be negatively related to family satisfaction and life satisfaction at Times 1 and 2.

H5a: WFC (i) time, (ii) strain, and (iii) behaviour will be negatively related to family satisfaction at Times 1 and 2.

H5b: FWC (i) time, (ii) strain, and (iii) behaviour will be negatively related to family satisfaction at Times 1 and 2.

H5c: WFC (i) time, (ii) strain, and (iii) behaviour will be negatively related to life satisfaction at Times 1 and 2.

H5d: FWC (i) time, (ii) strain, and (iii) behaviour will be negatively related to life satisfaction at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 6: Work-family conflict at Time 1 will be negatively related to family satisfaction and life satisfaction at Time 2.

H6a: WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to family satisfaction at Time 2.

H6b: FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to family satisfaction at Time 2.

H6c: WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to life satisfaction at Time 2.

H6d: FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 will be negatively related to life satisfaction at Time 2.

Ford and colleagues (2007) argued that family satisfaction was explained by work domain-specific variables, whereas job satisfaction was explained by family domain-specific variables. That is, job and family stress showed the strongest effects on cross-domain satisfaction. This cross-domain effect was supported by a research (Hostetler et al., 2012) which found that WFC was negatively related to family satisfaction and life satisfaction (Yildirim & Aycan, 2008), while FWC was negatively associated with job satisfaction (Kwan, Lau, & Au, 2012) and workplace cognitive failure (Lapierre, Hammer, Truxillo, & Murphy, 2012). However, a study among Swedish employees found both cross-domain and within-domain effects of FWC. Specifically, when work centrality was high, FWC was significantly associated with job and family satisfaction, regardless of the level of family centrality (Bagger & Li, 2012). Hence, the present study investigates all types of WFC and FWC with psychological strain and both work- and nonwork-related outcomes.

3.2.2 Direct effects of coping

Previously, coping was always referred to as individuals' reactions to forces which are perceived as harmful (Pearlin & Schooler, 1978). According to Pearlin and Schooler (1978), coping is a process through which individuals eliminate or modify the situations, control the meaning of the situation, and manage the emotional consequences resulting from the stressful situation. Later, Lazarus and Folkman (1984) noted that cognitive appraisals involving behavioural and cognitive efforts to manage the internal and external demands which are viewed as harmful to individuals, is a part of coping. Coping is

categorised into two types: problem-focused and emotion-focused coping (Lazarus & Folkman, 1984).

Problem-focused coping

When individuals perceived that something can be done to alter a stressful situation, problem-focused coping will be used (Folkman & Lazarus, 1980). Problem-focused coping involves seeking information on things that need to be done, changing one's own behaviour (e.g., exhibiting greater effort at work to keep up with high workload), or taking action on the environment (e.g., hiring house helper to help with housework) (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Previous studies found that problem-focused coping has been associated with increased well-being (Brown, Mulhern, & Joseph, 2002), reduced psychological distress (González-Morales, Peiró, Rodríguez, & Greenglass, 2006), decreased FWC (Lapierre & Allen, 2006), and reduced WFC (Baltes & Heydens-Gahir, 2003). In addition, a study found that problem-focused coping was positively related to job and family satisfaction among Hong Kong Chinese employed parents in dual earner families (Aryee, Luk, Leong, & Lo, 1999).

However, problem-focused coping was also found to have an adverse effect on work-family interaction. Specifically, problem-focused coping was related to increased WFC strain (Andreassi, 2011). Researchers (Cunningham & De La Rosa, 2008) suggested that problem-focused coping was effective only when individuals have control over the stressors. Perhaps, individuals have less control over their work roles (e.g., assignment of new tasks) than their family

roles (e.g., childcare). Thus, problem-focused coping utilised in the work domain might be counterproductive and resulted in strain.

Emotion-focused coping

When individuals perceived that they have no control over a situation or that they have insufficient resources such lack of ability and equipment needed, they would engage in emotion-focused coping (Folkman & Lazarus, 1980). Emotion-focused coping includes distancing, escaping, or avoiding stressors and cognitively restructuring stressful situations into something positive (Folkman, Lazarus, Dunkel-Schetter, et al., 1986). These efforts allow individuals to alter the way they interpret stressful situation and allow them not to focus on such situation (Folkman, Lazarus, Dunkel-Schetter, et al., 1986).

Although some studies reported adverse effects of emotion-focused coping on well-being such as higher work-family conflict (Rotondo, Carlson, & Kincaid, 2003), increased psychological distress (Peng, Riolli, Schaubroeck, & Spain, 2012), and higher emotional exhaustion (Jenaro, Flores, & Arias, 2007), a study by Rantanen and colleagues (2011) however, has found that avoidance coping (a type of emotion-focused coping) was beneficial in a high FWC situation, such that those who used more avoidance coping were more satisfied with their family life situation. Avoiding some home tasks or delegating them to others (e. g., spouse or children) might be more efficacious to minimise stress at home. In this condition, trying to be a perfect parent by performing all household chores might not be the most beneficial strategy in dealing with home demands. As noted by Folkman and Moskowitz (2004), there is no one best coping strategy and the effectiveness of any coping strategy depends on its appropriateness in certain situations.

Coping and psychological strain

Chun, Moos, and Cronkite (2006) argued that coping strategies that work within an individualistic society might not be effective within a collectivistic society due to different coping goals. Individualistic coping goals place an importance on autonomy and independence of the self, whereas collectivistic coping goals assert interdependence and relatedness between self and others. Previous literature found that individuals in collectivistic cultures, such as Korean Americans and Malays were more likely to use emotion-focused coping (Essau & Trommsdorff, 1996), whereas individuals in individualistic cultures, such as Euro-Americans and Germans, were more likely to use problem-focused coping (Essau & Trommsdorff, 1996; Radford, Mann, Ohta, & Nakane, 1993). As individuals in collectivist culture collective goal an interpersonal harmony, they might suppress their feelings and needs in order to achieve their goal and group harmony (Leung, 2008). As such, collectivists prefer to use emotion-focused coping such as escape-avoidance, accepting responsibility, and positive reappraisal (Folkman, Lazarus, Gruen, & DeLongis, 1986) than problem-focused coping such as aggressive interpersonal efforts to change stressful situation (Folkman, Lazarus, Gruen, et al., 1986), open communication, and clarification (Leung, 2008).

Past research has shown that both problem-focused and emotion-focused coping interventions improved mental health among employees (Bond & Bunce, 2000). Problem-focused coping (Lapierre & Allen, 2006) and emotion-focused coping (e.g., acceptance) (Qiao, Li, & Hu, 2011) were also positively related to greater well-being. According to Leana, Feldman, and Tan (1998), problem-focused and emotion focused coping may occur together because individuals may experience various emotions during different stages of stressful situations

(Folkman & Lazarus, 1985). Hence, they might utilise more than one coping strategy for the same stressors over time (Folkman & Lazarus, 1985). Based on the findings on the utilisation and influence of the different types of coping on well-being, the direct effects of four types of coping strategies on psychological strain are examined cross-sectionally and longitudinally in this study to test the following hypotheses:

Cross-sectional direct effect hypotheses

Hypothesis 7: Coping will be negatively related to psychological strain at Times 1 and 2.

H7a: Problem-focused coping will be negatively related to psychological strain at Times 1 and 2.

H7b: Emotion-focused coping will be negatively related to psychological strain at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 8: Coping at Time 1 will be negatively related to psychological strain at Time 2.

H8a: Problem-focused coping at Time 1 will be negatively related to psychological strain at Time 2.

H8b: Emotion-focused coping at Time 1 will be negatively related to psychological strain at Time 2.

Coping and work-related outcomes

According to Nonis and Sager (2003), both problem-focused and emotion-focused coping have positive effects on employees' ability to cope with stress. Previous research has found that problem-focused coping was associated with higher job satisfaction (Aryee, Luk, et al., 1999; Mark & Smith, 2012; Rantanen et al., 2011), better reemployment (Feldman, 1992), greater organisational commitment, higher job performance, and less intention to leave the organisation (Armstrong-Stassen, 1994). Additionally, emotion-focused coping strategies such as problem reappraisal and self-acceptance were positively associated with job satisfaction (Aryee, Luk, et al., 1999; Gellis, 2002; McCarthy, Lambert, Crowe, & McCarthy, 2010) and reduced job stress (Gellis, 2002). Based on the findings, the direct effects of coping on work outcomes are investigated and the following cross-sectional and longitudinal hypotheses are tested:

Cross-sectional direct effect hypotheses

Hypothesis 9: Coping will be negatively related to turnover intention and positively related to job satisfaction at Times 1 and 2.

H9a: Problem-focused coping will be negatively related to turnover intention Times 1 and 2.

H9b: Emotion-focused coping will be negatively related to turnover intention Times 1 and 2.

H9c: Problem-focused coping will be positively related to job satisfaction at Times 1 and 2.

H9d: Emotion-focused coping will be positively related to job satisfaction at Times 1 and 2

Longitudinal direct effect hypotheses

Hypothesis 10: Coping at Time 1 will be negatively related to turnover intention and positively related to job satisfaction at Time 2.

H10a: Problem-focused coping at Time 1 will be negatively related to turnover intention at Time 2.

H10b: Emotion-focused coping at Time 1 will be negatively related to turnover intention at Time 2.

H10c: Problem-focused coping at Time 1 will be positively related to job satisfaction at Time 2.

H10d: Emotion-focused coping at Time 1 will be positively related to job satisfaction at Time 2.

Coping and nonwork-related satisfaction

Previous studies have found that problem-focused coping was positively associated with family satisfaction (Aryee, Luk, et al., 1999) and life satisfaction (Perrone, Ægisdóttir, Webb, & Blalock, 2006) among employees. Similarly, emotion-focused coping was found to be positively related to family satisfaction (Rantanen et al., 2011) and life satisfaction (Aryee, Luk, et al., 1999). However, a study of coping among nurses (Chang, 2011) found that problem-focused coping was positively related to life satisfaction, while emotion-focused coping was negatively related to life satisfaction. As noted by Folkman and Moskowitz (2004), perhaps nurses who overly relied on emotion as a coping strategy have focused most of their energy on avoiding negative feelings, rather than finding solutions to face such stressful situation. The energy used might deteriorate over time (Hobfoll, 2002) and lead to lower life satisfaction. Given the mixed findings

of the above studies on the influence of coping on nonwork satisfaction, the present study investigates the direct effects of coping on family and life satisfaction among Malaysian employed women. Hence, the following cross-sectional and longitudinal hypotheses are tested:

Cross-sectional direct effect hypotheses

Hypothesis 11: Coping will be positively related to family satisfaction and life satisfaction at Times 1 and 2.

H11a: Problem-focused coping will be positively related to family satisfaction at Times 1 and 2.

H11b: Emotion-focused coping will be positively related to family satisfaction at Times 1 and 2.

H11c: Problem-focused coping will be positively related to life satisfaction at Times 1 and 2.

H11d: Emotion-focused coping will be positively related to life satisfaction at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 12: Coping at Time 1 will be positively related to family satisfaction and life satisfaction at Time 2.

H12a: Problem-focused coping at Time 1 will be positively related to family satisfaction at Time 2.

H12b: Emotion-focused coping at Time 1 will be positively related to family satisfaction at Time 2.

H12c: Problem-focused coping at Time 1 will be positively related to life satisfaction at Time 2.

H12d: Emotion-focused coping at Time 1 will be positively related to family satisfaction at Time 2.

3.2.3 Moderating effects of coping

While the earlier hypotheses (H7 to H12) predicted the direct relationships between coping and well-being (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction), Model A in Figure 3.1 proposes that problem-focused and emotion-focused coping will interact with work-family conflict to influence well-being. Overall, it is predicted that coping is likely to moderate the relationship between work-family conflict and well-being. A moderator is a variable that affects the strength and direction of the relationship between a predictor and criterion variables (Baron & Kenny, 1986). The moderating effects of coping are assumed to vary by the types of coping strategies utilised and the directions of work-family conflict (WFC and FWC) faced by individuals.

Problem-focused coping as a moderator

Bhagat and colleagues (Bhagat et al., 2010) have found an evidence of a significant moderating effect of problem-focused coping on the relationship between role ambiguity and psychological strain among Japanese employees. Perhaps, problem-focused coping such as seeking advice from supervisors and discussion with colleagues to clarify work roles buffered the negative impacts of employees' role ambiguity on psychological strain (Beehr, King, & King, 1990).

Another study by Armstrong-Stassen (1994) has found a few significant moderating effects of problem-focused coping (referred to as control coping in her study and the items included in the instrument measured mental and behavioural planning and goal setting) on the relationship between stress appraisals and work outcomes. That is, problem-focused coping was found to moderate the relationship between threat of job loss and turnover intention and between threat of job loss and job performance. Specifically, when using high problem-focused coping, employees reported low turnover intentions and high job performance even in the presence of high threat of job loss. Perhaps, by actively planning and setting goals, employees might be more optimistic and might perceive that they are in control of the stressful situation. Research has found that optimistic individuals and those with internal locus of control were more likely to engage in problem-focused coping (Anderson, 1977; Strutton & Lumpkin, 1993).

Problem-focused coping was also found to moderate the relationship between work resources and burnout (i.e., emotional exhaustion, depersonalisation, and personal accomplishment), such that those with high problem-focused coping reported lower emotional exhaustion, lower depersonalisation, and higher personal accomplishment even when work resources conditions were low (Riolli & Savicki, 2003). The findings are consistent with the assumption of COR theory (Hobfoll, 2002) which predicts that employees will be more sensitive to low resources conditions (e.g., low work resources) and thus, they will be more mobilised to respond (e.g., by using problem-focused coping) to such conditions to achieve greater well-being (e.g., reduced burnout).

Bhagat and colleagues (1991) has found the moderating effects of problem-focused coping on the relationship between organisational stress and strain and between personal life stress and strain. Specifically, individuals who used problem-focused coping when experiencing organisational and personal life stress exhibited less strain than those who did not use problem-focused coping. Perhaps, when individuals set their goals and plan to execute tasks based on those goals, they might be able to manage the stressful situation more effectively (Ivancevich, Matteson, Freedman, & Phillips, 1990).

Previous literature also suggests that actively restructuring and redefining family roles, which are parts of problem-focused coping (Drnovšek, Örtqvist, & Wincent, 2010), would buffer the negative effects of FWC on life strain (Matsui, Ohsawa, & Onglatco, 1995). Perhaps, Japanese female employees in this study perceived that they were in control of their family roles and they were able to redefine and restructure them than their work roles. Researchers (Folkman, 1984) suggest that individuals who believe that they are in control of a situation are more likely to engage in problem-focused coping.

Emotion-focused coping as a moderator

A study by Bhagat and colleagues (2010) found that emotion-focused coping is a better moderator in a collectivistic society and problem-focused coping is a better moderator in an individualistic society on the relationships between organisational stress and psychological strain. A plausible explanation is that people in a collectivistic society value collective goal and group harmony, and therefore they prefer to suppress their feelings and avoid confrontation with others. Besides the significant moderating effect of problem-focused coping

discussed in the previous section, Bhagat and colleagues (2010) also found that emotion-focused coping moderated the effects of role ambiguity and role conflict on psychological strain among Japanese employees. Perhaps, emotion-focused coping (e.g., cognitive reappraisal) could generate positive emotions such as pride and satisfaction with work and might reduce negative emotion such as anger and sadness (Folkman & Lazarus, 1988) that resulted from role ambiguity and role conflict, and hence reduced psychological strain.

In addition, Aryee and colleagues (1999) have found significant moderating effects of emotion-focused coping on the relationship between FWC and job satisfaction among Hong Kong Chinese employees. Perhaps, when individuals are experiencing FWC such as being late to a meeting at work because of a sick child at home whom need to be arranged care for, the use of emotion-focused coping (e.g., engaging in positive reappraisal such as thinking that things will get better soon) may help to increase their job satisfaction. Mattlin and colleagues (1990) suggests that when individuals perceived that they have less control over a stressful situation, they tend to engage in emotion-focused coping to reframe the problem in a more positive way so that it will no longer evoke a negative emotional response.

The findings on the moderating effects of problem-focused and emotion-focused coping (Aryee, Fields, & Luk, 1999; Bhagat et al., 2010) are consistent with Leana and collagues' (1998) argument on the utilisation of both coping strategies in stressful situation. According to the researchers (Leana et al., 1998), both coping strategies (problem-focused and emotion focused coping) may be utilised in stressful situations because individuals undergo various emotions during different stages of such situations (Folkman & Lazarus, 1985). Based on

this reasoning, it is likely that problem-focused and emotion-focused coping buffer the negative effects of work-family conflict on well-being by weakening the adverse effects of work-family conflict. In the present study, problem-focused and emotion-focused coping are predicted to moderate the adverse effect of work-family conflict on well-being. The following cross-sectional and longitudinal moderating effect hypotheses are tested:

Cross-sectional moderating effect hypotheses

Hypothesis 13: Coping will moderate the relationship between work-family conflict and psychological strain at Times 1 and 2, such that the relationship will be stronger when coping is low than when coping is high.

H13a: Problem-focused coping will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H13b: Problem-focused coping will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H13c: Emotion-focused coping will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H13d: Emotion-focused coping will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

Hypothesis 14: Coping will moderate the relationships between work-family conflict and turnover intention at Times 1 and 2, such that the relationships will be stronger when coping is low than when coping is high.

H14a: Problem-focused coping will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H14b: Problem-focused coping will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H14c: Emotion-focused coping will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H14d: Emotion-focused coping will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover at Times 1 and 2.

Hypothesis 15: Coping will moderate the relationships between work-family conflict and job satisfaction at Times 1 and 2, such that the relationships will be stronger when coping is low than when coping is high.

H15a: Problem-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H15b: Problem-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H15c: Emotion-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H15d: Emotion-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

Hypothesis 16: Coping will moderate the relationships between work-family conflict and family satisfaction at Times 1 and 2, such that the relationships will be stronger when coping is low than when coping is high.

H16a: Problem-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H16b: Problem-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H16c: Emotion-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H16d: Emotion-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

Hypothesis 17: Coping will moderate the relationships between work-family conflict and life satisfaction at Times 1 and 2, such that the relationships will be stronger when coping is low than when coping is high.

H17a: Problem-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H17b: Problem-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H17c: Emotion-focused coping will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H17d: Emotion-focused coping will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

Longitudinal moderating effect hypotheses

Hypothesis 18: Coping at Time 1 will moderate the relationship between Time 1 work-family conflict and Time 2 psychological strain, such that the relationship will be stronger when coping is low than when coping is high.

H18a: Problem-focused coping at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H18b: Problem-focused coping at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H18c: Emotion-focused coping at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H18d: Emotion-focused coping at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

Hypothesis 19: Coping at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 turnover intention, such that the relationships will be stronger when coping is low than when coping is high.

H19a: Problem-focused coping at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H19b: Problem-focused coping at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H19c: Emotion-focused coping at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H19d: Emotion-focused coping at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

Hypothesis 20: Coping at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 job satisfaction, such that the relationships will be stronger when coping is low than when coping is high.

H20a: Problem-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H20b: Problem-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H20c: Emotion-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H20d: Emotion-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

Hypothesis 21: Coping at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 family satisfaction, such that the relationships will be stronger when coping is low than when coping is high.

H21a: Problem-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H21b: Problem-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H21c: Emotion-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H21d: Emotion-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

Hypothesis 22: Coping at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 life satisfaction, such that the relationships will be stronger when coping is low than when coping is high.

H22a: Problem-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H22b: Problem-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H22c: Emotion-focused coping at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H22d: Emotion-focused coping at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

3.2.4 Direct effects of work-family facilitation

Work-family facilitation refers to the extent to which experiences and resources in one role (e.g. work) improve individuals' experiences in another role (e.g. family) (Greenhaus & Powell, 2006). Similar to work-family conflict, work-family facilitation is also divided into two dimensions; work-to-family facilitation (WFF) and family-to-work facilitation (FWF). WFF occurs when the resources originated from work roles improve individuals' performance at home, whereas FWF occurs when the resources originated from family roles enhance individuals' performance at work.

Greenhaus and Powell (2006) categorised work-family facilitation into two types: instrumental and affective work-family facilitation. Instrumental work-family facilitation involves skills or behaviours from one role (e.g. work) that are applied to another role (e.g. family), and lead to a better experience in the receiving role. For instance, being a leader at work helps an individual to better coach children at home. The skills and behaviours which are obtained from work roles may help individuals to be more effective at home, which in turn enhance their family roles. Affective work-family facilitation involves positive psychological resources from one role (e.g. family) that facilitate the functioning of another role (e.g. work). For instance, love, concern, and advice from family members help to improve individuals' motivation, which in turn facilitate their work experience. Emotional support that is received at home helps individuals to handle job pressure and therefore, the negative experiences at work might not have significant effects on psychological strain (Grzywacz & Marks, 2000).

Hanson and colleagues (2006) have suggested six types of work-family facilitation: (a) WFF affective, (b) WFF behaviour, (c) WFF value, (d) FWF

affective, (e) FWF behaviour, and (f) FWF value. Affective work-family facilitation (WFF and FWF affect) refers to positive affect such as love and respect in one role (e.g. family) which facilitate the functioning of another role (e.g., work). Behavioural work-family facilitation (WFF and FWF behaviour) refers to positive behaviours such as good time management in one role (e.g., work) that enhance the functioning of another role (e.g., family). Value work-family facilitation (WFF and FWF value) refers to positive values such as autonomy in one role (e.g., family) that facilitate the functioning of another role (e.g., work).

Work-family facilitation and psychological strain

Witt & Carlson (2006) noted that the concept of work-family facilitation was underdeveloped and received less attention than work-family conflict, although several researchers have started to address this gap (Hunter, Perry, Carlson, & Smith, 2010; Michel, Clark, & Jaramillo, 2011). Most work-family research predicts that resources from family roles might improve the work roles by extenuating the adverse effects of stress on health, work, and non-work outcomes. This is exemplified in a meta-analysis review on work-family facilitation which found that both WFF and FWF were associated with better mental health (McNall, Nicklin, & Masuda, 2009), whereas only WFF was found to reduce distress (Shimada, Shimazu, Bakker, Demerouti, & Kawakami, 2010). Since work-family facilitation has just recently researched by work-family researchers, this construct still remains conceptually and empirically underdeveloped (Grzywacz & Butler, 2005), especially in a collectivistic society such as Malaysia. Thus, the present study predicts that work-family facilitation

will be negatively associated with psychological strain, both cross-sectionally and longitudinally. In the present study, six types of work-family facilitation as suggested by Hanson and colleagues (2006) are used. For this reason, the following hypotheses are tested:

Cross-sectional direct effect hypotheses:

Hypothesis 23: Work-family facilitation will be negatively related to psychological strain at Times 1 and 2.

H23a: Work-to-family facilitation (WFF) (i) affect, (ii) behaviour, and (iii) value will be negatively related to psychological strain at Times 1 and 2.

H23b: Family-to-work facilitation (FWF) (i) affect, (ii) behaviour, and (iii) value will be negatively related to psychological strain at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 24: Work-family facilitation at Time 1 will be negatively related to psychological strain at Time 2.

H24a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be negatively related to psychological strain at Time 2.

H24b: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be negatively related to psychological strain at Time 2.

Work-family facilitation and work-related outcomes

Previous research has yielded mixed results regarding the relationship between work-family facilitation and work outcomes. Some authors found that work-family facilitation was positively related to job satisfaction (Michel &

Michel, 2012; Wiese, Seiger, Schmid, & Freund, 2010) and negatively related to turnover intention (Russo & Buonocore, 2012; Wayne, Randel, & Stevens, 2006), whereas McNall and colleagues (2009) did not find any significant relationships between work-family facilitation and turnover intentions. Another study among Taiwanese employees found that WFF and job satisfaction were positively related to one another (Lu, 2011). A study with Indian employees revealed that both WFF and FWF predicted work-related outcomes such as job satisfaction and organisational citizenship behaviours (Bhargava & Baral, 2009).

Given the mixed findings of the relationship between work-family facilitation and work outcomes, the present study investigates the direct effects of WFF and FWF with turnover intention and job satisfaction among employees in Malaysia. The following cross-sectional and longitudinal hypotheses are examined:

Cross-sectional direct effect hypotheses

Hypothesis 25: Work-family facilitation will be negatively related to turnover intention and positively related to job satisfaction at Times 1 and 2.

H25a: WFF (i) affect, (ii) behaviour, and (iii) value will be negatively related to turnover intention at Times 1 and 2.

H25b: FWF (i) affect, (ii) behaviour, and (iii) value will be negatively related to turnover intention at Times 1 and 2.

H25c: WFF (i) affect, (ii) behaviour, and (iii) value will be positively related to job satisfaction at Times 1 and 2.

H25d: FWF (i) affect, (ii) behaviour, and (iii) value will be positively related to job satisfaction at Times 1 and 2.

Longitudinal direct effect hypotheses

Hypothesis 26: Work-family facilitation at Time 1 will be negatively related to turnover intention and positively related to job satisfaction at Time 2.

H26a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be negatively related to turnover intention at Time 2.

H26b: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be negatively related to turnover intention at Time 2.

H26c: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to job satisfaction at Time 2.

H26d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to job satisfaction at Time 2.

Work-family facilitation and nonwork-related satisfaction

As mentioned earlier, the existing literature on the consequences of work-family facilitation was just newly researched and has not taken a strong domain-specific stance (Shockley & Singla, 2011). While Nicklin and McNall (2013) found that both WFF and FWF were positively related to family satisfaction, another studies with Asian employees, particularly the Indians and Taiwanese (Bhargava & Baral, 2009; Lu, 2011), found that only FWF was related to family satisfaction (Lu, 2011; Bhargava & Baral, 2009). WFF on the other hand, was only positively related to life satisfaction (McNall et al., 2009).

Based on the positive relationships between work-family facilitation and nonwork satisfaction, the present study examines the direct effects of work-family facilitation on family satisfaction and life satisfaction by using the following cross-sectional and longitudinal hypotheses:

Cross-sectional direct effect hypothesis

Hypothesis 27: Work-family facilitation will be positively related to nonwork satisfaction at Times 1 and 2.

H27a: WFF (i) affect, (ii) behaviour, and (iii) value will be positively related to family satisfaction at Times 1 and 2.

H27b: FWF (i) affect, (ii) behaviour, and (iii) value will be positively related to family satisfaction at Times 1 and 2.

H27c: WFF (i) affect, (ii) behaviour, and (iii) value will be positively related to life satisfaction at Times 1 and 2.

H27d: FWF (i) affect, (ii) behaviour, and (iii) value will be positively related to life satisfaction at Times 1 and 2.

Longitudinal direct effect hypotheses:

Hypothesis 28: Work-family facilitation at Time 1 will be positively related to family satisfaction and life satisfaction at Time 2.

H28a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to family satisfaction at Time 2.

H28b: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to family satisfaction at Time 2.

H28c: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to life satisfaction at Time 2.

H28d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will be positively related to life satisfaction at Time 2.

3.2.5 Moderating effects of work-family facilitation

Although studies on the moderating effects of work-family conflict on stressor-strain relationships were long established (e.g., Bedeian, Burke, & Moffet, 1988; Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011; Higgins & Duxbury, 1992; Qu & Zhao, 2012), the role of work-family facilitation as a moderator between stressors and well-being remains unclear. Most studies in the work-family area focus on the predictors, consequences, and moderators of work-family facilitation (Carlson, Hunter, Ferguson, & Whitten, 2011; Cowlishaw, Birch, McLennan, & Hayes, 2012; Lee, Zvonkovic, & Crawford, 2013; McNall et al., 2009), as well as the mediating role of work-family facilitation on the relationship between predictors and well-being (e.g., Baral & Bhargava, 2010; Nicklin & McNall, 2013; Tang, Siu, & Cheung, 2012; Taylor, DelCampo, & Blancero, 2009). However, little is known about the moderating effect of work-family facilitation on the relationship between stress and well-being. Only two studies (Gareis et al., 2009; Grzywacz & Bass, 2003) that the researcher knows of, which examined the moderating effects of work-family facilitation.

Greenhaus and Powell (2006) have suggested that work-family facilitation could buffer the negative effects of work-family conflict on well-being. In relation to this, Gareis and colleagues (2009) have found that FWF moderated the negative relationship between FWC and life satisfaction, mental health, affect balance, and partner relationship quality. Perhaps, specific family resources in this study such as love and respect help individuals to withstand FWC, without poor socio-emotional outcomes (Gareis et al., 2009).

Another study by Grzywacz and Bass (2003) has also found significant interactions between work-family facilitation and work-family conflict on anxiety

disorder. Specifically, when work-family facilitation was high, individuals reported lower level of anxiety disorder even when they experienced work-family conflict than those with low work-family facilitation. Perhaps, work and family resources such as job control and family supportive climate (work resources) and love and family status (family resources) assists individuals to face work-family conflict, and consequently lower their anxiety disorder. However, both (Gareis et al., 2009; Grzywacz & Bass, 2003) are cross-sectional studies and therefore, the generalisability of the results are limited. Hence, the present study examines the moderating effect of work-family facilitation on the relationship between work-family conflict and well-being (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction) both cross-sectionally and longitudinally. Specifically, the following hypotheses are tested:

Cross-sectional moderating effect hypotheses

Hypothesis 29: Work-family facilitation will moderate the relationship between work-family conflict and psychological strain at Times 1 and 2, such that the relationship will be stronger when work-family facilitation is low than when work-family facilitation is high.

H29a: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H29b: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H29c: FWF (i) affect, (ii) behaviour, and (iii) value coping will moderate the positive relationships between WFC and FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H29d: FWF (i) affect, (ii) behaviour, and (iii) value coping will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

Hypothesis 30: Work-family facilitation will moderate the relationships between work-family conflict and turnover intention at Times 1 and 2, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H30a: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H30b: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H30c: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between WFC and FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H30d: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

Hypothesis 31: Work-family facilitation will moderate the relationships between work-family conflict and job satisfaction at Times 1 and 2, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H31a: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H31b: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H31c: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H31d: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

Hypothesis 32: Work-family facilitation will moderate the relationships between work-family conflict and family satisfaction at Times 1 and 2, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H32a: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H32b: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H32c: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H32d: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

Hypothesis 33: Work-family facilitation will moderate the relationships between work-family conflict and life satisfaction at Times 1 and 2, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H33a: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H33b: WFF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H33c: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H33d: FWF (i) affect, (ii) behaviour, and (iii) value will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

Longitudinal moderating effect hypotheses

Hypothesis 34: Work-family facilitation at Time 1 will moderate the relationship between Time 1 work-family conflict and Time 2 psychological strain, such that the relationship will be stronger when work-family facilitation is low than when work-family facilitation is high.

H34a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H34b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H34c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H34d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

Hypothesis 35: Work-family facilitation at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 turnover intention, such that the

relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H35a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H35b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H35c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H35d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the positive relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

Hypothesis 36: Work-family facilitation at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 job satisfaction, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H36a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H36b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H36c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H36d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

Hypothesis 37: Work-family facilitation at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 family satisfaction, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H37a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H37b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H37c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H37d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

Hypothesis 38: Work-family facilitation at Time 1 will moderate the relationships between Time 1 work-family conflict and Time 2 life satisfaction, such that the relationships will be stronger when work-family facilitation is low than when work-family facilitation is high.

H38a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H38b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H38c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H38d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will moderate the negative relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

3.2.6 Mediating effects of work-family facilitation

It is generally accepted in the literature that work-family conflict leads to adverse effects of well-being (e.g., Kwan et al., 2012; Zhao & Matilla, 2013), while work-family facilitation is associated with increased well-being (e.g., Beutell & Wittig-Berman, 2008; Russo & Buonocore, 2012). As work-family conflict is appraised by individuals as taxing, work-family facilitation on the other hand, is considered as one of the valuable resources. According to Hobfoll (2002),

work-family facilitation occurs when resources in one role (e.g. family) enhance individuals' functioning in another role (e.g. work). In the present study, Model B (Figure 3.2) proposes that work-family facilitation (WFF and FWF affect, behaviour, and value) mediates the relationship between work-family conflict and well-being.

A recent study has found that work-family facilitation mediated the relationship between job characteristics and job satisfaction and between supervisor support and affective commitment (Baral & Bhargava, 2010). That is, when individuals perceived that they have higher job autonomy, they reported higher work-family facilitation, which in turn led to increased job satisfaction. Another study by Nicklin and McNall (2013) has found significant mediating effects of WFF (affective and capital) between supervisor support and job satisfaction. Perhaps, supervisor support was positively related to job satisfaction because employees perceived that their work provided them with a sense of esteem and security (WFF capital) and put them in good mood (WFF affective), which in turn increased their job satisfaction. The findings are consistent with the assumptions of social exchange theory which proposes that employees feel the obligations to reciprocate organisational rewards with discretionary role behaviours to contribute to the organisation (Podsakoff & MacKenzie, 1997). As such, when employees perceived high work-family facilitation because of organisational interventions such as high job autonomy and supervisor support, they were more likely to be satisfied with their job and to feel committed with their organisation.

In addition, FWF was also found to mediate the relationship between family support and family satisfaction (Nicklin & McNall, 2013). Perhaps, family

support was positively related to family satisfaction via enthusiasm and alertness generated at home that were transferred to work (Carlson, Kacmar, Wayne, & Grzywacz, 2006). Consistent with the assumption of social exchange theory, when employees experienced positive feelings from their family roles, they were more likely to reciprocate in the form of greater family satisfaction (Nicklin & McNall, 2013).

While previous studies explain the mediating effects of work-family facilitation by using social exchange theory, the present study however describes the mediating effects of work-family facilitation on the relationship between work-family conflict and well-being based on COR theory. On the basis of COR theory (Hobfoll, 1989), it is proposed that in the process of juggling work and family roles, individuals may experience resource loss (work-family conflict). Thus, there is an increased need for allocating remaining resources (work-family facilitation) to offset the resource loss (Hobfoll, 2002). The availability of work-family facilitation in the resource loss process may protect the threatened resources and restore individuals' well-being (Hobfoll, 2002). Based on this reasoning, the present study predicts that work-family facilitation mediates the relationship between work-family conflict and well-being (psychological strain, work outcomes and nonwork satisfaction). The following cross-sectional and longitudinal hypotheses are tested:

Cross-sectional mediating effect hypotheses

Hypothesis 39: Work-family facilitation will mediate the relationship between work-family conflict and psychological strain at Times 1 and 2.

H39a: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H39b: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H39c: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

H39d: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and psychological strain at Times 1 and 2.

Hypothesis 40: Work-family facilitation will mediate the relationship between work-family conflict and turnover intention at Times 1 and 2.

H40a: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H40b: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H40c: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

H40d: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and turnover intention at Times 1 and 2.

Hypothesis 41: Work-family facilitation will mediate the relationship between work-family conflict and job satisfaction and between work-family conflict and job satisfaction at Times 1 and 2.

H41a: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H41b: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H41c: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

H41d: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and job satisfaction at Times 1 and 2.

Hypothesis 42: Work-family facilitation will mediate the relationship between work-family conflict and family satisfaction and between work-family conflict and family satisfaction at Times 1 and 2.

H42a: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H42b: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H42c: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

H42d: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and family satisfaction at Times 1 and 2.

Hypothesis 43: Work-family facilitation will mediate the relationship between work-family conflict and life satisfaction and between work-family conflict and life satisfaction at Times 1 and 2.

H43a: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H43b: WFF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H43c: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

H43d: FWF (i) affect, (ii) behaviour, and (iii) value will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour and life satisfaction at Times 1 and 2.

Longitudinal mediating effect hypotheses

Hypothesis 44: Work-family facilitation will mediate the relationship between work-family conflict and psychological strain over time.

H44a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H44b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H44c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

H44d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and psychological strain at Time 2.

Hypothesis 45: Work-family facilitation will mediate the relationship between work-family conflict and turnover intention over time.

H45a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H45b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H45c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

H45d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and turnover intention at Time 2.

Hypothesis 46: Work-family facilitation will mediate the relationship between work-family conflict and job satisfaction over time.

H46a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H46b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H46c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

H46d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and job satisfaction at Time 2.

Hypothesis 47: Work-family facilitation will mediate the relationship between work-family conflict and family satisfaction over time.

H47a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H47b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H47c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

H47d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and family satisfaction at Time 2.

Hypothesis 48: Work-family facilitation will mediate the relationship between work-family conflict and life satisfaction over time.

H48a: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H48b: WFF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H48c: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between WFC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

H48d: FWF (i) affect, (ii) behaviour, and (iii) value at Time 1 will mediate the relationships between FWC (i) time, (ii) strain, and (iii) behaviour at Time 1 and life satisfaction at Time 2.

3.3 Chapter summary

This chapter discusses the theoretical model and hypotheses tested in the present study. Two theoretical models are proposed in this study (Model A and Model B) and the models are built upon role theory and conservation of resources theory. The first model (Model A) suggests that work-family conflict (WFC and FWC time, strain, and behaviour) is associated with reduced well-being, while coping and work-family facilitation are associated with increased well-being. Model A incorporates the moderating roles of two types of coping strategies: problem-focused and emotion-focused coping, and six types of work-family facilitation (WFF and FWF affective, behaviour, and value) in the relationship between work-family conflict and well-being. While Model A is a moderating model, Model B proposes mediating effects of work-family facilitation on the relationship between work-family conflict and well-being.

To assess the longitudinal effects of work-family conflict, coping, and work-family facilitation on well-being, the longitudinal direct effect, moderating effect, and mediating effect hypotheses were proposed by using two-wave study design. The next chapter discusses research methodology used in the present study.

CHAPTER 4

METHODOLOGY

Chapter overview

This chapter provides an overview of the research methodology used in this study by discussing the research design, participants, measures, procedures, and analysis plan.

4.1 Research Design

The present study employed a longitudinal design with a six- to eight-month interval between Time 1 and Time 2 data collection. Longitudinal design is important because it might support the assessment of causality over time and patterns of change over time. As there is insufficient evidence on the appropriate time lag for the effects of particular predictors on criterion variables, the six to eight months interval was chosen for this study due to organisational reasons (Zapf et al., 1996) such as an assumption that this duration would be able to elicit work-family conflict experiences among participants. The moderation and mediation effects were tested both cross-sectionally and longitudinally in this study because the cross-sectional study alone provides little insight on how variables change over time and this may lead to invalid conclusions (Maxwell & Cole, 2007). A self-report survey was employed in this study because it is appropriate for the type of information gathered.

4.2 Participants

4.2.1 Time 1

The participants in this study consisted of full-time (at least those who worked 30 hours per week) employed women in Malaysia representing the local authority, construction industry, education and training industry, manufacturing, finance, and other industries (i.e., legal, optometry, jewellery, and automobile). The recruitment of participants from various industries may help to increase the generalisability of the results because it covered a wide range of organisational conditions. Twenty-three other organisations from various industries in Malaysia were approached to increase the sample size of this study but those organisations either did not provide any response at all or declined to participate. The most cited reasons for declining the offer were too many requests for survey participation, time pressure on the organisation, and irrelevance of the survey to the organisational interests.

The questionnaires were distributed online for five industries and a hard copy version for one industry to enable all industries involved taking part in this survey. At Time 1, a total number of 283 hard copy version of the questionnaires were completed out of 1500 questionnaires distributed in an industry, representing a response rate of 19%. According to Jobber and colleagues (1991), the response rate of 19% is a typical value for surveys responses in Malaysia. However, missing and incomplete data reduced this number to 270 for the hard copy version. In other words, thirteen out of 283 participants did not answer at least 50% of the predictor variables (work-family conflict, work-family facilitation, coping) and criterion variables (psychological strain, turnover intentions, and satisfaction) in the questionnaires, and these thirteen respondents were removed

from the analysis. In terms of the online survey, 857 participants from five industries accessed the link but only 470 completed responses were obtained, indicating a response rate of 54.8%. The first stage of data collection started between February and April 2010.

Participants from the local authority industry were recruited from an organisation that is responsible for public health services, pollution control, environmental protection, town and road planning, drainage and river systems maintenance, infrastructure management, as well as social and economic development of 1.5 million people in Kuala Lumpur. This organisation has 27 units and departments with a total number of employees surpassing 11,000. Additionally, participants from the construction industry were employed from a leading Malaysian organisation involved in infrastructure and property development, general and special trade construction, as well as civil engineering. This organisation is actively present in 13 countries and has six departments with more than 700 employees. Participants from the manufacturing industry were recruited from an organisation involved in flour production, with six branches throughout Malaysia. On the other hand, participants from education and training industry were recruited from four educational and training institutions, while participants from the finance industry were employed from three financial institutions in Malaysia. The other participants were recruited from legal, optometry, jewellery, and automobile industries.

Table 4.1 presents the breakdown of the characteristics of the final sample of employed women in this study.

Table 4.1: Demographic characteristics of the participants at Time 1 and Time 2

	Time 1			**Time 2**		
Demographic Characteristics	**Mean**	**SD**	**Range**	**Mean**	**SD**	**Range**
Age (years)	34 years	8.68	18 – 60	35 years	8.58	20 – 60
Organisational tenure (years)	8 years & 3 months	98.68	1 month – 36 years & 4 months	10 years & 2 months	103.53	2 months – 36 years & 11 months
Job tenure (years)	6 years & 6 months	84.22	1 month – 36 years	8 years & 3 months	91.40	2 months – 33 years

	Time 1		**Time 2**	
Demographic Characteristics	***f***	**%**	***f***	**%**
Marital status				
Married	503	68.4	142	67.9
Non-married	207	31.6	68	32.1
Ethnic Group				
Malay	702	95.1	197	93.8
Chinese	20	2.7	7	3.3
Indian	11	1.5	4	1.9
Others	7	0.7	2	1.0
Highest qualification				
PhD/Master/ Postgraduate diploma	126	17.5	37	18.1
Bachelor Degree	241	33.4	68	33.3
Diploma	120	16.6	36	17.6
Secondary education	228	31.6	61	29.9
Primary education	6	0.8	2	1.0
Industry				
Local authority	270	36.5	94	44.8
Construction	163	22.0	45	21.4
Education & training	135	18.2	29	13.8
Manufacturing	65	8.8	16	7.6
Finance	63	8.5	17	8.1
Other	44	6.0	9	4.3

At Time 1, the participants' age ranged from 18 years to 60 years with a mean age of 34 years. On average, the participants reported tenure with their current organisation of 8 years and 3 months (minimum = 1 month, maximum = 36 years and 4 months, *SD* = 98.68) and 6 years and 6 months with their current

job (minimum = 1 month, maximum = 36 years, *SD* = 84.22) at Time 1. Altogether, 68.4% (*n* = 503) were married and 31.6% (*n* = 237) were single (unmarried, divorced or widowed) at Time 1. The largest ethnic group represented in the sample was Malay (95.1%, *n* = 702), followed by Chinese (2.7%, *n* = 20), Indian (1.5%, *n* = 11), and others (0.7%, *n* = 7) at Time 1.

In addition, 0.8% of participants had primary education (*n* = 6) and 31.6% with secondary education (*n* = 228). The rest held either diplomas (16.6%, *n* = 120), undergraduate degrees (33.4%, *n* = 241) or postgraduate degrees (17.5%, n = 126) at Time 1. At Time 1, the majority of the employed women came from the local authority (36.5%) and construction industry (22%), while the remainder were from the education and training industry (18.2%), finance industry (8.8%), manufacturing industry (8.5%), and other industry (6.0%).

4.2.2 Time 2

The Time 2 data collection started in September 2010. Two reminders of the follow-up study were sent to participants in May and August 2010 via the representatives in each industry. A total number of 117 hard copy versions were completed out of 1500 questionnaires distributed, indicating a response rate of 7.8%. However, missing and incomplete data reduced this number to 94. In other words, 23 out of 117 participants did not answer more than 50% of the predictor (work-family conflict, work-family facilitation, coping) and criterion variables (psychological strain, turnover intentions, and satisfaction) in the questionnaires, and these were removed from the analysis. The low response rate at Time 2 from this industry might possibly be related to internal reshuffling of staff.

In terms of the online survey, 237 participants from five industries accessed the link but only 116 completed responses were obtained, indicating a response rate of 49%. As this was a longitudinal study, and the data were collected at two time points, Time 1 and Time 2 participants were matched by using their Malaysian identification number which they needed to fill in before completing the survey. The participants who answered the questionnaires for the first time at Time 2 were grouped as Time 1 participants.

According to Table 4.1, at Time 2, the participants' age ranged from 20 years to 60 years with a mean age of 35 years, which is quite similar to Time 1. On average, the participants reported tenure with their current organisation of 10 years and 2 months (minimum = 2 months, maximum = 36 years and 11 months, *SD* = 103.53) and 8 years and 3 months with their current job (minimum = 2 months, maximum = 33 years, *SD* = 84.22) at Time 2, which are slightly higher than Time 1. The slight increase in the duration of organisational tenure and job tenure reported by participants might be attributable to the six- to eight-month time interval between Time 1 and Time 2 data collection. Altogether, 67.9% of participants (*n* = 142) were married and 32.1% (*n* = 68) were single (unmarried, divorced or widowed) at Time 2, which is quite similar to Time 1. At Time 2, the largest ethnic group represented in the sample was Malay (93.8%, *n* = 197), followed by Chinese (3.3%, *n* = 7), Indian (1.9%, *n* = 4), and others (1.0%, *n* = 2), which is similar to Time 1.

Additionally, 1% of participants had primary education (*n* = 2) and 29.9% with secondary education (*n* = 61). The rest held either diplomas (17.6%, *n* = 36), undergraduate degrees (33.3%, *n* = 68) or postgraduate degrees (18.1%, n = 37) at Time, which is quite similar to Time 1. Similar to Time 1, the majority of

employed women at Time 2 came from the local authority (44.8%) and construction industry (21.4%), while the remainder were from the education and training industry (13.8%), finance industry (8.1%), manufacturing industry (7.6%), and other industry (4.3%). Overall, the demographic characteristics of Time 2 participants were similar to the demographic characteristics of Time 1 participants.

4.3 Measures

The questionnaire consisted of ninety two items measuring nine constructs and sixteen demographic variables. Three areas comprised the predictor, moderating and outcome variables, derived from the theoretical model in Figures 3.1 and 3.2 (Chapter 3). All constructs were assessed with pre existing measures from the literature. The mean score of all items in each scale was calculated in order to obtain a scale-score for each person on each variable. A more detailed description of the measures is offered below.

Work-Family Conflict

The 18-item measure developed by Carlson, Kacmar and Williams (2000) was used to assess work-to-family conflict (WFC) and family-to-work conflict (FWC) (refer to Appendix 2, Section 1 for the full measure). Responses were on a five-point scale (1 = strongly disagree to 5 = strongly agree). According to Carlson and colleagues (2000b), the scale contains six subscales: WFC time (a = 0.87), FWC time (a = 0.79), WFC strain (a = 0.85), FWC strain (a = 0.87), WFC behaviour (a = 0.78), and FWC behaviour (a = 0.85).

Sample items included in the scales were (i) "The time I must devote to my job keeps me from participating equally in household responsibilities and activities" (WFC time); (ii) "I have to miss work activities due to the amount of time I must spend on family responsibilities" (FWC time); (iii) "Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy" (WFC strain); (iv) "Tension and anxiety from my family life often weaken my ability to do my job" (FWC strain); (v) "Behaviour that is effective and necessary for me at work would be counterproductive at home" (WFC behaviour); and (vi) "The behaviours that work for me at home do not seem to be effective at work" (FWC behaviour). The internal consistencies of all work-family conflict sub-scales in this study were (i) WFC time (T1 = 0.87, T2 = 0.86); (ii) FWC time (T1 = 0.76, T2 = 0.71); (iii) WFC strain (T1 = 0.80, T2 = 0.83); (iv) FWC strain (T1 = 0.80, T2 = 0.64); (v) WFC behaviour (T1 = 0.79, T2 =0.72); and (vi) FWC behaviour (T1 = 0.88, T2 =0.81).

Coping

Coping strategies were measured by a coping scale developed by Aryee and colleagues (1999). The scale consists of 16 items, with eight items for each type of coping strategy (i.e., problem- and emotion-focused coping) (refer to Appendix 2, Section 2 for the full measure). Responses were on a five-point scale, ranging from "1 = never" to "5 = always". The internal consistency for the problem-focused coping was 0.74 and for the emotion-focused coping was 0.78 (Aryee, Luk, Leong, et al., 1999). The scale was chosen by the researcher because it measures coping specifically for work-family conflict.

Sample items included in the scales were (i) "Planned, scheduled, and organized carefully" (problem-focused coping); (ii) "Enlisted assistance such as babysitters or domestic helper to do daily household chores" (problem-focused coping); (iii) "Accepted the situation because there was little you could do about it" (emotion-focused coping); and (iv) "Tried to see the positive side of the situation" (emotion-focused coping). In this study, the internal consistency of the problem-focused coping subscale was 0.72 at Time 1 and 0.68 at Time and the emotion-focused coping subscale was 0.77 at Time 1 and 0.76 at Time 2.

Work-family facilitation

The Multidimensional Work-Family Spillover Scale (Hanson et al., 2006), which consists of 22 items, was utilised to measure facilitation (refer to Attachment 2, Section 3 for full measure). The scale consists six types of work-family facilitation: WFF affective (a = 0.90), WFF behaviour (a = 0.94), WFF value (a = 0.94), FWF affective (a = 0.83), FWF behaviour (a = 0.95), and FWF value (a = 0.95) (Hanson et al., 2006). Participants were asked to indicate their agreement on a 5-point Likert scale ranging from "1 = strongly disagree" to "5 = strongly agree".

Sample items included in the scales were (i) "Being in a positive mood at work helps me to be in a positive mood at home" (WFF affective); (ii) "Having a good day with my family allows me to be optimistic at work" (FWF affective); (iii) "Successfully performing tasks at work helps me to more effectively accomplish family tasks" (WFF behaviour); (iv) "Skills developed in my family life help me in my job" (FWF behaviour); (v) "I apply my workplace values in family situations" (WFF value); and (vi) "Values that I learn through family

experiences assist me in fulfilling my work responsibilities" (FWF value). The internal consistencies of all work-family facilitation sub-scales in this study were (i) WFF affective (T1 = 0.92, T2 = 0.87); (ii) FWF affective (T1 = 0.92, T2 = 0.93); (iii) WFF behaviour (T1 = 0.89, T2 = 0.89) for; (iv) FWF behaviour (T1 = 0.92, T2 = 0.91); (v) WFF value (T1 = 0.86, T2 = 0.82); and (vi) FWF value (T1 = 0.88, T2 = 0.88).

Psychological strain

The General Health Questionnaire-8 (Kalliath et al., 2004) was used to measure psychological well-being (refer to Attachment 2, Section 4 for full measure). The scale consists of two subscales (i.e. social dysfunction and anxiety/depression) with four items each. Participants were asked to rate on a 6-point scale ("1 = never" to "6 = all the time"), indicating how they felt over the previous three months. It was assumed that within 3 months duration, the participants would be exposed to the psychological strain symptoms resulting from WFC and FWC. The coefficient alpha for this scale was .91 (Kalliath et al., 2004). Sample items included in the scales were (i) "Felt capable of making decision about things" (social dysfunction) and (ii) "Been losing confidence in yourself" (anxiety/depression). In the present study, the internal consistency of the social dysfunction subscale was 0.80 at Time 1 and 0.82 at Time 2 and the anxiety/depression subscale was 0.82 at both at Times 1 and 2.

Turnover intention

Turnover intention items were developed by Bozeman and Perrewe (2001). Responses were on a five-point scale, ranging from "1 = strongly

disagree" to "5 = strongly agree" (refer to Attachment 2, Section 5 for full measure). The reliability estimate for this scale was .94 (Bozeman & Perrewe, 2001). This scale consists of two positively worded items (e.g. "I will probably look for a new job in the near future") and three negatively worded items (e.g. "I am not thinking about quitting my job at the present time"). The scores for negatively worded items were reversed before further analysis. The internal consistency of the turnover intention scale in the present study was 0.91 at Time 1 and 0.82 at Time 2.

Job Satisfaction

The Michigan Organizational Assessment Questionnaire by Cammann and colleagues (1979), consisting of three items was, used to measure overall job satisfaction. The coefficient alpha for this scale was .77 (Cook, Hepworth, Wall, & Warr, 1981). Responses were on a five-point scale, ranging from "1 = strongly disagree" to "5 = strongly agree" (refer to Attachment 2, Section 6 for full measure). This scale consists of two positively worded items (e.g., "All in all, I am satisfied with my job") and one negatively worded item (e.g., "In general, I don't like my job"). The score for negatively worded item was reversed before further analysis. The internal consistency of the job satisfaction scale was 0.81 at Time 1 and 0.69 at Time 2.

Family Satisfaction

Family satisfaction was measured using the 5-item family satisfaction scale developed by Alfonso and colleagues (1996). Items were rated on a five-point Likert scale, ranging from "1 = strongly disagree" to "5 = strongly agree" (refer to Attachment 2, Section 7 for full measure). The coefficient alpha for this

scale was .96 (Alfonso et al., 1996). Sample items included in this scale for the present study were (i) "I am satisfied with my family life" and (ii) "So far, I have gotten the important things I want from my family life". The internal consistency of the family satisfaction scale in the present study was 0.92 at Time 1 and 0.91 at Time 2.

Life Satisfaction

Life satisfaction was measured using the 5-item general satisfaction scale developed by Alfonso and colleagues (1996). Items range from "strongly disagree" to "strongly agree (refer to Attachment 2, Section 8 for full measure). The coefficient alpha for this scale was .89 (Alfonso et al., 1996). Among the items included in this scale for the present study were (i) "In most ways, my life is close to my ideal" and (ii) "So I am satisfied with my life". The internal consistency of the life satisfaction scale in this study was 0.92 at Time 1 and 0.92 at Time 2.

Negative affectivity (NA) and demographic variables were included in the present study as control variables due to their general potential to inflate or suppress relations between other variables (McCrae, 1990; Staines, Pottick, & Fudge, 1986).

Negative affectivity (NA)

Negative affectivity (NA) is a dispositional component that indicates individual differences in terms of self concept and negative emotionality and is stable over time. Many studies found that NA affects the relationship between stressors and strains (Burke et al., 1993; McCrae, 1990; Moyle, 1995) and influences coping effectiveness (McCrae & Costa Jr, 1986). Individuals who are

categorised as high in NA are prone to worry and depression. As such, people who are high in NA might perceive more life stress than those who are low in NA, even when they face identical situations. Hence, literature suggested that the effects of NA should be partialled out before testing hypotheses related to stressors and strain (Payne, 1988).

In the present study, NA was measured using a 10-item negative affect scale (refer to Attachment 2, Section 9 for full measure) developed by Watson and colleagues (Watson, Clark, & Tellegen, 1988) that describes how people feel. The responses range from "1 = very slightly or not at all" to "5 = extremely". The internal consistency for this scale was .87 (Watson et al., 1988). Sample items included in the NA scale in this study were (i) "distress"; (ii) "upset"; (iii) "ashamed"; and (iv) "nervous". The internal consistency of the NA scale in this study was 0.90 at Time 1 and 0.92 at Time 2.

4.4 Procedure

This section describes the (a) methods of distributing questionnaires and (b) translation and back translation process of the questionnaires.

4.4.1 Distribution of questionnaires and link for online survey

A list of Malaysian organisations was generated and an invitation was sent to the Human Resource Managers or organisational representatives of each organisation after ethical approval was obtained from the School of Psychology Research and Ethics Committee at the University of Waikato was obtained. They were approached via phone calls, emails, and/or letters asking them to participate in a longitudinal study with two stages of data collection separated by a six- to

eight-month interval. The first stage of data collection began in February 2010 for most organisations. The second stage of data collection generally started in September 2010, but some organisations which were sent out the Time 1 survey in September-November 2010 started the Time 2 survey in May-July 2011. The voluntary nature of participation and confidentiality of the information relating to the participants were stressed to each organisation.

One industry (local authority) agreed to participate by using a hard copy version and the other five industries (construction industry, education and training industry, manufacturing industry, finance industry, and other industry) agreed to participate by using the online survey. The online survey was inconvenient for one participating industry (local authority) because of some restriction on the internet accessibility among employees. Once the participants from the local authority agreed to participate in this study (via hardcopy version), the researcher provided sealed self-administered questionnaires with stamps and return address envelopes for distribution among female employees via internal mail. The pre-stamped reply envelopes were included to facilitate the successful return of completed questionnaires. Two reminder memos were sent to the participants via the representative of the organisation two and four months after the distribution of the questionnaire in order to increase the questionnaire return rate.

For the other five industries, a link to the Qualtrics survey was provided to the representatives of each industry to facilitate the completion of the online survey. The link was then forwarded to all female employees in each participating organisation by the representatives. Once the participants completed the online survey, all responses were recorded in an Excel database and were imported to Statistical Package for the Social Sciences (SPSS) version 18. Similarly, two

reminders were sent via emails to the representatives to be forwarded to the participants. A complete, step-by-step guideline for submission was made available via the URL.

Before answering the questionnaire, both hard copy and online versions, the participants were asked to indicate their Malaysian identification number which included the date of birth in reverse order, state code, and individual code for the coding and analysis purpose, which was necessary for matching the Time 1 and Time 2 data. The participants were reminded to use the same code for Time 2 data. The researcher's email address and phone number were provided to all participants for any inquiry on the questionnaire and for sending the summary of research results based on their requests. Some participants who faced difficulties in accessing the URL for the online survey and/or those who were interested in the research findings summary contacted the researcher. A summary of the research findings was provided to the participants via email based on their requests. The participants were also offered to join a lucky draw competition with four prizes worth MYR100 (NZD50) each in order to encourage them to participate in this research. The offering of these incentives indicates that the researcher acknowledges and values the participants' time and effort in answering the questionnaire. This incentive is important because Malaysians value reciprocity and mutuality (Storz, 1999).

4.4.2 Translation and back translation

As the original scales were in English, the questionnaire was translated into Malay before being administered to the participants, since Malay is the first language of the population. An expert in both languages (i.e. English and Malay)

translated the questionnaire into Malay and the version was reviewed by the researcher before the process of back translation, so as to ensure the content of each translated item was correct. Then, two experts in both languages translated the questionnaires back into English. Two different persons were chosen for the back translation process so that any inconsistency of the meaning of each translated item might be identified. The Malay versions were finally revised by the researcher and another Malaysian researcher who was completing her doctoral degree in Psychology at the University of Waikato to ensure that the items were free from cultural sensitivity and to eliminate discrepancies between the original English version and the retranslated English version. The content of the questionnaire was consistent between the original English version and the back translated English version.

After translating the questionnaire, a pilot study was conducted in order to ensure that the content of the translated version of the questionnaire was understood by the population under study. In this pilot study, the questionnaires were distributed to six Malaysian employed women from the participating industries. They were requested to give their comments regarding each item in the questionnaire. Based on their feedback in the pilot study, the researcher made necessary amendments to the layout and wording of items before proceeding with the data collection. Employed women who took part in the pilot study were excluded from further participation in this research.

Demographic Variables

Age, job tenure, organisational tenure, marital status, ethnic group, highest qualification, and industry type were asked.

4.5 Analysis

This section describes the methods utilized in this research to analyse the data, including data preparation, scale validation, and statistical methods used to investigate hypotheses.

4.5.1 Data preparation

The online responses from Times 1 and 2 were downloaded from the online Qualtrics survey into SPSS format. The hard copy version data were also entered into SPSS for further analysis. Any data error and missing values for all items were checked by using the frequencies application in the SPSS. For the hardcopy version, 13 cases were dropped at Time 1 and 23 cases were dropped at Time 2 due to incomplete and missing responses (more than 50%). As for the online version, 387 cases were dropped at Time 1 and 121 cases were dropped at Time 2 because more than 50% of the responses were missing. Next, scores of the items in the turnover intentions and job satisfaction scales that were negatively worded were reversed. Subsequently, person mean substitution was used to replace any missing data as suggested by Downey and King (1998).

4.5.2 Scale validation

Although the factor structures of the measures used in this study were identified by the previous researchers (Alfonso et al., 1996; Aryee, Luk, Leong, et al., 1999; Carlson et al., 2000; Hanson et al., 2006; Kalliath et al., 2004), it is important for the researcher to conduct Confirmatory Factor Analysis (CFA) so that the existence of the relationship between the variables under study and their underlying latent constructs could be tested in the present research (Brown, 2006).

Thus, before testing the research models, CFAs using AMOS version 18 were conducted to confirm the factor structure of all scales at Times 1 and 2. The CFA results and reliability of the revised measures based on CFAs are described in Chapter 5.

4.5.3 Statistical methods

Descriptive statistics

Descriptive statistics using SPSS were calculated to provide means, standard deviations, and correlations after validating all variables under study using CFAs (Chapter 5). Then, the main and moderating effects were tested by using hierarchical regression, as this method is the most popular statistical tool for estimating interaction effects in organisational settings (Aguinis, Gottfredson, & Wright, 2011). In addition, hierarchical regression enables the researcher to control certain variables such as demographic and personality variables when examining the effects of the predictors on the criterion variables. Before conducting the hierarchical regressions, the values of the predictors and moderators were centred by subtracting the sample mean from all individual scores on each item so as to eliminate multicollinearity between the predictors (Aiken & West, 1991).

Cross-sectional hierarchical regression

In order to test the cross-sectional main and moderating effects hypotheses at Time 1 and Time 2, the variables were entered in the regression analysis in four steps. First, demographic variables (age, industry, organisational tenure, and job tenure) were entered to control for any possible confounding effect. For industry,

dummy variables for five industries (construction, education and training, manufacturing, finance, and other industry) were created and the remaining one industry (city hall) was assigned as the reference variable. Second, negative affectivity was entered as another set of control variables. The demographic variables and negative affectivity were entered as separate control variables in the regression analyses because the researcher was interested to look at the different effects of each set of variables on each criterion variable. Third, work-family conflict, coping, and work-family facilitation were entered. Fourth, the interactions of interest (work-family conflict X coping and work-family conflict X work-family facilitation) were entered. Separate hierarchical regression analysis was conducted for each criterion variable (psychological strain, turnover intention, job satisfaction, family satisfaction, and life satisfaction). Next, each interaction was plotted as suggested by Aiken and West (1991).

Longitudinal hierarchical regression

In order to test the longitudinal main and moderating hypotheses, the Time 2 criterion variables were regressed on the predictors and moderators at Time 1. The moderation analyses included five steps. In Step 1, the criterion variable at Time 1 was entered to control the initial level of that criterion variable. In Step 2, the demographic variables were entered to control for any possible confounding effect. In Step 3, negative affectivity variables were entered as another set of control variable. Negative affectivity were controlled separately because the researcher was interested to look at the relationships of NA with the criterion variables, not the beta values of the demographic variables on each criterion variable. In step 4, work-family conflict, coping, and work-family facilitation at

Time 1 were entered to examine the main effects of Time 1 predictors on Time 2 criterion variables. In Step 5, the interaction terms between work-family conflict and coping and between work-family conflict and work-family facilitation at Time 1 were entered to test the longitudinal moderating effects of coping and work-family facilitation. Separate regression analyses were conducted for each criterion variable at Time 2.

Cross-sectional Structural Equation Modelling (SEM)

The cross-sectional mediation effects at Times 1 and 2 were tested by using Structural Equation Modelling (SEM). SEM is used because it provides a more efficient simultaneous estimation than regression analysis, both theoretically and empirically (Iacobucci, Saldanha, & Deng, 2007). The chi-square test (χ^2), the ratio of chi-square to the degree of freedom ($\chi^2/df \leq 3.00$), the root mean square residual (RMR ≤ 0.09), the root mean square error of approximation (RMSEA ≤ 0.05), and the comparative fit index (CFI ≥ 0.90) were tested as the fit statistics (Byrne, 2010).

If the hypothesised model did not provide acceptable fit statistics, model respecification involving model trimming or adding direct effects was applied (Kline, 2011). The fit indices and chi-square difference between models (before and after modification) were compared to determine significant differences between the models. Then the indirect, direct, and total effects for the mediation routes were examined to test the specific mediation effect of each hypothesised mediator. Bootstrapping method by using 1000 bootstrap samples and bias-corrected confidence intervals were used to determine the statistical significance of the mediation effects (Shrout & Bolger, 2002).

Longitudinal SEM

As cross-sectional studies might be biased and misleading because the mediators and criterion variables were not controlled before analysing the data, the longitudinal SEM analysis enables researchers to control the prior levels of criterion variables (Cole & Maxwell, 2003). Hence, longitudinal analysis by using SEM was used to test the longitudinal mediation hypotheses by regressing the Time 2 criterion variables on Time 1 predictors and mediators.

Chapter summary

This chapter described the methodology used in the current research, including the research design, participants, measures, procedures, and analysis plan. The CFA results for all measures used in this study are presented in Chapter 5. In addition, the results of cross-sectional Time 1 and Time 2 analyses are presented in Chapters 6 and 7. The results of longitudinal analyses are presented in Chapter 8.

CHAPTER 5

PSYCHOMETRIC ANALYSES

Chapter Overview

This chapter presents the psychometric analyses of the measures used in this study. According to Brown (2006), measure validation is important in order to test the relationship between the variables under study and their underlying latent constructs. The psychometric analyses were conducted in three major steps and the structure of this chapter reflects this approach. Firstly, the handling of missing values and outliers in the data is discussed. Secondly, the results of confirmatory factor analysis (CFA) for all measures in this study are presented. Finally, reliability and normality of the final research measures are presented.

5.1 Missing values and outliers

Prior to the CFA, all items in each of the measures were first examined separately at Times 1 and 2 for missing data. The variables for 1140 participants at Time 1 (283 hard copy questionnaires and 857 online surveys) and 354 participants at Time 2 (117 hard copy questionnaires and 237 online surveys) were examined separately. At Time 1, it was found that 400 cases (13 hard copy questionnaires and 387 online surveys) had a large number of missing data, in which more than 50% of the items in the predictors (e.g. work-family conflict, coping, and work-family facilitation) and criterion measures (e.g. psychological distress, family satisfaction, and life satisfaction) were not answered by participants. Therefore, these 400 cases were removed from the analysis, resulting

in 740 of the original sample at Time 1. At Time 2, 144 cases (23 hard copy questionnaires and 121 online surveys) with more than 50% of missing data in the predictors (e.g. work-family facilitation) and criterion measures (e.g. family satisfaction and life satisfaction) were removed, resulting in 210 for further analysis.

Secondly, out of range values, implausible means and standard deviations, and cases with small numbers of random missing values (less than 50%) were screened and outliers were examined. The missing values on each case were replaced by the mean score of the scale for that particular case. For example, if there was a missing value in item 3 of life satisfaction scale in Case 120, the mean score on the life satisfaction scale for Case 120 was used to replace the missing value in that particular case. The data screening identified 15 cases at Time 1 and eight cases at Time 2 as consistent multivariate outliers on most of the predictors and criterion variables. Further investigation of the data was conducted by performing a series of linear regressions with and without the presence of the multivariate outliers. Each criterion variable was regressed onto all predictors to examine differences in the significance level (p) and direction (β) in both conditions (with and without outliers). The results indicated small differences between the two conditions, with and without the multivariate outliers. Therefore, all cases were retained for both Times 1 and 2. A summary of the differences is presented in Appendix 3.

5.2 Confirmatory Factor Analyses

The factor structures of the variables under study were examined by conducting CFA (confirmatory factor analysis) using AMOS 18 with maximum

likelihood estimation on each of the measures (i.e. work family conflict, coping, work family facilitation, psychological distress, turnover intention, job satisfaction, family satisfaction, life satisfaction, and negative affectivity). The CFAs were conducted to examine the goodness of fit and to verify the factor structure of each measure. Byrne (2010) suggested that the evaluation of model fit should focus on the adequacy of the model as a whole.

As suggested by the literature (Jackson, Gillaspy, Purc-Stephenson, 2009; Kline, 2011), the results of multiple fit indices such as the ratio of chi-square to degrees of freedom (χ^2/df), the comparative fit index (CFI), the root mean square error of approximation (RMSEA) with 90% confidence interval, the standardised root mean square residual (SRMR), and the goodness-of-fit index (GFI) were examined in testing the model. Chi-square (χ^2) is a model fit index that exhibits the extent to which the covariance of the structural model matches the sample covariance. According to Byrne (2010), a non-significant χ^2 value indicates a good fit to the data but this value is always inflated and statistically significant in large sample sizes. Therefore the χ^2/df has been referred to in addition to the χ^2 value. A measurement model was considered as having a reasonable fit when the value of χ^2/df is 5.00 or less (Brown, 2006; Jackson, Wall, Martin, & Davids, 1993). The difference in χ^2 ($\Delta\chi^2$) was used to compare the fit between two or more models. The $\Delta\chi^2$ value indicates the improvement of one model over the others (Byrne, 2010).

CFI value (ranging from 0 to 1) reflects a comparison between the hypothesized model and a baseline model, with a value of 0.90 and above indicating a good fit to the data (Brown, 2006). The RMSEA is a fit statistic that reflects the error of approximation in the population. Values less than 0.05

represent good fit and values up to 0.08 are acceptable (Kline, 2011). According to Byrne (2010), a very narrow 90% confidence interval of RMSEA indicates a precise RMSEA value and model fit. SRMR is the average value of all standard residuals. The threshold of SRMR ranges from 0 to 1, with small values (less than 0.10) indicating a good fitting model (Brown, 2006). The absolute fit of the models is represented by the GFI value which ranges from 0 to 1, with values more than 0.90 indicating a good-fitting model (Brown, 2006).

Furthermore, when a model had poor fit, items with low standardised factor loadings (less than 0.45) and low squared multiple correlations (R^2) (less than 0.40) were removed individually and sequentially. The cut-off point for the standardised factor loading in the present study was 0.45 (20% overlapping variance) (Lane, Harwood, Terry, & Karageorghis, 2004; Tabachnik & Fidell, 2001). When the standardised factor loadings and R^2 of items were low, the items were deleted and the goodness-of-fit indices before and after item deletion were compared.

In cases where the goodness-of-fit showed no substantial improvement after item deletion, the deleted items were included in the model. In cases where the fit indices were far below the acceptable levels regardless of high standardised factor loadings (above 0.45) and R^2 (above 0.40), the modification indices and residuals were examined. Items with the highest modification indices and the largest residuals were deleted because high modification indices indicate the presence of factor cross-loadings and error covariances, while large residuals signify the misspecification of the related items in the model (Hooper, Coughlan, & Mullen, 2008; Yoo & Donthu, 2001). If the fit statistics showed no substantial improvement after item deletion, the deleted items were included in the model.

The following sections describe the CFA results for all measures at Time 1 and Time 2.

5.2.1 Work-family conflict

The work-family conflict measure (Carlson et al., 2000) used in this study comprised two dimensions: work-to-family conflict (WFC) and family-to-work conflict (FWC). The CFAs of work-to-family conflict (WFC) and family-to-work conflict (FWC) were examined separately because both scales (WFC and FWC) measure different dimensions of work-family conflict.

5.2.1.1 Work-to-family conflict

A series of CFAs for WFC were conducted at both times to identify the best model for the data and the results are shown in Table 5.1. A one-factor model of WFC with nine items was assessed for Times 1 and 2 but the results indicated a poor fit of the model to the data.

Table 5.1

Fit indices for WFC measure

Model	$\chi^{\square}$	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi^2$
Time 1, n = 740								
3-factor	75.44	24	3.14	0.03	0.05	0.98	0.97	-
1-factor	955.36	27	35.38	0.12	0.21	0.69	0.73	880.19**
Time 2, n = 210								
3-factor	70.52	24	2.93	0.06	0.10	0.94	0.93	-
1-factor	285.12	27	10.56	0.11	0.21	0.71	0.74	214.60**

Note: $\Delta\chi^2$ indicates the differences between the three-factor model and the one-factor model of WFC. The one-factor model contained all items measuring WFC and the three-factor model divided the measure into WFC time, strain, and behaviour. $\Delta\chi^2$ = ** $p < 0.01$.

Next, a three-factor model that differentiated between WFC time, WFC strain, and WFC behaviour was tested at both times. The three-factor model resulted in an acceptable fit of the model to the data at Time 1 and Time 2 (see Table 5.1). The comparisons of χ^2 between the three-factor model and the one-factor model of WFC in Table 5.1 also implied substantial difference between the models, indicating a better fit of the three-factor model. The standardised factor loadings for all items as presented in Table 5.2 were in the acceptable range (0.64 to 0.86 at Time 1 and 0.67 to 0.87 at Time 2). Hence all items were retained and the three-factor model of WFC with nine items was used for further analysis in this study.

Table 5.2

Standardised factor loadings for the three-factor model of WFC

Items	Time 1 (n=740)	Time 2 (n=210)
Work-to-family conflict (WFC) time		
1. My work keeps me from my family activities more than I would like.	0.79	0.85
2. The time I must devote to my job keeps me from participating equally in household responsibilities and activities.	0.86	0.87
3. I have to miss family activities due to the amount of time I must spend on work responsibilities.	0.83	0.73
Work-to-family conflict (WFC) strain		
1. When I get home from work I am often too frazzled to participate in family activities/responsibilities.	0.79	0.79
2. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.	0.85	0.80
3. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.	0.64	0.72
Work-to-family conflict (WFC) behaviour		
1. The problem-solving behaviours that work for me in my job are not effective in resolving problems at home.	0.75	0.76
2. Behaviour that is effective and necessary for me at work would be counterproductive at home.	0.76	0.77
3. The behaviours I perform that make me effective at work do not help me to be a better parent and spouse.	0.72	0.67

5.2.1.2 Family-to-work conflict

Similarly, the CFA results for FWC presented in Table 5.3 indicated that the three-factor model of FWC for Times 1 and 2 fit the data better than the one-factor model.

Table 5.3

Fit indices for FWC measure

Model	$\chi^{\square}$	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi^2$
Time 1, n = 740								
3-factor	103.32	24	4.30	0.03	0.06	0.97	0.97	-
1-factor	1201.15	27	44.48	0.12	0.24	0.62	0.68	1097.83**
Time 2, n = 210								
3-factor	37.63	24	1.56	0.03	0.05	0.98	0.96	-
1-factor	230.37	27	8.53	0.09	0.19	0.73	0.76	192.74**

Note: $\Delta\chi^2$ indicates the differences between the three-factor model and the one-factor model of FWC. The one-factor model contained all items measuring FWC and the three-factor model divided the measure into FWC time, strain, and behaviour. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$.

All fit indices for the three-factor model were in the recommended range (see Table 5.3). The chi-square tests between the three-factor and one-factor models revealed substantial differences between the models at Times 1 and 2, indicating a better fit of the three-factor model. The standardised factor loadings for all FWC items were in the acceptable range at Time 1 (0.57 to 0.92) and Time 2 (0.49 to 0.84) (Table 5.4). Therefore, all items were retained and the three-factor model with nine items was used for further analysis in this study.

Table 5.4

Standardised factor loadings for the three-factor model of FWC

Items	Time 1 (n=740)	Time 2 (n=210)
Family-to-work conflict (FWC) time		
1. The time I spend on family responsibilities often interferes with my work responsibilities.	0.78	0.75
2. The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.	0.83	0.81
3. I have to miss work activities due to the amount of time I must spend on family responsibilities.	0.57	0.51
Family-to-work conflict (FWC) strain		
1. Due to stress at home, I am often preoccupied with family matters at work.	0.67	0.49
2. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.	0.84	0.81
3. Tension and anxiety from my family life often weaken my ability to do my job.	0.79	0.78
Family-to-work conflict (FWC) behaviour		
1. The behaviours that work for me at home do not seem to be effective at work	0.80	0.76
2. Behaviour that is effective and necessary for me at home would be counterproductive at work	0.92	0.83
3. The problem-solving behaviours that work for me at home does not seem to be as useful at work	0.80	0.84

5.2.2 Coping

Initially, the coping measure (Aryee, Luk, Leung, & Lo, 1999) was tested as a one-factor model for both Times 1 and 2 but the results indicated poor fit to the data (see Table 5.5). Then a two-factor model that differentiated between problem-focused and emotion-focused coping, as suggested by Aryee, Luk, Leong, and Lo (1999), was tested, but the results were still out of the acceptable range. Therefore, an alternative four-factor model as suggested by O'Brien and DeLongis (1996) was examined. The CFA results of the four-factor model indicated that all fit indices were in the recommended range, except for the CFI value at Time 2 (0.85).

Table 5.5

Fit indices for the coping measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi^2$
Time 1, n = 740								
4-factor[a]	194.70	48	4.05	0.04	0.06	0.94	0.95	-
4-factor	459.58	98	4.69	0.06	0.07	0.87	0.92	264.88**
2-factor	791.32	103	7.68	0.08	0.09	0.76	0.86	596.62**
1-factor	1262.94	104	12.14	0.10	0.12	0.61	0.77	1068.24**
Time 2, n = 210								
4-factor[a]	108.48	48	2.26	0.07	0.07	0.90	0.91	-
4-factor	212.91	98	2.17	0.07	0.07	0.85	0.88	104.43**
2-factor	279.88	103	2.71	0.10	0.09	0.77	0.84	171.40**
1-factor	457.03	104	4.39	0.11	0.12	0.54	0.73	348.55**

Note: $\Delta\chi^2$ indicates the differences between the four-factor[a] model and other models of the coping measure. The one-factor model contained all items measuring coping, the two-factor model differentiated between problem- and emotion-focused coping, the four-factor model divided the measure into planful problem-solving, support seeking, positive reappraisal, and escape-avoidance with four items in each subscales, and the four-factor[a] model included 12 items with items PPS4,SS2, EA2, and PR2 deleted. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

Hence, the standardised factor loadings for the four-factor model were investigated and it was found that four items (PPS4, SS2, EA2, and PR2) loaded 0.45 and below at Time 1. Based on the factor loadings, item PPS4 was removed, followed by items SS2, EA2, and PR2 (see Table 5.6). Deleting those four items resulted in substantial improvement in the model fit at Time 1. At Time 2, items PPS4 and SS2 loaded below 0.45 (see Table 5.6). To be consistent with the Time 1 model, items PPS4, SS2, EA2, and PR2 were sequentially deleted. The χ2 comparisons between the four-factor model with 12 items and the other models of coping in Table 5.5 showed substantial differences between the models, indicating a better fit of the final four-factor model (with 12 items). The standardised factor loadings of the remaining items were in the recommended range (see Table 5.6). Therefore, the four-factor model with 12 items was used for further analysis in this study.

Table 5.6

Standardised factor loadings for the four-factor model of coping

Items	Time 1 (n = 740)	Time 2 (n = 210)
Planful problem-solving (PPS)		
1. Planned, scheduled, and organise carefully.	0.64	0.50
2. Set priorities so that the most important things get done.	0.75	0.60
3. Tried to be very organized so that you could keep on top of things.	0.69	0.72
4. Talked to others to find a solution to your problems	***0.19***	***0.26***
Support seeking (SS)		
1. Openly discussed conflicts in delegating household chores and child care with spouse.	0.68	0.88
2. Enlisted assistance such as babysitters or domestic helper to do daily household chores.	***0.20***	***0.06***
3. Coordinated your household work schedule with your spouse and children.	0.69	0.67
4. Tried to manage household chores and child care more efficiently.	0.77	0.71
Escape-avoidance (EA)		
1. Tried to put each task out of your mind when not engaged in it.	0.50	0.46
2. Tried to make yourself feel better by eating, exercising or shopping.	**0.39**	**0.50**
3. Reminded yourself that work was not everything.	0.68	0.70
4. Tried not to get concerned about it.	0.76	0.69
Positive reappraisal (PR)		
1. Told yourself that those difficulties were not worth getting upset about.	0.69	0.47
2. Accepted the situation because there was little you could do about it.	**0.45**	**0.47**
3. Tried to see the positive side of the situation.	0.67	0.53
4. Told yourself that time takes care of situations.	0.53	0.59

** The bolded items were deleted from the scale

5.2.3 Work-family facilitation

The work-family facilitation measure used in this study consisted of two dimensions, work-to-family facilitation (WFF) and family-to-work facilitation (FWF) (Hanson et al., 2006). Each dimension comprised three types of facilitation which included affective, behaviour, and value. The CFAs for WFF and FWF were conducted separately because both were measuring different directions of work-family facilitation (work-to-family and family-to-work).

5.2.3.1 Work-to-family facilitation (WFF)

First, a three-factor model of WFF was tested and it yielded a satisfactory fit to the data (see Table 5.7). However, further examination of the factor correlations for this model revealed that the relationships between the latent factors were consistently high (more than 0.70) at both Times 1 and 2. High factor correlations indicate poor discriminant validity between the latent dimensions of the scale. Hence, in order to achieve a more parsimonious solution, it is possible to combine the factors when the factors overlap with one another (Brown, 2006).

Therefore, a one-factor model which combined WFF affective, WFF behaviour, and WFF value was tested. The goodness of fit for this model proved to be very poor (see Table 5.7) and thus the standardised factor loadings and squared multiple correlation (R^2) were examined. However, none of the standardised factor loadings were less than 0.45 and none of the R^2 value were less than 0.40 at Times 1 and 2. Thus, the modification indices were referred to, and items with the highest modification indices and the largest residuals were deleted sequentially, one after another.

Based on the CFA results, items WFF3 and WFF2 had the highest modification index and the largest residuals. The wordings of both items (WFF3 and WFF2) were similar with the wording of item WFF4, indicating redundancy of the items (see Table 5.8). Hence, item WFF3 was deleted, followed by item WFF2. The objective of the respecification of this model was not to improve the overall model fit, but to acquire a more parsimonious solution (Brown, 2006). The goodness of fit for the one-factor model improved with the deletion of both items, compared to the original one-factor model (see Table 5.7).

Table 5.7

Fit indices for the WFF measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi2$
Time 1, n = 740								
1-factor[a]	453.13	27	16.78	0.05	0.14	0.90	0.85	-
3-factor	360.98	41	8.80	0.05	0.10	0.94	0.91	92.15
1-factor	1556.03	44	35.36	0.09	0.21	0.76	0.65	1102.89***
Table 5.7 Fit indices for the WFF measure (continued)								
Time 2, n = 210								
1-factor[a]	122.73	27	4.54	0.04	0.13	0.93	0.87	-
3-factor	128.58	41	3.13	0.04	0.10	0.95	0.90	5.85
1-factor	383.92	44	8.72	0.08	0.19	0.81	0.69	261.19**

Note: $\Delta\chi^2$ indicates the differences between the one-factor[a] model and the other models of the work-to-family facilitation (WFF) measure. The one-factor model contained all items measuring WFF, the three-factor model divided the measure into WFF affective, behaviour, and value, and the one-factor[a] model consisted of nine WFF items, with items WFF3 and WFF2 deleted. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The standardised factor loadings of the remaining items were above 0.45 (see Table 5.8). The R^2 values ranged from 0.38 to 0.72 at Time 1 and from 0.40 to 0.74 at Time 2.

Table 5.8

Standardised factor loadings for the one-factor model of WFF

Items	Time 1 (n = 740)	Time 2 (n = 210)
1. When things are going well at work, my outlook regarding my family responsibilities is improved	0.66	0.69
2. Being in a positive mood at work helps me to be in a positive mood at home	**0.70**	**0.70**
3. Being happy at work improves my spirit at home	**0.74**	**0.76**
4. Having a good day at work allows me to be optimistic with my family	0.74	0.76
5. Skills developed at work helps me in my family life	0.82	0.81
6. Successfully performing tasks at work helps me to more effectively accomplish family tasks	0.84	0.82
7. Behaviours required by my job lead to behaviours that assist me in my family life	0.82	0.83
8. Carrying out my family responsibilities is made easier by using behaviours performed at work	0.73	0.78
9. Values developed at work make me a better family member	0.77	0.83
10. I apply my workplace values in family situations	0.67	0.77
11. Values that I learn through my work experiences assist me in fulfilling my family responsibilities	0.68	0.72

** The bolded items were deleted from the scale

After deleting item WFF1 (R^2 = 0.38 at Time 1), no substantial improvement to the model was found and hence, this item was retained. The final one-factor WFF model with nine items was used for further analysis in this study.

5.2.3.2 Family-to-work facilitation (FWF)

A three-factor model of family-to-work facilitation (FWF) was tested and the model yielded a satisfactory fit to the data (see Table 5.9). However, an investigation of the factor correlations indicated that all latent factors were consistently highly correlated with one another (more than 0.70) at Times 1 and 2. Therefore, the factors were combined and a one-factor model of FWF was examined. Due to a very poor fit of the one-factor model to the data (see Table 5.9), the standardised factor loadings, squared multiple correlations (R^2), and modification indices were investigated. None of the standardised factor loadings was below 0.45 and none of the R^2 value was less than 0.40 at Times 1 and 2.

Table 5.9

Fit indices for the FWF measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi 2$
Time 1, n = 740								
1-factor[a]	433.39	27	16.05	0.04	0.14	0.92	0.87	-
3-factor	358.41	41	8.74	0.04	0.10	0.95	0.91	74.98
1-factor	1288.50	44	29.28	0.06	0.19	0.83	0.71	855.11**
Time 2, n = 210								
1-factor[a]	100.62	27	3.72	0.03	0.11	0.95	0.89	-
3-factor	153.72	41	3.74	0.03	0.11	0.94	0.88	53.02
1-factor	299.89	44	6.81	0.05	0.16	0.88	0.77	199.27**

Note: $\Delta\chi^2$ indicates the differences between the one-factor[a] model and the other models of the family-to-work facilitation (FWF) measure. The one-factor model contained all items measuring FWF, the three-factor model divided the measure into FWF affective, behaviour, and value, and the one-factor[a] model consisted of nine FWF items, with items FWF3 and FWF2 deleted. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The modification indices were examined and it was found that items FWF3 and FWF2 had the highest modification index and the largest residuals at Time 1 and Time 2. There are also similarities in the wordings of items FWF3 and FWF2 with item FWF4, indicating redundancy of these items (see Table 5.10). Therefore, both items (FWF3 and FWF2) were deleted sequentially, one after another. By deleting both items (FWF3 and FWF2), the fit indices for the one-factor FWF model improved, compared to the original one-factor FWF model at Times 1 and 2. The standardised factor loadings (see Table 5.10) and R^2 values (above 0.40) for the one-factor WFF model with nine items at Times 1 and 2 were in the recommended range. Therefore, the final one-factor FWF model with nine items was used for further analysis in this study

Table 5.10

Standardised factor loadings for the one-factor model of FWF

Items	**Time 1 (n = 740)**	**Time 2 (n = 210)**
1. When things are going well in my family life, my outlook regarding my job is improved		0.81
2. Being in a positive mood at home helps me to be in a positive mood at work		0.88
3. Being happy at home improves my spirits at work		**0.88**
4. Having a good day with my family allows me to be optimistic at work		**0.79**
5. Skills developed in my family life help me in my job		0.88
6. Successfully performing tasks in my family life helps me to more effectively accomplish tasks at work		0.88
7. Behaviours required in my family life lead to behaviours that assist me at work		0.88
8. Carrying out my work responsibilities is made easier by using behaviours performed as part of my family life		0.82
9. Values developed in my family make me a better employee		0.82
10. I apply my family values in work situations		0.85
11. Values that I learn through family experiences assist me in fulfilling my work responsibilities		0.88

** The bolded items were deleted from the scale

5.2.4 Psychological strain

Psychological strain in this study was measured using the General Health Questionnaire (GHQ-8), which consisted of eight items, representing social dysfunction and anxiety/depression (Kalliath et al., 2004). This measure was chosen due to stronger support for a two-factor model of GHQ in comparison to one-factor and three-factor models (Smith et al., 2010). According to Vanheule and Bogaerts (2005), the two-factor GHQ-8 model is parsimonious and the subscales are uni-dimensional.

Table 5.11 presents the fit indices for the one-factor and two-factor models of psychological strain at Times 1 and 2. As predicted, the two-factor model provided a better fit than the one-factor model in both phases. The chi-square differences test between the two-factor and one-factor models showed significant differences between the two models at both times (see Table 5.11) and therefore confirmed the better fit of the two-factor model at Times 1 and 2.

Table 5.11

Fit indices for the psychological strain measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi2$
Time 1, n = 740								
2-factor	60.33	19	3.17	.02	.05	.98	.98	-
1-factor	944.03	20	47.20	.19	.25	.58	.70	883.70**
Time 2, n = 210								
2-factor	52.93	19	2.78	.04	.09	.95	.94	-
1-factor	442.03	20	22.10	.24	.31	.42	.60	389.10**

Note: $\Delta\chi^2$ indicates the differences between the two-factor model and one-factor model of the psychological strain measure. The one-factor model comprised all items measuring psychological strain and the two-factor model differentiated between social dysfunction and anxiety/depression.
$\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The standardised factor loadings for all items at Time 1 and Time 2 were above 0.45 (see Table 5.12).

Table 5.12

Standardised factor loadings for the two-factor model of psychological strain

Items	Time 1 (n = 740)	Time 2 (n = 210)
Social dysfunction		
1. Felt capable of making decision about things	0.70	0.81
2. Been able to enjoy your normal day-to-day activities	0.72	0.80
3. Been able to face up to problems	0.79	0.75
4. Been feeling reasonably happy, all things considered	0.69	0.81
Anxiety/depression		
1. Felt you couldn't overcome your difficulties	0.58	0.62
2. Been feeling unhappy and depressed	0.73	0.76
3. Been losing confidence in yourself	0.88	0.79
4. Been thinking of yourself as a worthless person	0.76	0.74

The R^2 values for Time 1 ranged from 0.34 to 0.78 and Time 2 from 0.39 to 0.66. At both times, the R^2 values for item GHQ5 were below 0.40 (Time 1 = 0.34, Time 2 = 0.39). However, when the item (GHQ5) was deleted at Time 1 and Time 2, no substantial improvement to the model was found and therefore the item was retained. Hence, the final two-factor psychological strain model with eight items was used for further analysis in this study.

5.2.5 Turnover intention

A single factor model which combined all five items of turnover intention (Bozeman & Perrewe, 2001) was examined at Times 1 and 2 and the model did not fit the data well (see Table 5.13). Since this scale comprised both positively and negatively worded items, the recommendation by Spector and colleagues (1997) was taken into consideration. As noted by Spector and colleagues (1997), many organisational scales which include items in opposite directions might produce two-factor structures due to the way participants respond to the items. In other words, the artifactual two-factor structures can result from participants' pattern of responses, not by the underlying constructs.

Therefore, a two-factor model of turnover intention comprising the positively (intention to leave) and negatively (intention to stay) worded items was tested. In spite of significant improvement in the fit indices and chi-square difference of the two-factor model at both times, the χ^2/df value at Time 1 was not within the acceptable range (see Table 5.13). Thus, the standardised factor loadings and the R^2 values were investigated. Results showed that all items loaded above 0.45 (see Table 5.14) and the R^2 values were more than 0.40 at Time 1 and Time 2. The modification indices were then examined and it was found that item TI4 had the highest modification index and the largest residual. Hence item TI4 was removed and the fit indices of the two-factor model with four items were significantly better than the same model with five items (Table 5.13).

The decrease in the χ^2/df value at Time 1 indicated a substantial improvement in the model fit in comparison with the other two models. At Time 2, the two-factor models (with and without item deletion) fitted the data well. However, item TI4 was dropped at Time 2 so that the same two-factor models could be consistently used at Times 1 and 2 for further analysis.

Table 5.13

Fit indices for the turnover intention measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi2$
Time 1, n = 740								
2-factor[a]	3.40	1	3.40	0.01	0.05	0.99	0.99	-
2-factor	36.31	4	9.07	0.03	0.10	0.98	0.98	32.91**
1-factor	891.82	5	178.36	0.16	0.49	0.59	0.75	888.42**
Time 2, n = 210								
2-factor[a]	2.41	1	2.41	.01	0.08	0.99	0.99	-
2-factor	6.67	4	1.66	.01	0.05	0.99	0.98	4.26
1-factor	224.09	5	44.81	.16	0.54	0.68	0.77	217.42**

Note: $\Delta\chi^2$ indicates the differences between the two-factor[a] model, two-factor model, and one-factor model of the turnover intention measure. The one-factor model comprised all items measuring turnover intention, the two-factor model differentiated between intention to leave and intention to stay, and the two-factor[a] model included two factors with two items in each factor (intention to leave and intention to stay) with item TI4 removed. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The standardised factor loadings (see Table 5.14) and R^2 values (Time 1 = 0.68 to 0.87 and Time 2 = 0.49 to 1.06) for the remaining items were in the acceptable range. Therefore, the two-factor model of turnover intention with four items was used for further analysis in this study.

Table 5.14

Standardised factor loadings for the turnover intention measure

Items	Time 1 (n = 740)	Time 2 (n = 210)
Intention to leave		
1. I will probably look for a new job in the near future	0.86	0.92
2. At the present time, I am actively searching for another job in a different organisation	0.99	0.90
Intention to stay		
3. I do not intend to quit my job	0.70	0.93
4. It is unlikely that I will actively look for a different organisation to work for in the next year	**0.74**	**0.75**
5. I am not thinking about quitting my job at the present time	1.03	.82

*The bolded item was deleted from the scale.

5.2.6 Job satisfaction

The three-item job satisfaction measure (Cammann et al., 1979) was run as a single factor model at Times 1 and 2. According to Kline (2011), models with less than four indicators within a single latent variable are likely to be underidentified. Therefore, two parameter estimates of the error terms needed to be constrained to be equal (O'Brien, 1994). The CFA analysis was then performed for the job satisfaction scale by inserting equal parameter estimates of 1 for items JS1 and JS2. The fit indices yielded that the model was a reasonable fit to the data in both phases (see Table 5.15).

Table 5.15

Fit indices for the job satisfaction measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI
Time 1, n = 740							
1-factor	0.06	1	0.06	0.01	0.01	1.00	1.00
Time 2, n = 210							
1-factor	0.09	1	.09	0.01	0.00	1.00	1.00

The standardised factor loadings for all items at both times were above 0.45, except for item JS2 (0.38) at Time 2 (see Table 5.16). However, none of the items, either at Time 1 or Time 2, were deleted due to the good fit of the model to the data. All items were retained for further analysis in this study.

Table 5.16

Standardised factor loadings for the one-factor model of job satisfaction

Items	Time 1 (n = 740)	Time 2 (n = 210)
Job satisfaction		
1. All in all, I am satisfied with my job	0.71	0.85
2. In general, I don't like my job	0.61	0.38
3. In general, I like working here	0.74	0.83

5.2.7 Family satisfaction

The family satisfaction scale (Alfonso et al., 1996) was measured as a single factor model with all five items included. However, the model resulted in an unsatisfactory fit (see Table 5.17). Therefore the standardised factor loadings and R^2 values were investigated. All items loaded above 0.45 and the R^2 values of all items were more than 0.40. The modification indices were then investigated. The item with the highest modification index (FS5) was removed and followed by

another item, FS4. Deleting both items (FS5 and FS4) yielded significant improvement in the model fit at Times 1 and 2 (see Table 5.17).

Table 5.17

Fit indices for the family satisfaction measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi 2$
Time 1, n = 740								
1-factor[a]	0.39	1	0.39	0.01	0.01	1.00	1.00	-
1-factor	80.11	5	16.02	0.02	0.14	0.97	0.95	79.72**
Time 2, n = 210								
1-factor [a]	0.16	1	0.16	0.01	0.01	1.00	0.99	-
1-factor	12.09	5	2.41	0.02	0.08	0.98	0.97	11.93*

Note: $\Delta\chi^2$ indicates the differences between the one-factor model and the one-factor[a] model of family satisfaction measure. The one-factor model comprised all items measuring family satisfaction and the one-factor[a] model consisted three family satisfaction items, with items FS5 and FS4 deleted.
$\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The standardised factor loadings for the three remaining items were high, ranging from 0.79 to 0.86 at Time 1 and from 0.83 to 0.84 at Time 2 (Table 5.18). Therefore all three items were retained for further analysis.

Table 5.18

Standardised factor loadings for the one-factor model of family satisfaction

Items	Time 1 (n = 740)	Time 2 (n = 210)
Family satisfaction		
1. In most ways, my family life is close to my ideal	0.79	0.84
2. The conditions of my family life are excellent	0.85	0.83
3. I am satisfied with my family life	0.86	0.83
4. So far, I have gotten things I want from my family life	**0.81**	**0.77**
5. I am generally pleased with the quality of my family life	**0.82**	**0.81**

**The bolded items were deleted from the scale.

5.2.8 Life Satisfaction

The CFA was run on a single factor model of life satisfaction (Alfonso et al., 1996) which included all five items. The model resulted in an unsatisfactory fit, with a high value of χ^2/df at Time 1 and high values of RMSEA at Times 1 and 2 (Table 5.19). Therefore, the standardised factor loadings and R^2 values for all items were examined but none was below the recommended range in both phases. The modification indices were then examined. The item with the highest modification index (LS2) was removed and the fit statistics for both times yielded substantial improvement and the revised model has a good fit to the data (Table 5.19).

Table 5.19

Fit indices for the life satisfaction measure

Model	$\chi^{\square}$	df	χ^2 /df	SRMR	RMSEA	CFI	GFI	$\Delta\chi$2
Time 1, n = 740								
1-factor[a]	5.16	2	2.58	0.008	0.04	0.99	0.98	-
1-factor	74.79	5	14.95	0.02	0.13	0.97	0.96	69.63**
Time 2, n = 210								
1-factor [a]	4.47	2	2.23	0.01	0.07	0.99	0.98	-
1-factor	21.39	5	4.27	0.02	0.12	0.97	0.96	16.87**

Note: $\Delta\chi^2$ indicates the differences between the one-factor model and the one-factor[a] model of life satisfaction measure. The one-factor model comprised all items measuring life satisfaction and the one-factor[a] model consisted four life satisfaction items, with items LS2 deleted.
$\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

The standardised factor loadings for the remaining items ranged from 0.79 to 0.88 at Time 1 and from 0.82 to 0.86 at Time 2 (Table 5.20). The R^2 values ranged from 0.61 to 0.75 at Time 1 and from 0.62 to 0.75 at Time 2. Thus, four items of the life satisfaction measure were retained for further analysis in the present study.

Table 5.20

Standardised factor loadings for the one-factor model of life satisfaction

Items	Time 1 (n = 740)	Time 2 (n = 210)
Life satisfaction		
1. In most ways, my life is close to my ideal	0.80	0.82
2. The conditions of my life are excellent	**0.86**	**0.84**
3. I am satisfied with my life	0.88	0.86
4. So far, I have gotten things I want from my life	0.79	0.82
5. I am generally pleased with life I lead	0.82	0.86

**The bolded items were deleted from the scale.

5.2.9 Negative Affectivity

The initial fit indices for the one-factor negative affectivity measure with ten items (Watson et al., 1988) were not in the satisfactory range for Times 1 and 2 (see Table 5.21). As suggested by the literature (Crawford & Henry, 2004; Mehrabian, 1997), a two-factor model consisting of two subscales, which differentiated between *'NA fear'* and *'NA distress'*, was tested.

Table 5.21

Fit indices for the negative affect measure

Model	χ^2	df	χ^2/df	SRMR	RMSEA	CFI	GFI	$\Delta\chi2$
Time 1, n = 740								
2-factor[a]	140.35	19	7.38	0.04	0.09	0.94	0.95	-
2-factor	405.18	34	11.91	0.06	0.12	0.90	0.89	264.83**
1-factor	652.74	35	18.65	0.06	0.15	0.84	0.83	512.39**
Time 2, n = 210								
2-factor[a]	103.16	19	5.42	0.06	0.14	0.90	0.89	-
2-factor	247.44	34	7.27	0.07	0.17	0.84	0.80	144.28
1-factor	290.46	35	8.29	0.07	0.18	0.80	0.77	187.30

Note: $\Delta\chi^2$ indicates the differences between the one-factor, and two-factor, and two-factor[a] models of the negative affectivity measure. The one-factor model comprised all items measuring negative affectivity and the two-factor model distinguished between 'NA fear' and 'NA distress' subscales. The two-factor[a] model included eight items with items NA9 and NA8 deleted. $\Delta\chi^2$ = ** $p < 0.01$; *$p < 0.05$

However, the results of the two-factor model indicated a poor fit to the data at both times, even though the standardised factor loadings were high (see Table 5.22). Hence the R^2 values and modification indices were investigated. Based on the modification index, items NA9 and NA8 were sequentially removed. The deletion of those two items made significant improvements to the model fit at Times 1 and 2 (see Table 5.21). All fit indices were in the recommended range although the χ^2/df and RMSEA were slightly high at Times 1 and 2. The standardised factor loadings for the remaining items were in the recommended range, from 0.45 to 0.86 at Time 1 and from 0.57 to 0.87 at Time 2. Thus, the two-factor NA model with eight items was retained for further analysis.

Table 5.22

Standardised factor loadings for the two-factor model of NA

Items	Time 1 (n = 740)	Time 2 (n = 210)
Fear		
NA3. Guilty	0.61	0.67
NA4. Scared	0.71	0.77
NA7. Ashamed	0.63	0.65
NA8. Nervous	**0.79**	**0.81**
NA9. Jittery	**0.88**	**0.84**
NA10. Afraid	0.83	0.80
Distress		
NA1. Distress	0.80	0.83
NA2. Upset	0.86	0.87
NA5. Hostile	0.45	0.57
NA6. Irritable	0.64	0.61

** The bolded items were deleted from the scale.

5.3 Reliability and normality checks

Cronbach alpha coefficients were computed to investigate the internal reliability of each measure (see Table 5.23). Based on the CFA results, 21 measures were finalised for further analysis. The reliability coefficients for the

measures were within acceptable limits and ranged from 0.73 to 0.94 at Time 1 (except for two coping subscales; positive reappraisal and escape-avoidance) and from 0.71 to 0.95 at Time 2 (except for three coping subscales; planful problem-solving, positive reappraisal and escape-avoidance).

Table 5.23

Reliability coefficients for the measures under study

Measures	Time 1, n = 740			Time 2, n = 210		
	Reliability	Skewness	Kurtosis	Reliability	Skewness	Kurtosis
WFC time	0.87	0.53	-0.20	0.86	0.58	-0.32
WFC strain	0.80	0.27	-0.33	0.83	0.23	-0.43
WFC behaviour	0.79	0.47	0.37	0.79	0.48	0.16
FWC time	0.76	0.77	1.54	0.71	0.45	0.91
FWC strain	0.80	0.77	1.46	0.71	0.84	1.29
FWC behaviour	0.88	0.56	0.37	0.87	0.38	-0.18
Planful problem-solving	0.73	-0.48	0.20	0.62	0.03	-0.47
Support seeking	0.76	-0.81	0.27	0.80	-0.92	0.78
Escape-avoidance	0.68	-0.08	-0.17	0.64	0.08	-0.47
Positive reappraisal	0.66	-0.58	-0.02	0.53	-0.55	0.48
Work-to-family facilitation	0.92	-0.42	0.99	0.93	-0.57	0.28
Family-to-work facilitation	0.94	-0.50	1.37	0.95	-0.61	0.36
Social dysfunction	0.82	-0.22	0.07	0.87	0.30	0.71
Anxiety/Depression	0.83	1.26	2.99	0.82	1.13	1.70
Intention to leave	0.93	0.60	-0.46	0.91	0.84	0.02
Intention to stay	0.84	-0.57	-0.66	0.87	-0.87	-0.01
Job satisfaction	0.73	-0.18	-0.11	0.70	-0.46	0.65
Family satisfaction	0.89	-0.43	0.57	0.88	-0.32	-0.23
Life satisfaction	0.89	-0.45	0.73	0.90	-0.33	0.26
NA Fear	0.80	0.48	-0.06	0.81	0.93	1.14
NA Distress	0.78	0.45	-0.16	0.80	1.00	1.39

Note: Response scale for the WFC, FWC, coping, WFF, FWF, turnover intention, job satisfaction, family satisfaction, life satisfaction, and negative affectivity measures ranged from 1 to 5 and GHQ ranged from 1 to 6.

The low reliability of the coping subscales (escape-avoidance and positive reappraisal at Time 1 and planful problem-solving, escape-avoidance, and positive reappraisal at Time 2) might be explained by the different behaviours listed within those coping scales (Dewe, O'Driscoll, & Cooper, 2010). For example, item SS1 "Openly discussed conflicts in delegating household chores and child care with spouse" and SS4 "Tried to manage household chores and child care more efficiently" belong to the same scale even though they clearly reflect different coping behaviours. For example, participants who tried to be efficient in managing household and child care (item SS4) might not be willing to discuss their home conflict with their spouse openly (SS1) due to personality traits or cultural norms. Therefore, they might respond differently to these items although the items belong to the same subscale. Other researchers (Dewe et al., 2010) have also noted that coping scales have frequently displayed low reliability coefficients in previous research.

All measures were also tested for normality via kurtosis and skewness statistics. The results of normality tests presented in Table 5.23 indicated satisfactory levels of skewness (skewness index less than 3.0) and kurtosis (kurtosis index less than 8.0) for all variables at both times, as suggested by Kline (2011).

5.4. Chapter summary

This chapter describes the psychometric analyses of the measures used in the present study. The CFA results indicated that the work-family conflict scale formed two directions (work-to-family conflict and family-to-work conflict) with three types of conflict in each dimension (WFC time, strain, and behaviour and

FWC time, strain, and behaviour). The coping scale had four dimensions (planful problem-solving, support seeking, positive reappraisal, and escape-avoidance) and work-family facilitation was divided into two; work-to-family facilitation (WFF) and family-to-work facilitation (FWF). The CFA results also indicated that the one-factor model of job, family, and life satisfaction fit the data well. The General Health Questionnaires (GHQ), turnover intention, and negative affectivity had two dimensions each; with social dysfunction and anxiety/depression dimensions for the GHQ scale, intention to leave and intention to stay dimensions for the turnover intention scale, and 'NA fear' and 'NA distress' dimensions for the negative affectivity scale. These 21 measures were used for further analysis to test the theoretical models in this study and the results are presented in the following chapters; Chapter 6 (Time 1 results), Chapter 7 (Time 2 results), and Chapter 8 (longitudinal results).

CHAPTER 6

TIME 1 RESULTS

Chapter Overview

The objective of this chapter is to examine the cross-sectional relationships of predictors (work-family conflict) and criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 1. The main and moderating effects of coping and work-family facilitation were tested. The mediating roles of work-family facilitation in the relationships between work-family conflict and the criterion variables were also examined. This chapter presents the results of cross-sectional analyses for the data collected at Time 1, and is divided into three main sections: (a) descriptive statistics and correlations, (b) multivariate analyses of main and moderation effects using hierarchical regression, and (c) mediation analyses using structural equation modelling.

6.1 Descriptive statistics and correlations at Time 1

As previously mentioned in Chapter 5, the work-family conflict measure consisted of WFC and FWC time, strain, and behaviour, whereas the coping scale was divided into four: planful problem solving, support-seeking, escape-avoidance, and positive reappraisal. The work-family facilitation measure comprised two dimensions, work-to-family facilitation (WFF) and family-to-work facilitation (FWF); the psychological distress scale consisted of two subscales, social dysfunction and anxiety/depression; and the turnover intentions measure

was divided into two: intention to leave (positively worded turnover intentions) and intentions to stay (negatively worded turnover intentions). The job satisfaction, family satisfaction, and life satisfaction measures were one-factor scales, while negative affectivity was divided into two factors: NA (distress) and NA (fear).

Table 6.1 displays means, standard deviations, and correlations of demographic variables with the predictors and criterion variables at Time 1. The relationships between demographic variables (age, organisational tenure, and job tenure) with the predictors and criterion variables were examined to determine the control variables for further analysis.

At Time 1, age was significantly positively correlated with planful problem-solving, support-seeking, positive reappraisal, job satisfaction, and life satisfaction. Age was also significantly negatively related to WFC behaviour, social dysfunction, anxiety/depression, and intention to leave. Organisational tenure was significantly positively related to planful problem-solving, support-seeking, positive reappraisal, job satisfaction, family satisfaction, and life satisfaction at Time 1. In addition, organisational tenure was significantly negatively correlated with WFC behaviour, FWC strain, social dysfunction, anxiety/depression, and intention to leave. Job tenure was significantly positively correlated with planful problem-solving, support-seeking, positive reappraisal, WFF, FWF, job satisfaction, and life satisfaction at Time 1. Job tenure was also significantly negatively related to WFC behaviour, social dysfunction, anxiety/depression, and intention to leave. As age, organisational tenure, and job tenure correlated with one or more criterion variables at Time 1, consideration was given to controlling them in further regression analyses.

Table 6.1

Means, standard deviations, and correlations of demographic variables with predictors and criterion variables at Time 1

Variables	Time 1 (n = 740)						
	Mean	SD	1	2	3	4	5
1. Age (years)	33.86	8.68	-	-	-	-	-
2. Org. tenure (months)	99.33	98.68	0.83**	-	-	-	-
3. Job tenure (months)	82.06	84.22	0.73**	0.82**	-	-	-
4. NA distress	8.48	2.79	-0.26**	-0.22**	-0.22**	-	-
5. NA fear	7.99	2.70	-0.23**	-0.19**	-0.16**	0.68**	-
WFC time	7.53	2.57	-0.02	-0.05	-0.05	0.17**	0.09
WFC strain	8.21	2.55	-0.03	-0.09	-0.05	0.32**	0.20**
WFC behaviour	7.35	2.20	-0.09	-0.13**	-0.10**	0.26**	0.21**
FWC time	6.71	1.95	0.02	-0.02	-0.02	0.17**	0.12**
FWC strain	6.80	2.05	-0.08	-0.13**	-0.07	0.28**	0.26**
FWC behaviour	7.30	2.28	-0.06	-0.09	-0.08	0.23**	0.19**
Planful problem-solving	12.23	1.88	0.18**	0.15**	0.12**	-0.17**	-0.21**
Support-seeking	10.83	3.02	0.22**	0.17**	0.16**	-0.17**	-0.19**
Escape-avoidance	10.14	2.38	0.08	0.06	0.07	-0.07	-0.05
Positive reappraisal	12.11	2.11	0.12**	0.14**	0.10**	-0.21**	-0.17**
WFF	34.89	5.86	0.02	0.01	0.03	-0.16**	-0.11**
FWF	35.21	6.04	0.02	0.02	0.03	-0.16**	-0.11**
Social dysfunction	11.72	3.23	-0.14**	-0.11**	-0.11**	0.26**	0.28**
Anxiety/depression	8.56	2.86	-0.25**	-0.22**	-0.17**	0.48**	0.46**
Intentions to leave	4.40	2.11	-0.24**	-0.27**	-0.28**	0.26**	0.18**
Intentions to stay	7.72	2.21	0.12**	0.12**	0.14**	-0.17**	-0.15**
Job satisfaction	11.79	1.98	0.17**	0.18**	0.16**	-0.34**	-0.22**
Family satisfaction	11.77	2.04	0.07	0.13**	0.09	-0.30**	-0.23**
Life satisfaction	15.23	2.64	0.15**	0.16**	0.12**	-0.32**	-0.24**

Note: ** $p < 0.01$; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

NA (distress), a negative affectivity subscale was significantly positively correlated with WFC time, strain, and behaviour, FWC time, strain, and behaviour, social dysfunction, anxiety/depression, and intention to leave. In addition, NA (distress) was significantly negatively related to planful problem-

solving, support-seeking, positive reappraisal, WFF, FWF, job satisfaction, family satisfaction, and life satisfaction at Time 1. NA (fear) was significantly positively correlated with WFC strain and behaviour, FWC time, strain and behaviour, social dysfunction, anxiety/depression, and intention to leave at Time 1. Additionally, NA (fear) was significantly negatively related to planful problem-solving, support-seeking, and positive reappraisal, WFF, FWF, intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 1. Hence NA (distress) and NA (fear) were included as control variables for social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction in the relevant regression analyses.

Ten industries (construction, city hall, education/training, finance, manufacturing, service, automobile, jewellery, legal, and optometry) participated in this study at Time 1. ANOVA was conducted to examine differences between those industries on each key variable under study. The Hochberg's GT2 and Games-Howell post-hoc procedures were chosen due to differences in sample size between different industries and uncertainty about the equivalence in the population variance (Field, 2009). The post-hoc analysis indicated significant differences between five industries (construction, city hall, education/training, manufacturing, and finance) in relation to all key variables. However, there was no significant difference between another five industries (service, automobile, jewellery, legal, and optometry) on the criterion variables. Therefore, those five industries (service, automobile, jewellery, legal, and optometry) were categorised as 'other' industry. ANOVA was conducted again to test the differences of these six industries (construction, city hall, education/training, manufacturing, finance, and other industry) on the criterion variables. The final ANOVA results with six

industries demonstrated that the industries (construction, city hall, education/training, manufacturing, finance, and other industry) were significantly different in relation to most of the key variables and therefore, industry was used for further analyses.

The results in Table 6.2 demonstrated significant differences between industry and WFC (time and strain) and FWC (time), coping (planful problem-solving), work-to-family facilitation (WFF), family-to-work facilitation (FWF), intention to leave, intention to stay, job satisfaction, and life satisfaction at Time 1.

Table 6.2

ANOVA of industry types on the key variables under study at Time 1

Variables	*F*
Work-to-family conflict time	8.56***
Work-to-family conflict strain	4.26***
Work-to-family conflict behaviour	2.61
Family-to-work conflict time	6.71***
Family-to-work conflict strain	2.75
Family-to-work conflict behaviour	1.73
Planful problem-solving	5.57***
Support seeking	2.86
Positive reappraisal	2.19
Escape-avoidance	1.62
Work-to-family facilitation	7.56***
Family-to-work facilitation	8.33***
Social dysfunction	1.15
Anxiety/depression	0.90
Intentions to leave	15.32***
Intentions to stay	11.50***
Job satisfaction	10.96***
Family satisfaction	1.97
Life satisfaction	4.04***

Note: ** $p < 0.01$, ***$p < 0.001$; $n = 740$

The correlations of all variables at Time 1 are presented in Table 6.3. WFC and FWC (time, strain, and behaviour) were significantly negatively correlated with intention to stay, job satisfaction, family satisfaction, and life satisfaction, but significantly positively correlated with social dysfunction, anxiety/depression, and intention to leave at Time 1. All types of coping (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisal) were significantly negatively related to social dysfunction and intention to leave, but significantly positively related to life satisfaction at Time 1. Planful problem-solving, support-seeking, and positive reappraisals were significantly negatively related to anxiety/depression but significantly positively related to job and family satisfaction at Time 1.

Planful problem-solving and positive reappraisal were also significantly positively related to intention to stay at Time 1. Work-to-family facilitation (WFF) and family-to-work facilitation (FWF) were significantly negatively correlated with social dysfunction, but significantly positively related to intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 1. Only FWF was positively related to anxiety/depression and intentions to leave at Time 1.

Table 6.3 also indicates high correlations between WFF and FWF (r = 0.82) and between WFC behaviour and FWC behaviour (r = 0.73) at Time 1. Therefore, collinearity diagnostics were conducted by using regression analyses, with separate regression analysis for each criterion variable. The results for all regression models indicated that there was no collinearity in the data at Time 1, based on the average variance inflation factor (VIF) that was very close to 1 and the tolerance statistics which were above 0.2 (Field, 2009).

Table 6.3

Correlations of predictors and criterion variables at Time 1

Variables	WFC time	WFC strain	WFC behaviour	FWC time	FWC strain	FWC behaviour	PPS	SS
WFC time	-							
WFC strain	0.54**	-						
WFC behaviour	0.33**	0.46**	-					
FWC time	0.52**	0.56**	0.45**	-				
FWC strain	0.30**	0.53**	0.45**	0.52**	-			
FWC behaviour	0.24**	0.39**	0.74**	0.38**	0.39**	-		
PPS	-0.04	-0.12**	-0.20**	-0.15**	-0.21**	-0.17**	-	
Support-seeking	-0.04	-0.11**	-0.22**	-0.07	-0.16**	-0.20**	0.48**	-
Escape-avoidance	0.08	0.05	0.02	0.05	0.02	-0.04	0.18**	0.17**
Positive reappraisal	-0.02	-0.11**	-0.15**	-0.09	-0.17**	-0.17**	0.45**	0.33**
WFF	-0.05	-0.10**	-0.21**	-0.02	-0.06	-0.25**	0.23**	0.18**
FWF	-0.06	-0.13**	-0.23**	-0.07	-0.11**	-0.21**	0.25**	0.15**
Social Dysfunction	0.14**	0.28**	0.21**	0.20**	0.29**	0.23**	-0.38**	-0.30**
Anxiety/Depression	0.12**	0.25**	0.21**	0.21**	0.32**	0.20**	-0.28**	-0.16**
Intentions to leave	0.18**	0.29**	0.19**	0.19**	0.21**	0.19**	-0.14**	-0.13**
Intentions to stay	-0.16**	-0.19**	-0.14**	-0.13**	-0.12**	-0.14**	0.11**	0.08
Job Satisfaction	-0.26**	-0.33**	-0.24**	-0.22**	-0.25**	-0.23**	0.13**	0.15**
Family Satisfaction	-0.12**	-0.21**	-0.26**	-0.17**	-0.27**	-0.16**	0.24**	0.22**
Life Satisfaction	-0.15**	-0.25**	-0.24**	-0.15**	-0.26**	-0.20**	0.24**	0.26**

Table 6.3

(continued)

Variables	EA	PR	WFF	FWF	SD	AD	ITL	ITS	JS	FS	LS
WFC time											
WFC strain											
WFC behaviour											
FWC time											
FWC strain											
FWC behaviour											
PPS											
Support-seeking											
Escape-avoidance	-										
Positive reappraisal	0.47**	-									
WFF	0.17**	0.27**	-								
FWF	0.13**	0.30**	0.82**	-							
Social Dysfunction	-0.23**	-0.35**	-0.25**	-0.25**	-						
Anxiety/Depression	0.01	-0.18**	-0.08	-0.11**	0.28**	-					
Intentions to leave	-0.10**	-0.14**	-0.09	-0.11**	0.24**	0.29**	-				
Intentions to stay	0.09	0.13**	0.19**	0.17**	-0.23**	-0.22**	-0.67**	-			
Job Satisfaction	0.09	0.18**	0.25**	0.20**	-0.36**	-0.31**	-0.51**	0.45**	-		
Family Satisfaction	0.07	0.22**	0.23**	0.19**	-0.32**	-0.26**	-0.19**	0.17**	0.38**	-	
Life Satisfaction	0.13**	0.26**	0.26**	0.23**	-0.42**	-0.29**	-0.27**	0.23**	0.50**	0.68**	-

Note: N = 740, ** $p < 0.01$; WFC = work-to-family conflict, FWC = family-to-work conflict, PPS = planful problem-solving, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

Besides, work-to-family and family-to-work (conflict and facilitation) were conceptually two different directions and this study aims at assessing the effects of the two different directions separately. In addition, centered scores of all predictors and moderators were used in regression analyses to avoid multicollinearity.

6.2 Multivariate analyses of direct and moderating effects at Time 1

Hierarchical moderated regression analysis was used to estimate the direct and moderating effects at Time 1. The use of hierarchical regression enables the researcher to control the demographic variables and negative affectivity (NA) that are consistently and significantly correlated with the predictors and criterion variables. All predictors and moderator variables were centered (the mean of a variable was deducted from that variable's total score) and were used in further regression analyses to reduce multicollinearity, which might produce unstable coefficients and mislead the interpretation.

In the hierarchical regression analysis, all variables were entered in four steps. In Step 1, demographic variables (age, industry, organisational tenure, and job tenure) were entered, followed by negative affectivity (NA fear and NA distress) in Step 2. In Step 3, work-family conflict, coping, and work-family facilitation were entered, followed by the interactions of interest in Step 4 (refer to page 116 to 117 for details).

6.2.1 Direct effects at Time 1

This section presents the direct effects of all predictors on the criterion variables at Time 1. The moderating effects of coping and work-family facilitation will be described in the next section (Section 6.2.2).

Social dysfunction as the criterion variable at Time 1

Table 6.4 presents the results of the hierarchical regression of social dysfunction and anxiety/depression on work-family conflict, coping, and work-family facilitation at Time 1. In Step 1, demographic variables explained 3% of the variance in social dysfunction. In Step 2, negative affectivity (NA) accounted for 9% of the variance in social dysfunction, in which NA (fear) (β = 0.22) and NA (distress) (β = 0.13) were significantly related to social dysfunction. Specifically, high NA (fear) and NA (distress) were related to high social dysfunction.

In Step 3, work-family conflict, coping, and work-family facilitation explained 22% of the variance in social dysfunction. Six out of 12 predictors (50%) were significantly related to social dysfunction at Time 1. WFC strain (β = 0.16), FWC strain (β = 0.11), planful problem-solving (β = -0.17), support-seeking (β = -0.11), and escape-avoidance (β = -0.11) were significantly related to social dysfunction. As predicted, high WFC strain and FWC strain were related to high social dysfunction, whereas high planful problem-solving, support-seeking, and escape-avoidance were related to low social dysfunction. These results supported Hypotheses 1a(ii), 1b(ii), 7a, and 7b for psychological strain (social dysfunction) at Time 1.

Table 6.4

Hierarchical regression of social dysfunction and anxiety/depression on work-family conflict, coping, and work-family facilitation at Time 1

Variables (n = 740)	Social dysfunction ΔR^2	β	Anxiety/ depression ΔR^2	β
Step 1	0.03**		0.06***	
Age		-0.16*		-0.21**
Organisational tenure		0.03		-0.12
Job tenure		0.00		0.10
Construction		0.01		0.05
Education		-0.01		-0.01
Manufacturing		-0.01		0.01
Finance		-0.02		0.04
Other		-0.00		0.04
Step 2	0.9***		0.25***	
NA (fear)		0.22***		0.24***
NA (distress)		0.13**		0.32***
Step 3	0.21***		0.07***	
WFC time		0.03		-0.02
WFC strain		0.16***		0.02
WFC behaviour		-0.07		-0.05
FWC time		0.03		0.08
FWC strain		0.11**		0.12**
FWC behaviour		0.06		0.06
Planful problem-solving (PPS)		-0.17***		-0.17***
Support-seeking (SS)		-0.08*		0.04
Escape-avoidance (EA)		-0.11**		0.09**
Positive reappraisal (PR)		-0.11**		-0.04
WFF		-0.07		0.05
FWF		-0.03		-0.01
Step 4	0.06*		0.04	
WFC time X PPS		0.06		0.04
WFC strain X PPS		0.04		0.03
WFC behaviour X PPS		0.02		0.05
FWC time X PPS		-0.14*		-0.14
FWC strain X PPS		0.05		0.04
FWC behaviour X PPS		0.02		0.02
WFC time X SS		0.05		-0.04
WFC strain X SS		-0.01		-0.04
WFC behaviour X SS		-0.04		-0.01
FWC time X SS		0.01		0.10
FWC strain X SS		-0.06		0.01
FWC behaviour X SS		0.13*		-0.06
WFC time X EA		-0.01		-0.03
WFC strain X EA		0.03		0.05
WFC behaviour X EA		0.04		0.05
FWC time X EA		-0.16**		-0.02
FWC strain X EA		0.04		-0.05
FWC behaviour X EA		-0.05		-0.01
WFC time X PR		0.08		0.04
WFC strain X PR		-0.02		-0.03
WFC behaviour X PR		-0.03		0.01
FWC time X PR		0.12*		0.03
FWC strain X PR		-0.02		-0.06
FWC behaviour X PR		-0.04		0.03
WFC time X WFF		-0.20**		-0.09

Table 6.4

(continued)

Variables (n = 740)	Social dysfunction ΔR^2	Social dysfunction β	Anxiety/ depression ΔR^2	Anxiety/ depression β
Step 4				
WFC strain X WFF		0.07		0.04
WFC behaviour X WFF		-0.14		-0.04
FWC time X WFF		0.07		0.14
FWC strain X WFF		-0.09		-0.10
FWC behaviour X WFF		0.04		-0.09
WFC time X FWF		0.16*		0.11
WFC strain X FWF		-0.11		-0.07
WFC behaviour X FWF		0.17		-0.03
FWC time X FWF		-0.05		-0.20
FWC strain X FWF		0.07		0.06
FWC behaviour X FWF		-0.02		0.13

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

Anxiety/depression as the criterion variable at Time 1

The demographic variables entered in Step 1 explained 6% of the variance in anxiety/depression (see Table 6.4). In Step 2, negative affectivity (NA) accounted for 25% of the total variance in anxiety/depression. NA (fear) (β = 0.24) and NA (distress) (β = 0.32) were significantly related to anxiety/depression, indicating that high NA (fear) and NA (distress) were related to high anxiety/depression.

In Step 3, work-family conflict, coping, and work-family facilitation explained 7% of the variance in anxiety/depression. Three out of 12 predictors (25%) were significantly related to anxiety/depression at Time 1. FWC strain (β = 0.12), planful problem-solving (β = -0.17), and escape-avoidance (β = 0.09) were significantly related to anxiety/depression. As predicted, high FWC strain was significantly related to high anxiety/depression, while low planful problem-solving was significantly related to high anxiety/depression. These results

supported Hypotheses 1b(ii) and 7a for psychological strain (anxiety/depression) at Time 1. However, high escape-avoidance was significantly positively related to high anxiety/depression, which was in the opposite direction than that hypothesised. This finding did not support Hypothesis 7b for psychological strain (anxiety/depression) at Time 1.

Intention to leave as the criterion variable at Time 1

In Step 1, the demographic variables accounted for 17% of the variance in intention to leave at Time 1 (see Table 6.5). In Step 2, negative affectivity (NA) explained 4% of the total variance in anxiety/depression. NA (distress) (β = 0.18) was significantly related to intention to leave, in which high NA (distress) was related to high intention to leave.

In Step 3, the predictor variables accounted for 6% of the variance in intention to leave. Only two out of 12 predictors (16.67%) were significantly related to intention to leave at Time 1. Of all predictor variables, only WFC strain (β = 0.19) and escape-avoidance (β = -0.09) were significantly related to intention to leave. As predicted, high WFC strain was related to high intention to leave, while high escape-avoidance was related to low intention to leave. These results supported Hypotheses 3a(ii) and 9b for turnover intention (intention to leave) at Time 1.

Table 6.5

Hierarchical regression of intention to leave, intention to stay, and job satisfaction on work-family conflict, coping, and work-family facilitation at Time 1

Variables	Intention to leave		Intention to stay		Job satisfaction	
(n = 740)	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	0.17***		0.09***		0.09***	
Age		-0.05		0.06		0.02
Organisational tenure		-0.17*		0.03		0.19*
Job tenure		-0.07		0.05		-0.05
Construction		0.19***		-0.18***		-0.16***
Education		-0.11*		-0.01		0.04
Manufacturing		0.13***		-0.13***		-0.09*
Finance		0.12**		-0.16***		-0.15***
Other		0.07		-0.13***		-0.13**
Step 2	0.04***		0.03***		0.09***	
NA (fear)		0.04		-0.10*		0.00
NA (distress)		0.18***		-0.08		-0.32***
Step 3	0.06***		0.05***		0.10***	
WFC time		0.06		-0.10*		-0.13**
WFC strain		0.19***		-0.12*		-0.15**
WFC behaviour		-0.05		0.04		0.02
FWC time		-0.02		0.02		-0.01
FWC strain		0.04		0.01		-0.05
FWC behaviour		0.06		-0.03		-0.04
Planful problem-solving (PPS)		-0.03		0.00		-0.02
Support-seeking (SS)		-0.00		-0.02		0.02
Escape-avoidance (EA)		-0.09*		0.06		0.05
Positive reappraisal (PR)		-0.02		0.05		0.04
WFF		0.04		0.10		0.22***
FWF		-0.01		0.00		-0.11
Step 4	0.04		0.05		0.04	
WFC time X PPS		-0.07		0.05		0.01
WFC strain X PPS		0.08		-0.19		-0.11
WFC behaviour X PPS		0.14		-0.06		0.01
FWC time X PPS		-0.05		0.12		0.05
FWC strain X PPS		-0.03		-0.00		-0.05
FWC behaviour X PPS		-0.14		0.10		0.04
WFC time X SS		-0.03		0.00		-0.07
WFC strain X SS		0.08		0.18		0.03
WFC behaviour X SS		-0.05		0.02		0.04
FWC time X SS		0.06		-0.12		0.08
FWC strain X SS		-0.01		-0.01		-0.01
FWC behaviour X SS		0.10		-0.08		-0.04
WFC time X EA		0.01		-0.06		-0.07
WFC strain X EA		-0.01		0.01		0.00
WFC behaviour X EA		0.04		0.07		0.05
FWC time X EA		0.01		0.04		0.04
FWC strain X EA		0.03		-0.04		-0.02
FWC behaviour X EA		-0.08		-0.01		-0.00
WFC time X PR		0.08		-0.03		0.01
WFC strain X PR		-0.00		0.01		0.10

Table 6.5

(continued)

Variables (n = 740)	Intention to leave ΔR^2	β	Intention to stay ΔR^2	(n = 740)	Job satisfaction ΔR^2	β
Step 4						
WFC behaviour X PR		-0.03		0.01		-0.01
FWC time X PR		-0.15		0.10		-0.05
FWC strain X PR		-0.02		0.01		-0.02
FWC behaviour X PR		0.08		-0.07		0.03
WFC time X WFF		0.04		-0.04		0.13
WFC strain X WFF		-0.11		0.14		0.11
WFC behaviour X WFF		0.03		-0.02		0.04
FWC time X WFF		0.04		0.11		-0.02
FWC strain X WFF		-0.01		-0.06		-0.07
FWC behaviour X WFF		-0.05		-0.02		0.01
WFC time X FWF		-0.05		0.07		-0.13
WFC strain X FWF		0.11		-0.16		-0.11
WFC behaviour X FWF		-0.12		0.05		-0.01
FWC time X FWF		-0.01		-0.16		-0.02
FWC strain X FWF		0.05		0.15		0.10
FWC behaviour X FWF		0.12		-0.03		-0.07

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation

Intention to stay as the criterion variable at Time 1

In Step 1, the demographic variables explained 9% of the variance in intention to stay at Time 1 (see Table 6.5). In Step 2, negative affectivity (NA) accounted for 3% of the variance in intentions to stay, in which NA (fear) was significantly negatively related to intention to stay (β = -0.10). In Step 3, the predictor variables explained 5% of the variance in intention to stay. Two out of 12 predictors (16.67%) were significantly related to intention to stay at Time 1. WFC time (β = -0.10) and strain (β = -0.12) were significantly negatively related to intention to stay at Time 1. The results supported Hypotheses 3a(i) and 3a(ii) for turnover intention (intention to stay) at Time 1.

Job satisfaction as the criterion variable at Time 1

In Step 1, the demographic variables explained 9% of the variance in job satisfaction at Time 1 (see Table 6.5). In Step 2, negative affectivity (NA) accounted for 9% of the variance in job satisfaction, in which high NA (distress) (β = -0.32) was related to low job satisfaction. In Step 3, the predictor variables explained 10% of the variance in job satisfaction. Three out of 12 predictors (25%) were significantly related to job satisfaction at Time 1. Of all predictor variables, WFC time (β = -0.13), WFC strain (β = -0.15), and WFF (β = 0.22) were significantly related to job satisfaction. As predicted, high WFC time and WFC strain were related to low job satisfaction, whereas high WFF was related to high job satisfaction. These results supported Hypotheses 3c(i), 3c(ii) and 25c for job satisfaction at Time 1.

Family satisfaction as the criterion variable at Time 1

In Step 1, the demographic variables explained 3% of the variance in family satisfaction at Time 1 (see Table 6.6). In Step 2, negative affectivity accounted for 8% of the variance in family satisfaction. Specifically, NA (distress) (β = -0.25) was significantly related to family satisfaction, indicating that high NA (distress) was related to low family satisfaction. In Step 3, the predictor variables explained 11% of the variance in family satisfaction at Time 1 (see Table 6.6). Five out of 12 predictors (41.67%) were significantly related to family satisfaction at Time 1. Of all predictor variables, WFC behaviour (β = -0.16), FWC strain (β = -0.15), FWC behaviour (β = 0.12), support-seeking (β = 0.08), and WFF (β = 0.24) were significantly related to family satisfaction.

Table 6.6

Hierarchical regression of family and life satisfaction on work-family conflict, coping, and work-family facilitation at Time 1

Variables (n = 740)	Family satisfaction ΔR^2	Family satisfaction β	Life satisfaction ΔR^2	Life satisfaction B
Step 1	0.03**		0.05***	
Age		-0.07		0.09
Organisational tenure		0.24**		0.15
Job tenure		-0.09		-0.09
Construction		-0.06		-0.15***
Education		0.02		-0.02
Manufacturing		-0.08		-0.08
Finance		-0.02		-0.05
Other		-0.07		-0.08
Step 2	0.08***		0.09***	
NA (fear)		-0.06		-0.05
NA (distress)		-0.25***		-0.27***
Step 3	0.11***		0.12***	
WFC time		-0.01		-0.06
WFC strain		-0.02		-0.08
WFC behaviour		-0.16**		-0.05
FWC time		-0.00		0.04
FWC strain		-0.15***		-0.13**
FWC behaviour		0.12*		0.02
Planful problem-solving (PPS)		0.07		0.04
Support-seeking (SS)		0.08*		0.11**
Escape-avoidance (EA)		-0.01		0.04
Positive reappraisal (PR)		0.04		0.06
WFF		0.24***		0.18**
FWF		-0.10		-0.02
Step 4	0.06*		0.05	
WFC time X PPS		0.05		0.02
WFC strain X PPS		-0.19***		-0.11
WFC behaviour X PPS		0.22***		0.14
FWC time X PPS		-0.03		0.08
FWC strain X PPS		0.04		-0.05
FWC behaviour X PPS		-0.09		-0.06
WFC time X SS		-0.03		-0.03
WFC strain X SS		0.05		-0.00
WFC behaviour X SS		0.03		0.01
FWC time X SS		0.06		0.06
FWC strain X SS		-0.07		-0.01
FWC behaviour X SS		-0.07		-0.04
WFC time X EA		0.00		0.01
WFC strain X EA		-0.01		0.05
WFC behaviour X EA		0.03		0.02
FWC time X EA		0.03		0.11
FWC strain X EA		-0.01		0.02
FWC behaviour X EA		-0.02		-0.05
WFC time X PR		-0.07		0.00
WFC strain X PR		0.03		0.01
WFC behaviour X PR		-0.07		-0.07
FWC time X PR		-0.00		-0.14
FWC strain X PR		0.01		0.07

Table 6.6

(continued)

Variables (n = 740)	Family satisfaction ΔR^2	Family satisfaction β	Life satisfaction ΔR^2	Life satisfaction B
Step 4				
FWC behaviour X PR		0.09		0.12
WFC time X WFF		0.15		0.20
WFC strain X WFF		-0.14		-0.20
WFC behaviour X WFF		0.11		0.06
FWC time X WFF		-0.01		-0.05
FWC strain X WFF		0.15		0.04
FWC behaviour X WFF		0.03		0.03
WFC time X FWF		-0.10		-0.19
WFC strain X FWF		0.17		0.21
WFC behaviour X FWF		-0.20		-0.04
FWC time X FWF		-0.01		0.02
FWC strain X FWF		-0.16		-0.04
FWC behaviour X FWF		-0.02		-0.14

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

Individuals who experienced high WFC behaviour and FWC strain reported low family satisfaction while those who experienced high support-seeking and WFF reported high family satisfaction. These results supported Hypotheses 6a(iii), 6b(ii), 9c, and 27a for family satisfaction at Time 1. However, high FWC behaviour was related to high family satisfaction at Time 1, and the finding was in the opposite direction than that hypothesised. This result did not support Hypothesis 5b(iii) for family satisfaction at Time 1.

Life satisfaction as the criterion variable at Time 1

In Step 1, the demographic variables explained 5% of the variance in life satisfaction at Time 1. In Step 2, negative affectivity (NA) accounted for 9% of the variance in life satisfaction. Specifically, NA (distress) (β = -0.27) was significantly negatively related to life satisfaction. In Step 3, the predictor variables explained 12% of the variance in life satisfaction. Three out of 12

predictors (25%) were significantly related to life satisfaction at Time 1. Among all predictors, FWC strain (β = -0.13), support-seeking (β = 0.11), and WFF (β = 0.18) were significantly related to life satisfaction. Individuals who experienced high FWC strain reported low life satisfaction, whereas those who experienced high support seeking and WFF reported high life satisfaction. These results supported Hypotheses 5d(ii), 11c, and 27c for life satisfaction at Time 1.

6.2.2 Moderating effects at Time 1

The moderating effects of coping and work-family facilitation at Time 1 were tested in the present study. Overall, very few moderation effects were found in the present study. Specifically, six out of 36 moderating effects (16.67%) of coping and work-family facilitation on the relationships between work-family conflict and social dysfunction at Time 1 were significant. In addition, two out of 36 moderating effects (5.56%) of coping and work-family facilitation on the relationships between work-family conflict and family satisfaction at Time 1 were significant. As for the other criterion variables (anxiety/depression, intention to leave, intention to stay, job satisfaction, and life satisfaction), no significant moderating effects was found at Time 1. The graphical interactions for significant moderating effects are described in the following sections.

Social dysfunction as the criterion variable at Time 1

In Step 4 (Table 6.4), the interactions between predictors and moderators explained 6% of the variance in social dysfunction at Time 1. The interactions between FWC time and planful problem-solving (β = -0.16), FWC time and positive reappraisal (β = 0.12), WFC time and WFF (β = -0.20), and WFC time

and FWF (β = 0.16) on social dysfunction were statistically significant. The interactions are plotted in Figures 6.1 to 6.6 by using the simple effects equations (Aiken & West, 1991) with minimum and maximum mean values of the moderators. Simple slopes tests were then conducted to examine the interaction effects between continuous predictors and moderators (Aiken & West, 1991).

Although it was not hypothesised, the simple slopes test in Figure 6.1 illustrates a significant positive relationship between FWC time and social dysfunction among those who used low planful problem-solving (a type of problem-focused coping), $t(738) = 2.78$, $p<0.01$ (only high problem-focused coping was predicted to moderate the relationship between FWC time and social dysfunction). However, there was no significant relationship between FWC time and social dysfunction among those who utilised high planful problem-solving, $t(738) = -1.89$, *ns*. Therefore, Hypothesis 13a(i) that problem-focused coping (i.e., planful problem-solving) would moderate the relationship between FWC time and psychological strain (i.e., social dysfunction) when problem-focused coping (i.e., planful problem-solving) was high was not supported.

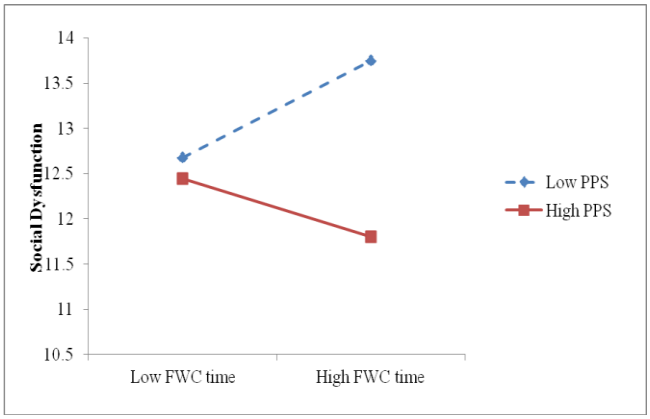

Figure 6.1: The moderating effect of planful problem-solving (PPS) on the relationships between FWC time and social dysfunction at Time 1

The simple slopes tests in Figure 6.2 shows a significant positive relationship between FWC behaviour and social dysfunction among those who utilised high support-seeking (a type of problem-focused coping), $t(738) = 2.36$, $p<0.05$ (in contrast to the expected direction). However, there was no significant relationship between FWC behaviour and social dysfunction among those who used low support-seeking, $t(738) = -1.70$, *ns*. Thus, Hypothesis 13b(iii), that problem-focused coping (i.e., support-seeking) would moderate the relationship between FWC behaviour and psychological strain (i.e., social dysfunction) when problem-focused coping (i.e., support-seeking) was high was not supported.

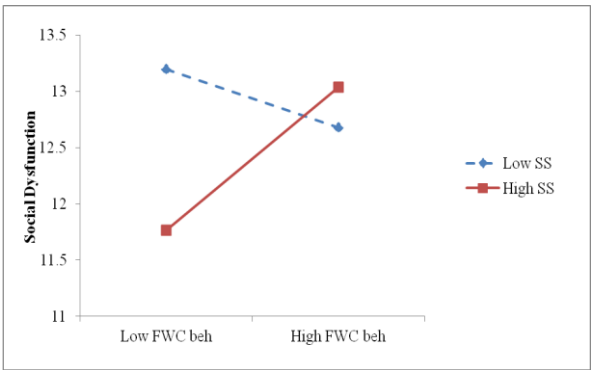

Figure 6.2: The moderating effect of support-seeking (SS) on the relationship between FWC behaviour and social dysfunction at Time 1

Although it was not hypothesised, the simple slopes test in Figure 6.3 illustrates a positive relationship between FWC time and social dysfunction among those who used low escape-avoidance (a type of emotion-focused coping), $t(738) = 3.45$, $p<0.001$ (only high emotion-focused coping was predicted to moderate the relationship between FWC time and social dysfunction). The negative relationship between FWC time and social dysfunction was significant among those who utilised high escape-avoidance, $t(738) = -2.67$, $p<0.001$,

indicating that those who utilised high escape-avoidance reported lower social dysfunction even when they experienced high FWC time. Hence, Hypothesis 13d(i), that emotion-focused coping (i.e., escape-avoidance) would moderate the relationship between FWC time and psychological strain (i.e., social dysfunction) when emotion-focused coping (i.e., escape-avoidance) was high was supported.

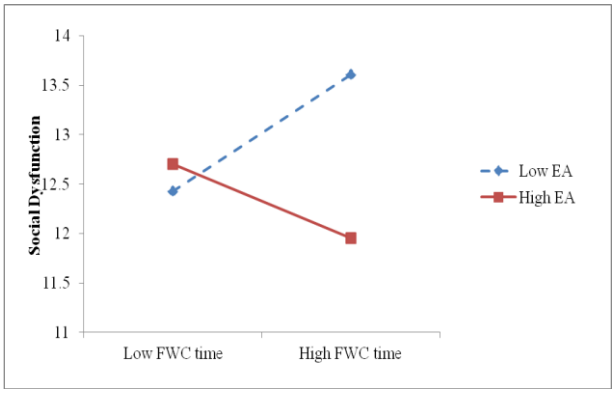

Figure 6.3: The moderating effect of escape-avoidance (EA) on the relationship between FWC time and social dysfunction at Time 1

The simple slopes test in Figure 6.4 presents a positive relationship between FWC time and social dysfunction among those who utilised high positive reappraisal (a type of emotion-focused coping), $t(738) = 2.07$, $p<0.05$ (in contrast to the expected direction). There was no significant relationship between FWC time and social dysfunction among those who used low positive reappraisal, $t(738) = -1.83$, *ns*. Therefore, Hypothesis 31d(i) that emotion-focused coping (i.e., positive reappraisal) would moderate the relationship between FWC time and psychological strain (i.e., social dysfunction) when emotion-focused coping (i.e., positive reappraisal) was high was not supported.

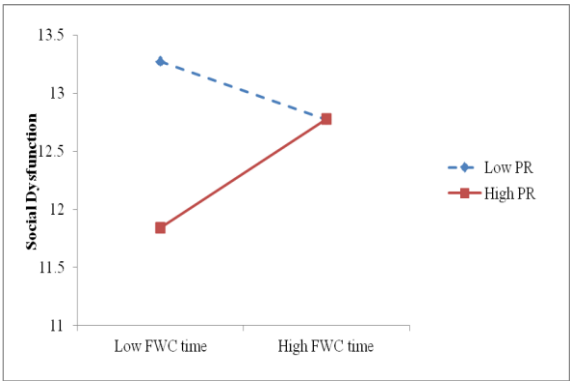

Figure 6.4: The moderating effect of positive reappraisals (PR) on the relationship between FWC time and social dysfunction at Time 1

Consistent with Hypothesis 29a(i) that high WFF would moderate the relationship between WFC time and psychological strain (i.e., social dysfunction), a significant negative relationship between WFC time and social dysfunction was found among those who used high WFF, $t(738) = -6.23$, $p<0.001$ (Figure 6.5).

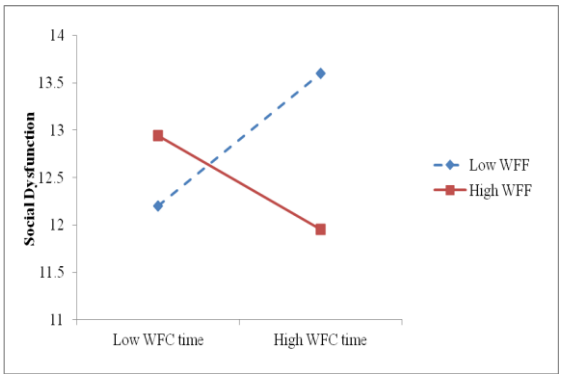

Figure 6.5: The moderating effect of work-to-family facilitation (WFF) on the relationship between WFC time and social dysfunction at Time 1

Although it was not hypothesised, the simple slopes test in Figure 6.5 also indicates a positive relationship between WFC time and social dysfunction when

WFF was low, $t(738) = 25.28$, $p<0.001$ (only high WFF was predicted to moderate the relationship between WFC time and social dysfunction).

Although it was not hypothesised, the simple slopes test in Figure 6.6 shows a positive relationship between WFC time and social dysfunction among those who utilised low FWF, $t(738) = 6.26$, $p<0.001$ (only high FWF was predicted to moderate the relationship between WFC time and social dysfunction). However, no significant relationship was found between WFC time and social dysfunction when FWF was high. Hence, Hypothesis 29c(i) that FWF would moderate the relationship between WFC time and psychological strain (i.e., social dysfunction) when FWF was high was not supported.

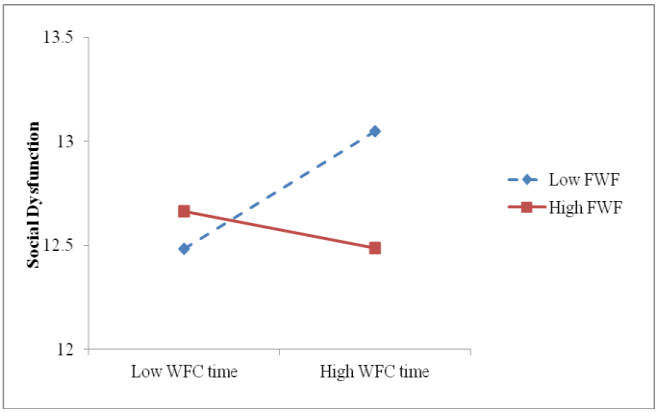

Figure 6.6: The moderating effect of family-to-work facilitation (FWF) on the relationship between WFC time and social dysfunction at Time 1

Overall, out of six interactions plotted for the relationship between work-family conflict and the moderators (coping and work-family facilitation) on social dysfunction, only two interactions (Figure 6.3 and Figure 6.5) supported the hypotheses [H13d(i) and H29a(i)] of the present study.

Anxiety/depression as the criterion variable at Time 1

The interaction terms entered in Step 4 accounted for 4% of the variance in anxiety/depression at Time 1 (Table 6.4). The Δ*F* value indicated that the combinations of the interaction terms entered in Step 4 were not significantly related to anxiety/depression. Therefore, the moderating hypotheses for anxiety/depression at Time 1 (Hypotheses 13 and 29) were not supported and no interaction graph was plotted.

Intention to leave as the criterion variable at Time 1

The interaction terms entered in Step 4 explained 4% of the variance in intention to leave at Time 1 (Table 6.5). The Δ*F* value demonstrated that the combination of the interaction terms was not significantly related to intention to leave. Hence, the moderating hypotheses for intention to leave at Time 1 (Hypotheses 14 and 30) were not supported and no interaction graph was plotted.

Intention to stay as the criterion variable at Time 1

The interaction terms entered in Step 4 accounted for 5% of the variance in intention to stay at Time 1. The Δ*F* value demonstrated that the combination of the interaction terms was not significantly related to intention to stay. Hence, the moderating hypotheses for intention to stay at Time 1 (Hypotheses 14 and 30) were not supported and no interaction graph was plotted.

Job satisfaction as the criterion variable at Time 1

The interaction terms entered in Step 4 explained 4% of the variance in job satisfaction at Time 1 (Table 6.5). The Δ*F* value showed that the combination of

the interaction terms was not significantly related to job satisfaction. Therefore, the moderating hypotheses for job satisfaction at Time 1 (Hypotheses 15 and 31) were not supported and the interaction graph was not plotted.

Family satisfaction as the criterion variable at Time 1

The interaction terms entered in Step 4 accounted for 6% of the variance in family satisfaction at Time 1 (Table 6.6). The relationships between WFC strain and planful problem-solving (β = -0.19) and WFC behaviour and planful problem-solving (β = 0.22) on family satisfaction were statistically significant. The interactions are plotted in Figures 6.7 and 6.8.

Although it was not hypothesised, the simple slopes test in Figure 6.7 also indicates a positive relationship between WFC strain and family satisfaction when planful problem-solving was low, $t(738) = 2.52$, $p<0.05$ (only high problem-focused coping was predicted to moderate the relationship between WFC strain and family satisfaction).

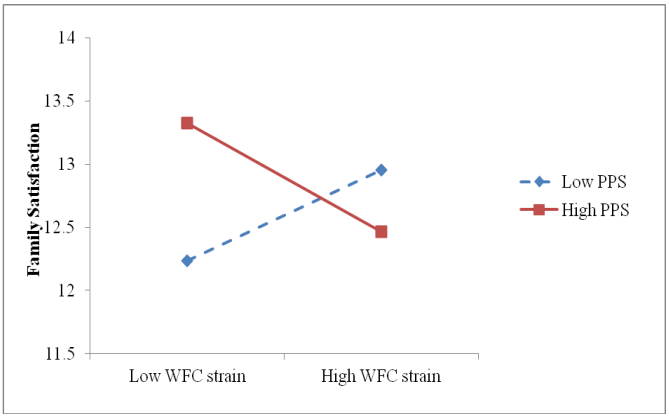

Figure 6.7: The moderating effect of planful problem-solving (PPS) on the relationship between WFC strain and family satisfaction at Time 1

However, a significant negative relationship between WFC strain and family satisfaction was found among those who utilised high planful problem-solving, $t(738) = -2.47$, $p<0.05$ (contradicted to what was hypothesised) (Figure 6.7). Thus, Hypothesis 16a(ii) that high problem-focused coping (i.e., planful problem-solving) would moderate the relationship between WFC strain and family satisfaction was not supported.

Even though it was not hypothesised, the simple slopes test in Figure 6.8 presents a positive relationship between WFC behaviour and family satisfaction among those who utilised low planful problem-solving, $t(738) = -3.99$, $p<0.001$ (only high planful problem-solving was predicted to moderate the relationship between WFC behaviour and family satisfaction).

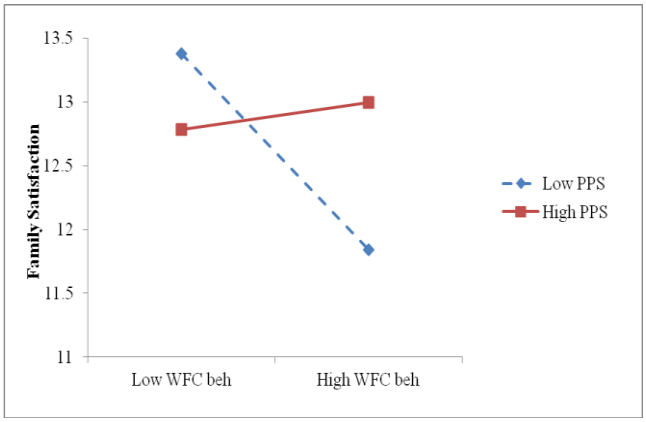

Figure 6.8: The moderating effect of planful problem-solving (PPS) on the relationship between WFC behaviour and family satisfaction at Time 1

However, there was no significant relationship between WFC behaviour and family satisfaction among those who used high planful problem-solving, $t(738) = 1.39$, *ns*. Thus, Hypothesis 16a(iii) that problem-focused coping (i.e., planful problem-solving) would moderate the relationship between WFC

behaviour and family satisfaction, with a stronger positive effect when problem-focused coping (i.e., planful problem-solving) was high was not supported.

Overall, none of the above interactions (Figure 6.7 and Figure 6.8) supported the hypotheses [H16a(ii) and 16a(iii)] of the present study.

Life satisfaction as the criterion variable at Time 1

The interaction terms entered in Step 4 explained 5% of the variance in life satisfaction at Time 1 (Table 6.6). The ΔF value demonstrated that the combination of the interaction terms was not significantly related to life satisfaction. Hence, the moderating effect hypotheses for life satisfaction at Time 1 (Hypotheses 17 and 33) were not supported and no interaction graph was plotted.

6.3 Multivariate analyses of mediating effects at Time 1

The mediating effects of work-family facilitation on the relationships between work-family conflict and criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) were tested by using structural equation modelling (SEM) using AMOS 18. SEM was chosen due to its distinct advantages over regression. First, SEM determines whether a hypothesised model fits the data (Hair, Black, Babin, & Anderson, 2010). Second, SEM allows modelling of both measurement and structural relationships (James, Mulaik, & Brett, 2006). Third, the standard errors of coefficients are larger in regression analysis than SEM, indicating greater precision of estimation in SEM than regression (Iacobucci et al., 2007).

In the present study, the mediation effects were assessed by using a full mediation model because it is more parsimonious than a partial mediation model (James et al., 2006). Then, the direct, indirect, and total mediation effects were examined. Full mediation occurs when the indirect effects are significant and the direct effects are not significant (Mathieu & Taylor, 2006). The indirect effect refers to the change in a predictor variable that produces the change in a criterion variable through a mediator variable. The direct effect is the partial correlation of the predictor and criterion variables after controlling for the mediator. Partial mediation occurs when both the indirect and direct effects are significant (Mathieu & Taylor, 2006).

The fit indices of the models were measured by examining the chi-square test (χ^2), the ratio of chi-square to the degree of freedom ($\chi^2/df \leq 3.00$), the root mean square residual (RMR ≤ 0.09), the root mean square error of approximation (RMSEA ≤ 0.05), and the comparative fit index (CFI ≥ 0.90). The fit indices and chi-square difference between models (before and after modification) were compared to determine significant differences between the models. Then, the indirect, direct, and total effects for the mediation routes were examined to test the specific mediation effect of each hypothesised mediator. The total effect refers to the change in the predictor variable, which affects the criterion variable.

The bootstrapping technique (with n = 1000 bootstrapping resampling) with 95% bias-corrected confidence intervals was used to test the significance of each effect (Cheung & Lau, 2008; Preacher & Hayes, 2008). Bootstrapping was generated by taking a sample of n size (with replacement) from the full set of data and the indirect effects were calculated in the resamples. Bootstrapping analyses

function as a tool to handle the presence of multivariate nonnormal data and to describe the stability and replicability of the sample results (Byrne, 2010).

6.3.1 Analyses of the overall model

Before examining the specific mediation effects of work-family facilitation, the model fit of the overall full mediation model in Figure 6.9 was tested. First, the goodness of fit of the model (Figure 6.9) was examined. Second, the modification and path coefficients of the model was assessed to decide whether and how to modify the model, if necessary. Finally, the fit of the final model was tested and the χ^2 differences between the models, before and after modification were examined to test the significant difference between the models.

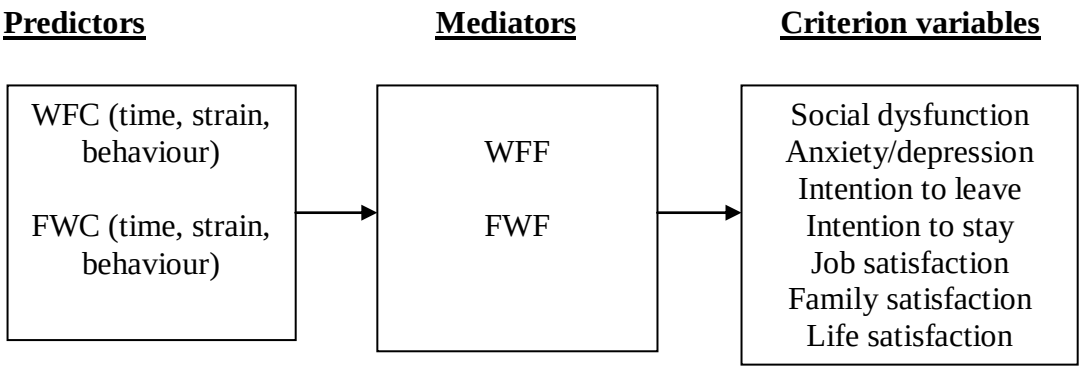

Figure 6.9: Overall full mediation model

Note: Work-family conflict includes work-to-family conflict (WFC) and family-to-work conflict (FWC) (time, strain, and behaviour); work-family facilitation includes work-to-family facilitation (WFF) and family-to-work facilitation (FWF); and strain includes social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction. The variables are combined in this figure for illustration purpose only.

If the full mediation model yielded a poor fit to the data, the partial mediation model was tested (Figure 6.10). A model with the best fit indices (either the full or partial mediation model) was chosen for further analysis. SEM analyses indicated that the overall full mediation model (without any modification) yielded a better goodness of fit to the data than the overall partial

mediation model (before modification) at Time 1. Therefore, the full mediation model was chosen for further analyses in this study. The overall full mediation model without any modification yielded χ^2/df (4.56), *RMR (0.15), RMSEA (0.06),* and *CFI (0.80).*

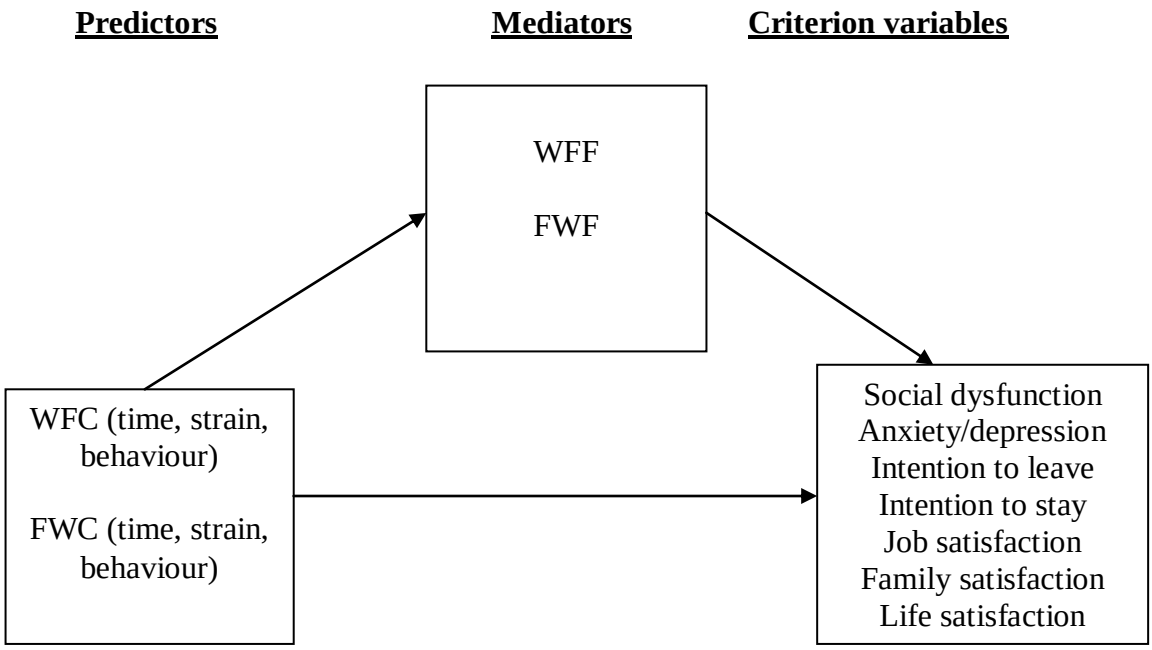

Figure 6.10: Overall partial mediation model

Note: Work-family conflict includes work-to-family conflict (WFC) and family-to-work conflict (FWC) (time, strain, and behaviour); work-family facilitation includes work-to-family facilitation (WFF) and family-to-work facilitation (FWF); and strain includes social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction. The variables are combined in this figure for illustration purpose only.

Therefore, the model was modified based on the modification indices provided. The fit indices of the overall full mediation modified model at Time 1 were strengthened, indicating a reasonable fit to the data, with χ^2/df = 2.82, *RMR* = 0.07, *RMSEA* = 0.05, and *CFI* = 0.90. The value of chi-square difference ($\Delta\chi^2$ = 2783.82, p<0.001) showed substantial difference between the models (the overall full mediation models, before and after modification).

Seven direct pathways were added to the overall model as suggested by the modification indices. The pathways included WFC strain to intentions to social dysfunction, intentions to leave, intentions to stay, job satisfaction, and life satisfaction. In addition, two direct pathways from FWC strain to anxiety and family satisfaction were included. All added pathways statistically improved the model fit and were logical, based on the underlying theories of the model. Hence, the modified full mediation model provided the best fit to the data and was used for further analyses at Time 1.

6.3.2 Mediating effects of work-family facilitation at Time 1

As suggested by Klien, Fan, and Preacher (2006), the model was divided into two sub models so that the mediation effects of each mediator could be tested separately. Specifically, work-family facilitation was divided into two; work-to-family facilitation (WFF) and family-to-work facilitation (FWF) and each dimension was tested in separate SEM analyses. Model A (Figure 6.11) represented WFF as the mediator and Model B (Figure 6.12) represented FWF as another mediator at Time 1. The results of these mediation analyses are presented in the following sections.

Model A: WFF as a mediator at Time 1

The main purpose of these analyses is to examine the direct, indirect, and total mediation effects of WFF on the relationships between work-family conflict and the criterion variables at Time 1 (see Figure 6.11).

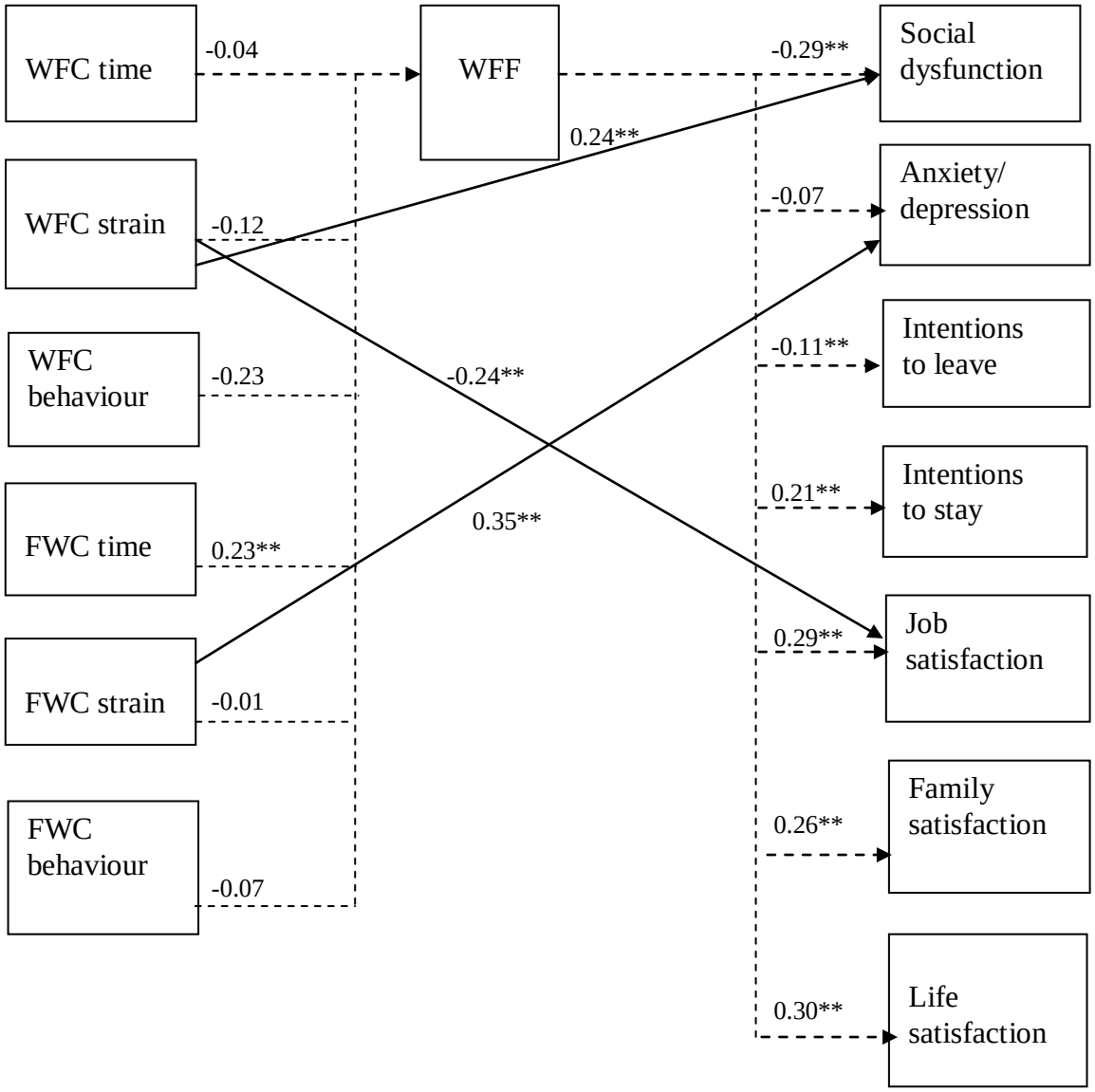

Figure 6.11: Modified Model A with standardised parameter estimates – WFF as a mediator at Time 1

Note: n = 740. ***p<0.001, **p<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour. → indicates the effects of predictor on criterion variables. The - - ► indicates the effects of predictor → mediator → criterion variables.

The model fit of Model A without any modification was not in the recommended range, with χ^2/df = 5.31, RMR = 0.13, RMSEA = 0.076, and CFI = 0.78. Therefore, the model was modified based on the modification indices

provided. According to the modification indices, three new pathways would significantly improve the model fit of Model A at Time 1. Each added pathway significantly improved the model fit and was logical and made conceptual sense, given the underlying theory. The new added pathways were direct paths from WFC strain to social dysfunction, WFC strain to job satisfaction, and FWC strain to anxiety/depression.

The modified Model A yielded a reasonable fit to the data, with χ^2/df = 3.00, RMR = 0.09, RMSEA = 0.05, and CFI = 0.90. The $\Delta\chi^2$ test between the models, before and after modification, demonstrated significant difference ($\Delta\chi^2$ = 2605.48, p<0.001). Thus, the modified Model A was used for further analyses at Time 1. According to Mathieu and Taylor (2006), the relationship between a mediator and a criterion variable needs to be significant as one of the conditions for mediation to occur. Model A at Time 1 demonstrated that the relationship between WFF and anxiety/depression was not significant. Therefore, no further analyses were required for anxiety/depression as the criterion variable.

The main purpose of this analysis was to test the specific mediation effects of WFF in the relationships between work-family conflict and the criterion variables. Hence, the direct, indirect, and total effects of WFF with work-family conflict and each criterion variables were examined and are presented in Table 6.7 to Table 6.12. Table 6.7 presents the direct, indirect, and total effects of WFF between work-family conflict and social dysfunction at Time 1. It was hypothesised that WFF would mediate the relationships between work-family conflict and social dysfunction at Time 1 (Hypotheses 39a and 39b). One out of six mediation paths (16.67%) was significant at Time 1.

Table 6.7

Model A: Mediation effects of WFF between work-family conflict and social dysfunction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → SD	0.00	0.01	0.01	None
WFC strain → WFF → SD	0.24**	0.04	0.28	None
WFC behaviour → WFF → SD	0.00	0.07	0.07	None
FWC time → WFF → SD	0.00	-0.07**	-0.07	Full
FWC strain → WFF → SD	0.00	0.00	0.00	None
FWC behaviour → WFF → SD	0.00	0.02	0.02	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and SD refers to social dysfunction.

The results indicated that WFF fully mediated the relationship of FWC time and social dysfunction. The result provided support for Hypothesis 39b(i) for social dysfunction at Time 1. No other support was found for the mediating effect of WFF between work-family conflict and social dysfunction at Time 1.

According to Table 6.8, one out of six mediation effects (16.67%) of WFF on work-family conflict and intention to leave was significant at Time 1. It was hypothesised that WFF would mediate the relationships between work-family conflict and intention to leave at Time 1 (Hypotheses 40a and 40b). The findings indicated that WFF fully mediated the relationship of FWC time and intention to leave. Hence, Hypothesis 40b(i) for intention to leave at Time 1 was supported. No other support was found for the mediating effect of WFF between work-family conflict and intention to leave at Time 1.

Table 6.8

Model A: Mediation effects of WFF between work-family conflict and intention to leave at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → ITL	0.00	0.00	0.00	None
WFC strain → WFF → ITL	0.00	0.01	0.01	None
WFC behaviour → WFF → ITL	0.00	0.03	0.03	None
FWC time → WFF → ITL	0.00	-0.03**	-0.03	Full
FWC strain → WFF → ITL	0.00	0.00	0.00	None
FWC behaviour → WFF → ITL	0.00	0.00	0.00	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and ITL refers to intention to leave.

Table 6.9 presents the direct, indirect, and total mediation effects of WFF between work-family conflict and intention to stay at Time 1. One out of six mediation paths (16.67%) tested was significant. Specifically, WFF fully mediated the relationship of FWC time and intention to stay. The finding supported Hypothesis 40b(i) for intention to stay at Time 1. No other support was found for the mediating effect of WFF between work-family conflict and intention to stay at Time 1.

Table 6.9

Model A: Mediation effects of WFF between work-family conflict and intention to stay at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → ITS	0.00	-0.00	-0.00	None
WFC strain → WFF → ITS	0.00	-0.02	-0.02	None
WFC behaviour → WFF → ITS	0.00	-0.05	-0.05	None
FWC time → WFF → ITS	0.00	0.05**	0.05	Full
FWC strain → WFF → ITS	0.00	-0.00	-0.00	None
FWC behaviour → WFF → ITS	0.00	-0.01	-0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and ITS refers to intention to stay.

Table 6.10 shows the direct, indirect, and total mediation effects of WFF between work-family conflict and job satisfaction at Time 1. It was hypothesised that WFF would mediate the relationships between work-family conflict and job satisfaction at Time 1 (Hypotheses 41a and 41b). One out of six mediation paths (16.67%) tested were significant. Specifically, WFF fully mediated the relationship of FWC time and job satisfaction. The finding provided support for Hypothesis 41b(i) for job satisfaction at Time 1. No other support was found for the mediating effect of WFF between work-family conflict and job satisfaction at Time 1.

Table 6.10

Model A: Mediation effects of WFF between work-family conflict and job satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → JS	0.00	-0.01	-0.01	None
WFC strain → WFF → JS	-0.24**	-0.03	-0.27	None
WFC behaviour → WFF → JS	0.00	-0.06	-0.06	None
FWC time → WFF → JS	0.00	0.06**	0.06	Full
FWC strain → WFF → JS	0.00	-0.00	-0.00	None
FWC behaviour → WFF → JS	0.00	-0.02	-0.02	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and JS refers to job satisfaction.

The results in Table 6.11 demonstrate the direct, indirect, and total mediation effects of WFF between work-family conflict and family satisfaction at Time 1. It was hypothesised that WFF would mediate the relationships between work-family conflict and family satisfaction at Time 1 (Hypotheses 42a and 42b). One out of six mediation paths (16.67%) was significant. Specifically, WFF fully mediated the relationships of FWC time and family satisfaction. Thus, Hypothesis

42b(i) for family satisfaction at Time 1 was supported. No other support was found for the mediating effect of WFF between work-family conflict and family satisfaction at Time 1.

Table 6.11

Model A: Mediation effects of WFF between work-family conflict and family satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → FS	0.00	-0.01	-0.01	None
WFC strain → WFF → FS	0.00	-0.03	-0.03	None
WFC behaviour → WFF → FS	0.00	-0.06	-0.06	None
FWC time → WFF → FS	0.00	0.06**	0.06	Full
FWC strain → WFF → FS	0.00	-0.00	-0.00	None
FWC behaviour → WFF → FS	0.00	-0.02	-0.02	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and FS refers to family satisfaction.

Table 6.12 presents the direct, indirect, and total mediation effects of WFF between work-family conflict and life satisfaction at Time 1. It was hypothesised that WFF would mediate the relationships between work-family conflict and life satisfaction at Time 1 (Hypotheses 43a and 43b). Out of six mediation paths, one was significant (16.67%). The results show that WFF fully mediated the relationship of FWC time and life satisfaction. Hence, Hypotheses 43b(i) for life satisfaction at Time 1 was supported. No other support was found for the mediating effect of WFF between work-family conflict and life satisfaction at Time 1.

Table 6.12

Model A: Mediation effects of WFF between work-family conflict and life satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → LS	0.00	-0.01	-0.01	None
WFC strain → WFF →LS	0.00	-0.03	-0.03	None
WFC behaviour → WFF → LS	0.00	-0.07	-0.07	None
FWC time → WFF → LS	0.00	0.07**	0.07	Full
FWC strain → WFF → LS	0.00	-0.00	-0.00	None
FWC behaviour → WFF → LS	0.00	-0.02	-0.02	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and LS refers to life satisfaction.

Model B: FWF as a mediator at Time 1

The aim of these analyses was to determine the mediation effects of FWF between work-family conflict and strain at Time 1 as illustrated in Model B (Figure 6.12). Model B without any modification yielded an unreasonable fit to the data, with χ^2/df = 5.19, RMR = 0.13, RMSEA = 0.07, and CFI = 0.79. Therefore, the model was modified based on the modification indices. According to the modification indices, five new pathways would significantly improve the model fit of Model B at Time 1. Each added pathway significantly improved the model fit and was logical and made conceptual sense, given the underlying theory. The new added pathways were direct paths from WFC strain to social dysfunction, WFC strain to intention to leave, WFC strain to job satisfaction, WFC strain to life satisfaction, and FWC strain to anxiety/depression. The modified Model B yielded a reasonable fit to the data, with χ^2/df = 3.00, RMR = 0.09, RMSEA = 0.05, and CFI = 0.90. The $\Delta\chi^2$ test between the models, before and after modification, demonstrated significant difference ($\Delta\chi^2$ = 2441.06, p<0.001).

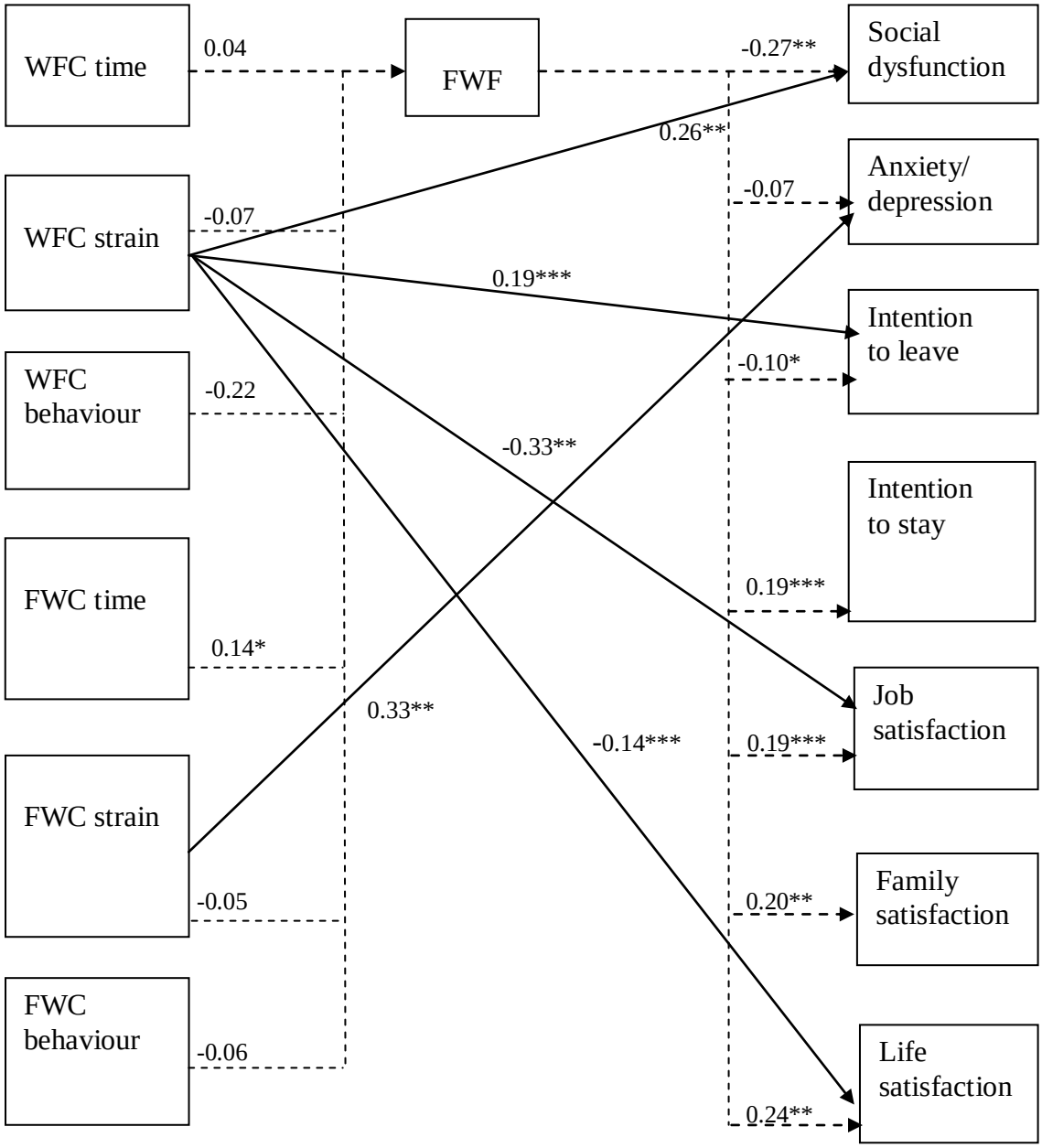

Figure 6.12: Modified Model B with standardised parameter estimates – FWF as a mediator at Time 1

Note: n = 740. ***p<0.001, **p<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour. → indicates the effects of predictor on criterion variables. The - - ► indicates the effects of predictor → mediator → criterion variables.

Therefore, the modified Model B was used for further analyses at Time 1. Model B at Time 1 demonstrated that the relationship between FWF and anxiety/depression was not significant. Therefore, no further analyses were required for anxiety/depression as the criterion variable.

The main objective of this analysis was to test the specific mediation effects of FWF in the relationships between work-family conflict and the criterion variables. Hence, the direct, indirect, and total effects of FWF with work-family conflict and each criterion variable were examined and presented in Table 6.13 to Table 6.18. Table 6.13 presents the direct, indirect, and total effects of FWF between work-family conflict and social dysfunction at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and social dysfunction at Time 1 (Hypotheses 39c and 39d).

Table 6.13

Model B: Mediation effects of FWF between work-family conflict and social dysfunction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → SD	0.00	-0.01	-0.01	None
WFC strain → FWF → SD	0.26**	0.02	0.28	None
WFC behaviour → FWF → SD	0.00	0.06	0.06	None
FWC time → FWF → SD	0.00	-0.03*	-0.03	Full
FWC strain → FWF → SD	0.00	0.01	0.01	None
FWC behaviour → FWF → SD	0.00	0.01	0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and SD refers to social dysfunction.

Out of six mediation paths, one was significant (16.67%). Specifically, FWF fully mediated the relationship of FWC time and social dysfunction. Hence, Hypothesis 39d(i) for social dysfunction at Time 1 was supported. No other

support was found for the mediating effect of FWF between work-family conflict and social dysfunction at Time 1.

Table 6.14 presents the direct, indirect, and total effects of FWF on work-family conflict and intention to leave at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and intention to leave at Time 1 (Hypotheses 40c and 40d). The results indicated that one out of six mediation paths (16.67%) was significant. Specifically, FWF fully mediated the relationships of FWC time and intention to leave. Hypotheses 40d(i) for intention to leave at Time 1 was supported. No other support was found for the mediating effect of FWF between work-family conflict and intention to leave at Time 1.

Table 6.14

Model B: Mediation effects of FWF between work-family conflict and intention to leave at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → ITL	0.00	-0.00	-0.00	None
WFC strain → FWF → ITL	0.19***	0.00	0.19	None
WFC behaviour → FWF → ITL	0.00	0.02	0.02	None
FWC time → FWF → ITL	0.02	-0.01*	0.01	Full
FWC strain → FWF → ITL	0.00	0.00	0.00	None
FWC behaviour → FWF → ITL	0.00	0.00	0.00	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and ITL refers to intention to leave.

Table 6.15 shows the direct, indirect, and total effects of FWF on work-family conflict and intention to stay at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and intention to stay at Time 1 (Hypotheses 40c and 40d). One out of six mediation effects

(16.67%) of FWF on work-family conflict and intention to stay were significant. Specifically, FWF fully mediated the relationships of FWC time and intention to stay. Hence, Hypothesis 40d(i) for intention to stay at Time 1 was supported. No other support was found for the mediating effect of FWF between work-family conflict and intention to stay at Time 1.

Table 6.15

Model B: Mediation effects of FWF between work-family conflict and intention to stay at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → ITS	0.00	0.00	0.00	None
WFC strain → FWF → ITS	0.00	-0.01	-0.01	None
WFC behaviour → FWF → ITS	0.00	-0.04	-0.04	None
FWC time → FWF → ITS	0.00	0.02*	0.02	Full
FWC strain → FWF → ITS	0.00	-0.00	-0.00	None
FWC behaviour → FWF → ITS	0.00	-0.01	-0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and ITS refers to intention to stay.

Table 6.16 presents the direct, indirect, and total mediation effects of FWF between work-family conflict and job satisfaction at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and job satisfaction at Time 1 (Hypotheses 41c and 41d). The results indicated that one out of six mediation paths (16.67%) tested was significant. Specifically, FWF fully mediated the relationships of FWC time and job satisfaction. The findings supported Hypothesis 42d(i) for job satisfaction at Time 1. No other support was found for the mediating effect of FWF between work-family conflict and job satisfaction at Time 1.

Table 6.16

Model B: Mediation effects of FWF between work-family conflict and job satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → JS	0.00	0.00	0.00	None
WFC strain → FWF → JS	-0.33**	-0.01	-0.34	None
WFC behaviour → FWF → JS	0.00	-0.04	-0.04	None
FWC time → FWF → JS	0.00	0.02*	0.02	Full
FWC strain → FWF → JS	0.00	-0.01	-0.01	None
FWC behaviour → FWF → JS	0.00	-0.01	-0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and JS refers to job satisfaction.

The results in Table 6.17 demonstrated the direct, indirect, and total mediation effects of FWF between work-family conflict and family satisfaction at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and family satisfaction at Time 1 (Hypotheses 42c and 42d).

Table 6.17

Model B: Mediation effects of FWF between work-family conflict and family satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → FS	0.00	0.03	0.03	None
WFC strain → FWF → FS	0.00	-0.04	-0.04	None
WFC behaviour → FWF → FS	0.00	-0.05	-0.05	None
FWC time → FWF → FS	0.00	0.03*	0.03	Full
FWC strain → FWF → FS	0.00	-0.01	-0.01	None
FWC behaviour → FWF → FS	0.00	-0.01	-0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and FS refers to family satisfaction.

It was found that one out of six mediation path (16.67%) was significant. Specifically, FWF fully mediated the relationships of FWC time and family satisfaction. Thus, Hypothesis 42d(i) for family satisfaction at Time 1 was supported. No other support was found for the mediating effect of FWF between work-family conflict and family satisfaction at Time 1.

Table 6.18 presents the direct, indirect, and total mediation effects of FWF between work-family conflict and life satisfaction at Time 1. It was hypothesised that FWF would mediate the relationships between work-family conflict and life satisfaction at Time 1 (Hypotheses 43c and 43d).

Table 6.18

Model B: Mediation effects of FWF between work-family conflict and life satisfaction at Time 1

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → LS	0.00	0.01	0.01	None
WFC strain → FWF →LS	-0.14***	-0.01	-0.15	None
WFC behaviour → FWF → LS	0.00	-0.05	-0.05	None
FWC time → FWF → LS	0.00	0.03*	0.03	Full
FWC strain → FWF → LS	0.00	-0.01	-0.01	None
FWC behaviour → FWF → LS	0.00	-0.01	-0.01	None

Note: [a]n = 740. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and LS refers to life satisfaction.

Out of six mediation paths, one was significant (16.67%). The results show that FWF fully mediated the relationships of FWC time and life satisfaction. Hence, Hypothesis 43d(i) for life satisfaction at Time 1 was supported. No other support was found for the mediating effect of FWF between work-family conflict and life satisfaction at Time 1.

Chapter Summary

In summary, most of the predictors and criterion variables were correlated at Time 1. All types of WFC and FWC (time, strain, and behaviour) were correlated with all criterion variables. All types of coping were related to social dysfunction, intentions to leave, and life satisfaction at Time 1. Besides, planful problem-solving, support-seeking, and positive reappraisals were correlated with anxiety/depression, job satisfaction, and family satisfaction at Time 1. Planful problem-solving and positive reappraisals were also related to intention to stay at Time 1. Work-to-family facilitation (WFF) and family-to-work facilitation (FWF) were correlated with social dysfunction, intentions to stay, job satisfaction, family satisfaction, and life satisfaction at Time 1. Only FWF was related to anxiety/depression and intention to leave at Time 1.

Few supports were found for the main effects of certain types of work-family conflict, coping, and work-family facilitation on the criterion variables at Time 1. WFC and FWC strain, planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals were significantly related to social dysfunction. FWC strain and planful problem-solving were significantly related to anxiety depression, while WFC strain and escape-avoidance were significantly related to intention to leave. WFC (time and strain) and WFF were significantly related to intentions to stay and job satisfaction, whereas WFC behaviour, FWC strain, support-seeking, and WFF were significantly related to family satisfaction. FWC strain, support-seeking, and WFF were significantly related to life satisfaction at Time 1. Besides, escape-avoidance was significantly related to anxiety/depression, but in the opposite direction than that hypothesised. Similarly,

FWC behaviour was significantly related to family satisfaction in the opposite direction to that predicted at Time 1.

Very minimal support was found for the moderating effects of coping and work-family facilitation at Time 1. As expected, individuals with high escape-avoidance reported lower social dysfunction even in the presence of high FWC time. Additionally, as hypothesised, individuals with high WFF reported lower social dysfunction even in the presence of high WFC time. The graphs plotted for the moderating effects between work-family conflict and coping on family satisfaction did not support the hypotheses of the present study. No moderating effects of coping and work-family facilitation were found between work-family conflict and anxiety/depression, intention to leave, intention to stay, job satisfaction, and life satisfaction at Time 1.

There was some support for mediating effects of both WFF and FWF on the relationships between work-family conflict and the criterion variables at Time 1. WFF and FWF minimally mediated the relationships between FWC time with social dysfunction, intention to leave, intention to stay, job satisfaction, family satisfaction and life satisfaction at Time 1. No mediating effects of WFF and FWF were found between work-family conflict and anxiety/depression at Time 1. In the following chapter (Chapter 7), the Time 2 results are discussed.

CHAPTER 7

TIME 2 RESULTS

Chapter Overview

The aim of this chapter is to test the cross-sectional relationships of predictors (work-family conflict) and criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 2. The direct and moderating effects of coping and work-family facilitation were examined. The mediating roles of work-family facilitation in the relationships between work-family conflict and the criterion variables were also investigated. This chapter presents the results of cross-sectional analyses for the data collected at Time 2, and is divided into three main sections: (a) descriptive statistics and correlations, (b) multivariate analyses of direct and moderation effects using hierarchical regression, and (c) mediation analyses using structural equation modelling.

7.1 Descriptive statistics and correlations at Time 2

Table 7.1 presents means, standard deviations, and correlations of demographic variables with the predictors and criterion variables at Time 2. Overall, the correlations of all variables were in the expected directions. WFC and FWC strain were significantly positively related to social dysfunction, anxiety/depression, and intention to leave, but significantly negatively correlated with job, family, and life satisfaction at Time 2.

Table 7.1

Means, standard deviations, and correlations of predictors and criterion variables at Time 2

Variables	Mean	*S.D.*	WFC time	WFC strain	WFC behaviour	FWC time	FWC strain	FWC behaviour	PPS	SS
WFC time	7.56	2.51	-							
WFC strain	7.95	2.53	0.58**	-						
WFC behaviour	7.47	2.28	0.40**	0.50**	-					
FWC time	6.63	1.84	0.56**	0.55**	0.44**	-				
FWC strain	6.68	2.14	0.42**	0.53**	0.48**	0.56**	-			
FWC behaviour	7.24	2.22	0.39**	0.50**	0.74**	0.23**	0.45**	-		
PPS	12.08	1.68	-0.08	-0.24**	-0.13	-0.18**	-0.21**	-0.19**	-	
Support-seeking	10.80	2.96	-0.11	-0.19**	-0.14	-0.04	-0.23**	-0.17**	0.43**	-
Escape-avoidance	10.33	2.19	0.01	0.01	0.14	0.03	0.05	0.06	0.18**	0.10
Positive reappraisal	12.25	1.80	0.00	-0.08	-0.02	-0.05	-0.04	-0.01	0.39**	0.32**
WFF	34.98	5.23	0.03	-0.06	-0.17	-0.08	0.01	-0.23**	0.22**	0.20**
FWF	35.85	5.02	0.07	-0.01	-0.15	-0.02	-0.01	-0.21**	0.26**	0.24**
Social Dysfunction	11.82	3.56	0.11	0.26**	0.10	0.17	0.18**	0.15	-0.29**	-0.25**
Anxiety/Depression	8.29	2.90	0.24**	0.45**	0.32**	0.31**	0.45**	0.31**	-0.29**	-0.25**
Intentions to leave	4.29	2.12	0.09	0.28**	0.23**	0.19**	0.31**	0.22**	-0.08	-0.13
Intentions to stay	7.52	2.25	0.04	-0.09	0.20	-0.02	-0.05	-0.00	0.01	-0.03
Job Satisfaction	11.80	2.04	-0.20**	-0.29**	-0.26**	-0.20**	-020**	-0.26**	0.10	0.10
Family Satisfaction	11.65	2.13	-0.28**	-0.45**	-0.33**	-0.30**	-0.20**	-0.36**	0.32**	0.21**
Life Satisfaction	15.33	2.86	-0.28**	-0.37**	-0.24**	-0.25**	-2.10**	-0.24**	0.33**	0.21**

Table 7.1

(continued)

Variables	EA	PR	WFF	FWF	SD	AD	ITL	ITS	JS	FS	LS
WFC time											
WFC strain											
WFC behaviour											
FWC time											
FWC strain											
FWC behaviour											
PPS											
Support-seeking											
Escape-avoidance	-										
Positive reappraisal	0.50**	-									
WFF	0.21**	0.30**	-								
FWF	0.21**	0.25**	0.80**	-							
Social Dysfunction	-0.21**	-0.30**	-0.12	-0.12	-						
Anxiety/Depression	0.15	-0.04	0.04	0.05	0.16	-					
Intentions to leave	0.10	-0.03	0.04	0.08	0.01	0.38**	-				
Intentions to stay	0.03	0.12	0.05	0.03	-0.14	-0.14	-0.38**	-			
Job Satisfaction	-0.02	0.14	0.11	0.11	-0.19**	-0.31**	-0.50**	0.42**	-		
Family Satisfaction	0.03	0.18**	0.19**	0.13	-0.37**	-0.30**	-0.18	0.06	0.42**	-	
Life Satisfaction	-0.02	0.16	0.15	0.11	-0.34**	-0.28**	-0.24**	0.04	0.45**	0.81**	-

Note: $N = 210$, ** $p < 0.01$; WFC = work-to-family conflict, FWC = family-to-work conflict, PPS = planful problem-solving, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

WFC behaviour and FWC (time and behaviour) were significantly positively related to anxiety/depression and intention to leave, but significantly negatively correlated with job satisfaction, family satisfaction, and life satisfaction at Time 2. WFC time was significantly positively correlated with social dysfunction and anxiety/depression, but significantly negatively related to job, family, and life satisfaction at Time 2. Planful problem-solving and support-seeking were significantly negatively related to social dysfunction and anxiety/depression, but significantly positively correlated with family and life satisfaction at Time 2 (Table 7.1). Escape-avoidance and positive reappraisal were significantly negatively related to social dysfunction. For work-family facilitation variables, only work-to-family facilitation (WFF) was related to family satisfaction at Time 2. No significant correlation was found between any predictor and intentions to stay at Time 2.

High correlations were found between work-to-family facilitation (WFF) and family-to-work facilitation (FWF) (r = 0.80) and between WFC behaviour and FWC behaviour (r = 0.74) at Time 2. Hence, collinearity diagnostics were conducted by using regression analyses. Separate regression analysis was conducted for each criterion variable. The results demonstrated that there was no collinearity in the data at Time 2 based on the average variance inflation factor (VIF) that was very close to 1 and the tolerance statistics which were above 0.2 (Field, 2009). In addition, work-to-family and family-to-work (conflict and facilitation) were conceptually two different constructs and this study aims at investigating the effects of both constructs (work-to-family and family-to-work) separately. Thus, WFC and FWC, as well as WFF and FWF, were analysed as two separate conflict and facilitation measures in further analyses. In addition,

centered scores of all predictors and moderators were used in regression analyses to avoid multicollinearity. Table 7.1 also indicated that two satisfaction measures, family and life satisfaction were highly correlated (r = 0.81). However, both scales were analysed as two separate measures because the high correlations were not consistent at Time 1 and Time 2. The same variables were only moderately correlated at Time 1 (see Table 6.3, Chapter 6).

7.2 Multivariate analyses of direct and moderating effects at Time 2

As at Time 1, hierarchical moderated regression analysis was used to estimate the main and moderating effects, while controlling for demographic variables (age, organisational tenure, job tenure, and industry) and negative affectivity (NA upset and NA afraid) at Time 2. In Step 1 of the regression analysis, the demographic variables were entered, and followed by Time 2 negative affectivity in Step 2. Both sets of variables (demographic variables and negative affectivity) were entered as separate control variables in the regression analyses because the researcher was interested to look at the different effects of each set of variables on each criterion variable. In step 3, Time 2 WFC and FWC (time, strain, and behaviour), Time 2 coping (planful problem solving, support seeking, positive reappraisal, and escape-avoidance), and Time 2 work-family facilitation (WFF and FWF) were entered to examine the main effects of the predictors on criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 2.

In Step 4, the interaction terms between Time 2 work-family conflict and coping; and Time 2 work-family conflict and work-family facilitation were entered to test the moderating effects of coping and work-family facilitation. Centered scores were calculated for all predictors, moderators, and interaction terms before the regression analyses. Separate regression analyses were conducted for each criterion variable. The following section discusses the hierarchical regression of the main and moderating effects at Time 2.

7.2.1 Direct effects at Time 2

This section presents the direct effects of all predictors on the criterion variables at Time 2. The moderating effects of coping and work-family facilitation will be discussed in the next section (Section 7.2.2).

Social dysfunction as the criterion variable at Time 2

Table 7.2 displays the results of hierarchical regression analyses of predictor variables on social dysfunction and anxiety/depression at Time 2. In Step 1, the demographic variables accounted for 1% of the variance in social dysfunction. In Step 2, negative affectivity explained 2% of the variance in social dysfunction. In Step 3, all predictors accounted for 13% of the total variance in social dysfunction. Further investigation of the coefficients showed that one out of 12 (8.33%) predictors was significantly related to social dysfunction at Time 2. Specifically, positive reappraisal was significantly negatively related to social dysfunction at Time 2 (β = – 0.19). That is, individuals with high positive reappraisal experienced low social dysfunction. There was no support for the

relationship between other predictor variables and social dysfunction at Time 2. Therefore, this result supports Hypothesis 7b at Time 2.

Table 7.2

Hierarchical regression of social dysfunction and anxiety/depression on work-family conflict, coping, and work-family facilitation at Time 2

Variables	Social dysfunction		Anxiety/ depression	
(n = 210)	ΔR^2	β	ΔR^2	β
Step 1	0.01		0.03	
Age		0.09		0.03
Organisational tenure		-0.23		-0.29
Job tenure		0.05		0.01
Construction		-0.01		-0.03
Education		-0.14		0.11
Manufacturing		-0.11		0.04
Finance		-0.16		0.15
Others		-0.12		-0.00
Step 2	0.02		0.19***	
NA (fear)		0.21		0.12
NA (distress)		-0.06		0.33**
Step 3	0.13**		0.38***	
WFC time		0.04		-0.03
WFC strain		0.08		0.16
WFC behaviour		-0.14		-0.05
FWC time		0.04		0.03
FWC strain		0.04		0.20*
FWC behaviour		0.09		0.17
Planful problem-solving		-0.11		-0.09
Support-seeking		-0.12		-0.12
Escape-avoidance		-0.06		0.17*
Positive reappraisal		-0.19*		-0.05
WFF		0.00		0.13
FWF		-0.01		0.02
Step 4	0.07		0.34	

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation. β values in Step 4 for social dysfunction and anxiety/depression were not included in the table because the ΔR^2 values were not significant.

Anxiety/depression as the criterion variable at Time 2

In Step 1, the demographic variables accounted for 3% of the total variance in anxiety/depression at Time 2 (see Table 7.2). In Step 2, negative affectivity explained 19% of the variance in anxiety depression. Specifically, NA (distress) was positively related to anxiety/depression at Time 2 (β = 0.33). In

Step 3, all predictor variables accounted for 38% of the variance in anxiety/depression at Time 2. Two out of 12 predictors (16.67%) were significantly related to anxiety/depression at Time 2. As expected, FWC strain was positively related to anxiety depression (β = 0.20), and hence, Hypothesis 1b for anxiety/depression at Time 2 is supported. Escape-avoidance however, was positively related to anxiety/depression (β = 0.17), and therefore this finding contradicts Hypothesis 7b at Time 2. There was no support for the relationship between other predictor variables and anxiety/depression at Time 2

Intention to leave as the criterion variable at Time 2

Table 7.3 shows the results of hierarchical regression of intention to leave, intention to stay, and job satisfaction on work-family conflict, coping, and work-family facilitation at Time 2. In Step 1, the demographic variables explained 12% of the variance in intention to leave at Time 2. In Step 2, negative affectivity accounted for 12% of the total variance in intention to leave. In Step 3, the predictors explained for 16% of the variance in intention to leave. Hence, Hypotheses 3, 9, and 25 for intention to leave at Time 2 were not supported.

Intention to stay as the criterion variable at Time 2

In Step 1, the demographic variables explained 5% of the variance in intention to stay at Time 2 (Table 7.3). In Step 2, negative affectivity accounted for 7% of the variance in intention to stay. In Step 3, predictor variables explained 6% of the variance in intention to stay at Time 2. Therefore, Hypotheses 3, 9, and 25 for intention to stay at Time 2 were not supported.

Table 7.3

Hierarchical regression of intentions to leave, intentions to stay, and job satisfaction on work-family conflict, coping, and work-family facilitation at Time 2

Variables	Intentions to leave		Intentions to stay		Job satisfaction	
(n = 210)	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	0.12***		0.05*		0.04	
Age		0.09		0.09		0.06
Organisational tenure		-0.23		0.08		0.24
Job tenure		-0.08		-0.25		-0.18
Construction		0.25**		-0.17*		-0.16
Education		0.02		-0.09		0.11
Manufacturing		0.24**		-0.13		-0.02
Finance		0.20*		-0.22*		-0.04
Others		0.09		-0.13		-0.09
Step 2	0.12		0.07		0.09**	
NA (fear)		0.04		0.17		0.08
NA (distress)		0.09		-0.27		-0.31**
Step 3	0.16		0.06		0.14	
WFC time		-0.18		0.11		-0.01
WFC strain		0.14		-0.06		-0.06
WFC behaviour		-0.08		-0.21		0.02
FWC time		-0.01		-0.06		0.00
FWC strain		0.15		-0.02		0.05
FWC behaviour		0.22		-0.21		-0.28
Planful problem-solving (PPS)		0.06		-0.11		-0.06
Support-seeking (SS)		-0.07		-0.08		0.02
Escape-avoidance (EA)		0.08		-0.05		-0.08
Positive reappraisal (PR)		-0.09		0.16		0.15
WFF		0.04		-0.13		-0.08
FWF		0.13		0.16		0.13
Step 4	0.20		0.03		0.23*	
WFC time X PPS		-0.04		0.06		0.06
WFC strain X PPS		0.35		-0.05		-0.22
WFC behaviour X PPS		0.27		-0.17		0.02
FWC time X PPS		-0.24		-0.14		-0.18
FWC strain X PPS		-0.06		-0.05		0.14
FWC behaviour X PPS		-0.24		-0.08		0.04
WFC time X SS		-0.03		0.10		0.04
WFC strain X SS		-0.08		0.15		0.38**
WFC behaviour X SS		0.01		0.04		0.07
FWC time X SS		0.15		-0.03		0.12
FWC strain X SS		-0.05		0.04		0.04
FWC behaviour X SS		-0.14		0.03		-0.28
WFC time X EA		0.18		-0.18		-0.25
WFC strain X EA		-0.27		0.25		0.36*
WFC behaviour X EA		-0.17		-0.04		0.15
FWC time X EA		0.03		0.12		0.05
FWC strain X EA		0.13		-0.27		-0.33*
FWC behaviour X EA		0.21		0.01		-0.11
WFC time X PR		0.11		-0.12		-0.01
WFC strain X PR		0.06		-0.08		-0.26
WFC behaviour X PR		-0.04		0.12		-0.02
FWC time X PR		-0.22		-0.12		0.14

Table 7.3

(continued)

Variables (n = 210)	Intentions to leave ΔR^2	Intentions to leave β	Intentions to stay ΔR^2	Intentions to stay β	Job satisfaction ΔR^2	Job satisfaction β
Step 4						
FWC strain X PR		0.08		0.17		0.05
FWC behaviour X PR		0.08		-0.02		0.13
WFC time X WFF		-0.08		-0.19		0.50*
WFC strain X WFF		0.02		0.31		0.04
WFC behaviour X WFF		-0.19		-0.28		-0.10
FWC time X WFF		0.34		-0.17		0.31
FWC strain X WFF		-0.19		-0.21		0.05
FWC behaviour X WFF		0.01		0.44		-0.06
WFC time X FWF		-0.11		0.26		0.53**
WFC strain X FWF		-0.22		-0.18		0.03
WFC behaviour X FWF		0.38		0.10		-0.29
FWC time X FWF		-0.08		0.15		-0.52**
FWC strain X FWF		-0.08		0.07		0.21
FWC behaviour X FWF		-0.03		-0.36		0.29

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

Job satisfaction as the criterion variable at Time 2

In Step 1, the demographic variables accounted for 4% of the total variance in job satisfaction at Time 2 (Table 7.3). In Step 2, negative affectivity explained 9% of the variance in job satisfaction, with NA (distress) was significantly negatively related to job satisfaction (β = -0.31). In Step 3, predictor variables accounted for 14% of the variance in job satisfaction. The results fail to support Hypotheses 3, 9, and 25 for job satisfaction at Time 2.

Family satisfaction as the criterion variable at Time 2

Table 7.4 presents the hierarchical regression of family and life satisfaction on work-family conflict, coping, and work-family facilitation at Time 2. In Step 1, demographic variables explained 0.00% of the variance in family satisfaction. In Step 2, negative affectivity accounted for 6% of the variance in family satisfaction. Specifically, NA distress was significantly negatively related to family satisfaction at Time 2 (β = -0.24). In Step 3, the predictors explained 24% of the variance in family satisfaction. One out of 12 predictors (8.33%) was significantly related to family satisfaction at Time 2. Specifically, WFC strain was significantly negatively (β = -0.20) related to family satisfaction at Time 2. The result supports Hypothesis 5a(ii) for family satisfaction at Time 2. No support was found for the relationship between other predictor variables and family satisfaction at Time 2.

Life satisfaction as the criterion variables at Time 2

In Step 1, the demographic variables explained 0.00% of the total variance in life satisfaction (Table 7.4). In Step 2, negative affectivity accounted for 4% of the variance in life satisfaction at Time 2. In Step 3, all predictor variables explained 17% of the variance in life satisfaction. One out of 12 predictors (8.33%) was significantly related to life satisfaction at Time 2. Specifically, planful problem-solving was significantly positively related to life satisfaction (β = 0.18). As predicted, high planful problem-solving was related to high life satisfaction and therefore, the finding supports Hypothesis 11c for life satisfaction at Time 2. There was no support for the relationship between other predictor variables and life at Time 2.

Table 7.4

Hierarchical regression of family and life satisfaction on work-family conflict, coping, and work-family facilitation at Time 2

Variables	Family satisfaction		Life satisfaction	
(n = 210)	ΔR^2	β	ΔR^2	β
Step 1	0.00		0.00	
Age		0.09		0.08
Organisational tenure		-0.02		0.01
Job tenure		0.09		0.11
Construction		-0.01		-0.02
Education		0.07		0.02
Manufacturing		-0.03		0.03
Finance		0.07		0.02
Others		-0.02		-0.07
Step 2	0.05**		0.04	
NA (fear)		-0.02		-0.00
NA (distress)		-0.24*		-0.22
Step 3	0.25***		0.17***	
WFC time		-0.14		-0.18
WFC strain		-0.20*		-0.11
WFC behaviour		-0.05		0.08
FWC time		-0.02		-0.01
FWC strain		0.08		0.07
FWC behaviour		-0.14		-0.14
Planful problem-solving		0.11		0.18*
Support-seeking		0.07		0.09
Escape-avoidance		-0.05		-0.14
Positive reappraisal		0.08		0.09
WFF		0.13		0.12
FWF		-0.05		-0.08
Step 4	0.29		0.15	

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation. β values in Step 4 for family and life satisfaction were not included in the table because the ΔR^2 values were not significant.

7.2.2 Moderating effects at Time 2

The moderating effects of coping and work-family facilitation at Time 2 were examined in this study. Five out of 36 moderating effects of coping and work-family facilitation on the relationships between work-family conflict and job satisfaction at Time 2 (13.89%) were significant. As for the other criterion variables (social dysfunction, anxiety/depression, intentions to leave, intentions to stay, family satisfaction, and life satisfaction), no significant moderating effects

was found at Time 2. The graphical interactions for significant moderating effects are discussed in the following sections.

Social dysfunction as the criterion variable at Time 2

In Step 4 (Table 7.2), the interaction terms between all predictors and moderators explained 7% of the total variance in social dysfunction at Time 2. Due to the insignificant ΔR^2 in Step 4, no further analyses were required for the moderating effects of coping and work-family facilitation on social dysfunction at Time 2. Thus, the moderating hypotheses for social dysfunction (Hypotheses 13 and 29) at Time 2 were not supported.

Anxiety/depression as the criterion variable at Time 2

In Step 4, the interaction terms accounted for 34% of the variance in anxiety/depression at Time 2 (Table 7.2). Similar to social dysfunction, no further analyses were required for the moderating effects of coping and work-family facilitation on anxiety/depression due to insignificant ΔR^2 in Step 4. Thus, Hypotheses 13 and 29 for anxiety/depression at Time 2 were not supported.

Intention to leave as the criterion variable at Time 2

The interaction terms entered in Step 4 explained 20% of the variance in intention to leave at Time 2 (Table 7.3). However, the ΔR^2 in Step 4 was insignificant and therefore, no further analyses were required. The results failed to support Hypotheses 14 and 30 for intention to leave at Time 2.

Intention to stay as the criterion variable at Time 2

In Step 4, the interaction terms accounted for 3% of the total variance in intention to stay at Time 2 (Table 7.3). However, none of the interactions was significant. Hence, moderating hypotheses for intention to stay (Hypotheses 14 and 30) at Time 2 were not supported.

Job satisfaction as the criterion variable at Time 2

In Step 4, the interaction terms explained 23% of the total variance in job satisfaction at Time 2 (Table 7.3). Five out of 36 moderating effects of coping and work-family facilitation on the relationships between work-family conflict and job satisfaction at Time 2 (13.89%) were significant. As expected, support-seeking (β = 0.38) and escape-avoidance (β = 0.36) moderated the relationships between WFC strain and job satisfaction at Time 2. In addition, FWF (β = 0.53) moderated the relationships between WFC time and job satisfaction at Time 2. Escape-avoidance, however, moderated the relationship between FWC strain and job satisfaction in the opposite direction than that hypothesised (β = -0.33) at Time 2. Similarly, WFF (β = -0.50) moderated the relationships between WFC time and job satisfaction in the opposite direction than that hypothesised. The interactions were plotted in Figures 7.1 to 7.5 by using the simple effects equations (Aiken & West, 1991) with minimum and maximum mean values of moderators. Then, the simple slopes tests were conducted to investigate the interaction effects between the predictors and moderators on job satisfaction.

Although it was not hypothesised, the simple slopes test in Figure 7.1 illustrates a significant negative relationship between WFC strain and job satisfaction among those who used low support-seeking (a type of problem-

focused coping), *t(208)* = -2.84 (only high support-seeking was hypothesised to moderate the relationship between WFC strain and job satisfaction). However, no relationship was found between WFC strain and job satisfaction when support-seeking was high, *t(208)* = 1.42, *ns*., *p*<0.01. Hence, Hypothesis H15a(ii) that problem-focused coping (i.e., support-seeking) would moderate the relationship between WFC strain and job satisfaction when problem-focused coping (i.e., support-seeking) was high, was not supported.

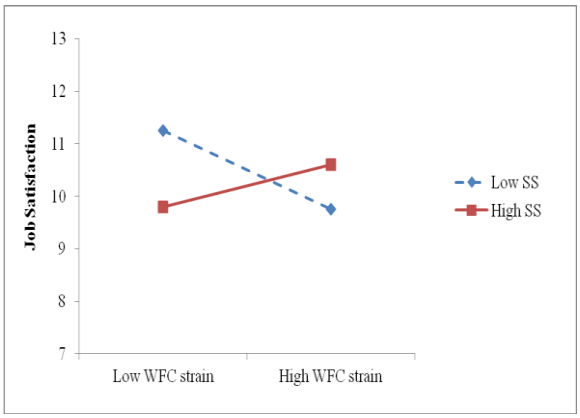

Figure 7.1: The moderating effect of support-seeking (SS) on the relationships between WFC strain and job satisfaction at Time 2

Even though it was not hypothesised, the simple slopes test in Figure 7.2 shows a significant negative relationship between WFC strain and job satisfaction among those who utilised low escape-avoidance (a type of emotion-focused coping), *t*(208) = -2.56, *p*<0.05 (only high escape-avoidance was hypothesised to moderate the relationship between WFC strain and job satisfaction). However, no relationship was found between WFC strain and job satisfaction when escape-avoidance was high, *t*(208) = 1.82, *ns*. Therefore, Hypothesis 15c(ii) that emotion-focused coping (i.e., escape-avoidance) would moderate the relationship between

WFC strain and job satisfaction when emotion-focused coping (i.e., escape-avoidance) was high was not supported.

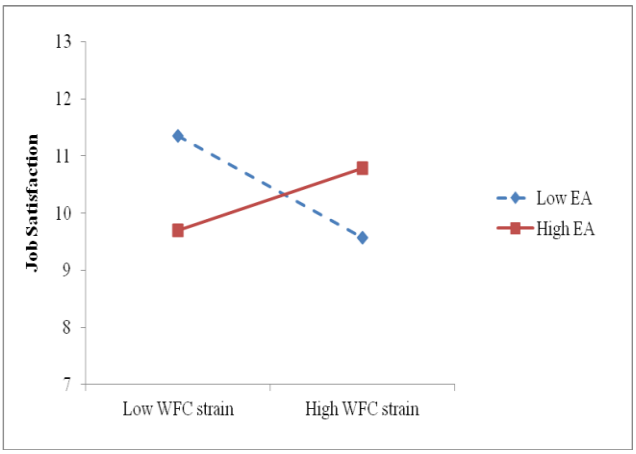

Figure 7.2: The moderating effect of escape-avoidance (EA) on the relationships between WFC strain and job satisfaction at Time 2

The simple slopes test in Figure 7.3 shows a significant negative relationship between FWC strain and job satisfaction among those who used high escape-avoidance (a type of emotion-focused coping), $t(208) = -2.19$, $p<0.05$ (contradicted to what was hypothesised).

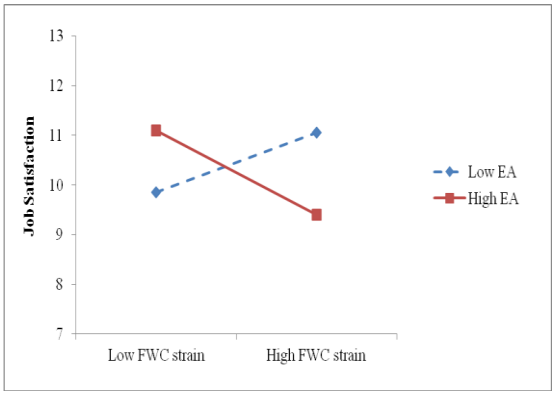

Figure 7.3: The moderating effect of escape-avoidance (EA) on the relationships between FWC strain and job satisfaction at Time 2

Additionally, even though it was not hypothesised, a significant positive relationship between FWC strain and job satisfaction was found among those who utilised low escape-avoidance, $t(208) = 2.04$ (only high escape-avoidance was hypothesised to moderate the relationship between FWC strain and job satisfaction). Hence, Hypothesis 15d(ii) that emotion-focused coping (i.e., escape-avoidance) would moderate the relationship between FWC strain and job satisfaction when emotion-focused coping (i.e., escape-avoidance) was high was not supported.

According to Figure 7.4, a significant negative relationship between WFC time and job satisfaction was found among those who utilised high WFF, $t(208) = -2.08$, $p<0.05$ (contradicted to what was hypothesised).

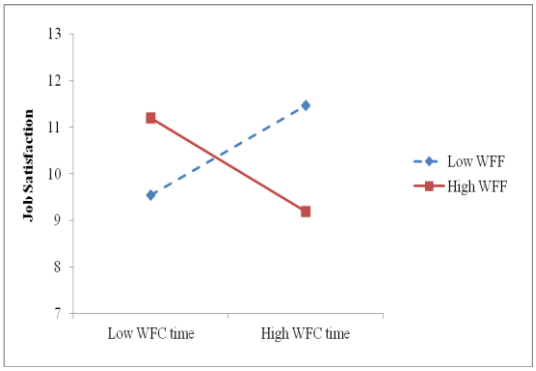

Figure 7.4: The moderating effect of WFF on the relationships between WFC time and job satisfaction at Time 2

Additionally, although it was not hypothesised, the simple slopes test in Figure 7.4 shows a significant positive relationship between WFC time and job satisfaction among those who used low WFF, $t(208) = 2.45$, (only high WFF was hypothesised to moderate the relationship between WFC time and job

satisfaction). Thus, Hypothesis 31a(i) that WFF would moderate the relationship between WFC time and job satisfaction when WFF was high was not supported.

Consistent with Hypothesis 31c(i), the simple slopes test in Figure 7.5 presents a positive relationship between WFC time and job satisfaction among those who used high FWF, $t(208) = 2.94$, $p<0.01$.

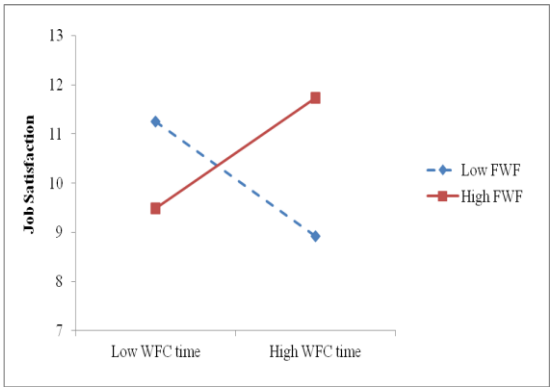

Figure 7.5: The moderating effect of FWF on the relationships between WFC time and job satisfaction at Time 2

Additionally, although it was not hypothesised, the simple slopes test in Figure 7.5 illustrates a significant negative relationship between WFC time and job satisfaction among those who used low FWF, $t(208) = -2.65$, $p<0.01$, (only high FWF was hypothesised to moderate the relationship between WFC time and job satisfaction).

Although it was not hypothesised, the simple slopes test in Figure 7.6 shows a significant positive relationship between FWC time and job satisfaction among those who used low FWF, $t(208) = 2.45$, $p<0.05$, (only high FWF was hypothesised to moderate the relationship between FWC time and job satisfaction). However, a significant negative relationship between FWC time and job satisfaction was found among those who utilised high FWF, FWC time, $t(208)$

= -2.08, $p<0.05$ (Figure 7.6) (contradicted to what was hypothesised). Therefore, Hypothesis 31d(i) that FWF would moderate the relationship between FWC time and job satisfaction when FWF was high was not supported.

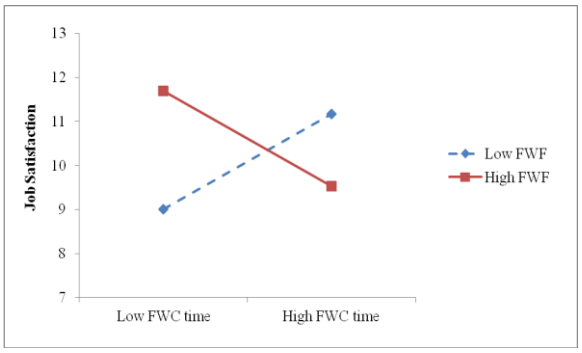

Figure 7.6: The moderating effect of FWF on the relationships between FWC time and job satisfaction at Time 2

Overall, out of six interactions plotted (Figure 7.1 to Figure 7.6), only one interaction (Figure 7.5) supported the hypothesis of the present study [H31c(i)].

Family satisfaction as the criterion variable at Time 2

The interaction terms entered in Step 4 explained 29% of the variance in family satisfaction at Time 2 (Table 7.4). However, the ΔR^2 in Step 4 was insignificant and therefore, no further analyses were required. The results fail to support Hypotheses 16 and 32 for family satisfaction at Time 2.

Life satisfaction as the criterion variable at Time 2

The interaction terms entered in Step 4 explained 15% of the variance in life satisfaction at Time 2 (Table 7.4). However, the ΔR^2 in Step 4 was

insignificant and therefore, no further analyses were required. The results fail to support Hypotheses 16 and 32 for life satisfaction at Time 2.

7.3 Multivariate analyses of mediating effects at Time 2

The mediating effects of work-family facilitation at Time 2 were analysed by using the same process as Time 1. A full mediation model was also applied for the mediation analysis at Time 2, in order to be consistent with Time 1 analysis. The fit indices of the models were measured by examining the ratio of chi-square to the degrees of freedom ($\chi^2/df < 3.00$), RMSEA (≤ 0.05), CFI (≥ 0.90), and RMR (≤ 0.12). According to Sivo and colleagues (2006), an optimal cut-off point of RMR ≤ 0.12 is suitable to be used with samples less than 250. Therefore, for Time 2 data, this RMR cut-off point was used to measure the goodness of fit for the structural equation modelling (SEM) models.

7.3.1 Analyses of the overall model

SEM analyses indicated that the overall full mediation model (without any modification) yielded a better goodness of fit to the data than the overall partial mediation model (before modification) at Time 2. Therefore, the full mediation model was chosen for further analyses in this study. Then, the mediating effects of WFF and FWF were tested separately by using the full mediation model. The overall full mediation model without any modification yielded a $\chi^2/df = 2.33$, RMR = 0.21, RMSEA = 0.08, and CFI = 0.73. The modification indices suggested that five additional direct paths from WFC strain to anxiety/depression, WFC behaviour to life satisfaction, FWC strain to social dysfunction, FWC strain to anxiety/depression, and FWC strain to intention to leave would improve the

model fit. All added pathways statistically improved the model fit and were logical, based on the underlying theories of the model.

After modification, the fit indices of the overall full mediation modified model at Time 2 were strengthened, indicating a reasonable fit to the data, with χ^2/df = 1.51, *RMR* = 0.07, *RMSEA* = 0.05, and *CFI* = 0.90. The value of chi-square difference ($\Delta\chi^2$ = 1359.40, p<0.001) showed substantial difference between the models (the overall full mediation models, before and after modification). The overall mediation model was decomposed into two; Model A with WFF as the mediator and Model B with FWF as the mediator. The mediation effects of WFF and FWF are discussed in the following sections.

7.3.2 Mediating effects of work-family facilitation at Time 2

Model A: WFF as a mediator at Time 2

The purpose of this analysis was to examine the direct, indirect, and total mediation effects of WFF with work-family conflict and the criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 2. Model A (Figure 7.7) yielded a χ^2/df = 2.64, RMR = 0.15, RMSEA = 0.08, and CFI = 0.69. The RMR, RMSEA, and CFI values for Model A at Time 2 (Figure 7.7) were not in the recommended range and hence, the modification indices were inspected. The modification indices suggested that seven additional direct paths from WFC behaviour to social dysfunction, WFC behaviour to anxiety/depression, WFC behaviour to intentions to leave, WFC behaviour to intentions to stay, WFC behaviour to job satisfaction, WFC behaviour to family satisfaction, and WFC behaviour to life satisfaction would improve the model fit.

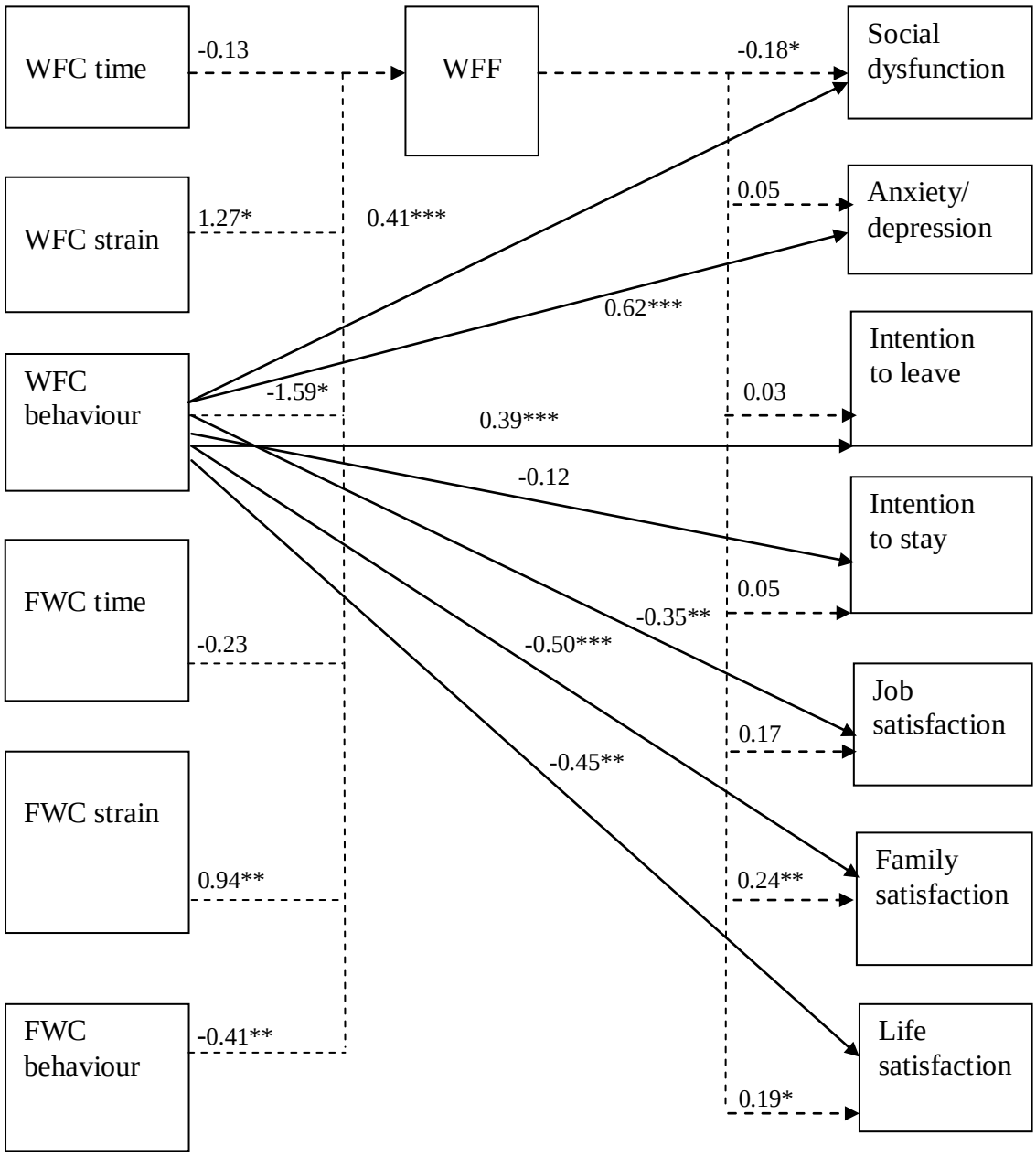

Figure 7.7: Modified Model A with standardised parameter estimates – WFF as a mediator at Time 2

Note: n = 740. ***p<0.001, **p<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour. - - ► indicates the effects of predictor - mediator - criterion variables. The → indicates the effects of predictor on criterion variables.

After modification, Model A at Time 2 yielded an acceptable fit to the data with lower χ^2/df (1.57), RMR (0.08), RMSEA (0.05), and higher CFI (0.90). The $\Delta\chi^2$ test between the models, before and after modification, demonstrated a significant difference ($\Delta\chi^2$ = 1279.29, p<0.001). Thus, the modified Model A was used for further analyses at Time 2. As suggested by Mathieu and Taylor (2006), the relationship between a mediator and a criterion variable needs to be significant as one of the conditions for a mediation to occur. Model A at Time 2 demonstrated that the relationship between WFF and anxiety/depression, WFF and intention to leave, WFF and intention to stay, and WFF and job satisfaction were not significant. Therefore, no further analyses were required for those criterion variables (anxiety/depression, intention to leave, intention to stay, and job satisfaction) at Time 2.

The main purpose of this analysis was to test the specific mediation effects of WFF in the relationships between work-family conflict and the criterion variables. Therefore, the direct, indirect, and total effects of WFF with work-family conflict and each criterion variables were examined and are presented in Table 7.5 to Table 7.7. Table 7.5 presents the direct, indirect, and total effects of WFF between work-family conflict and social dysfunction at Time 2. It was hypothesised that WFF would mediate the relationships between work-family conflict and social dysfunction at Time 2 (Hypothesis 39). Four out of six mediation paths (66.67%) were significant at Time 2. The results indicated that WFF fully mediated the relationships of WFC strain, FWC strain, and FWC behaviour with social dysfunction. In addition, WFF partially mediated the relationship of FWC behaviour and social dysfunction. The result provided some support for Hypothesis 39 for social dysfunction at Time 2. No other support was

found for the mediating effect of WFF between WFC and FWC time and social dysfunction at Time 2.

Table 7.5

Mediation effects of WFF, between work-family conflict and social dysfunction at Time 2

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → SD	0.00	0.02	0.02	None
WFC strain → WFF → SD	0.00	-0.23*	-0.23	Full
WFC behaviour → WFF → SD	1.15***	0.28*	1.43	Partial
FWC time → WFF → SD	0.00	0.04	0.04	None
FWC strain → WFF → SD	0.00	-0.17**	-0.17	Full
FWC behaviour → WFF → SD	0.00	0.07*	0.07	Full

Note: [a]n = 210. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and SD refers to social dysfunction.

According to Table 7.6, four out of six mediation effects (66.67%) of WFF on work-family conflict and family satisfaction were significant at Time 2. It was hypothesised that WFF would mediate the relationships between work-family conflict and family satisfaction at Time 2 (Hypothesis 42). The findings indicated that WFF fully mediated the relationships of WFC strain, FWC strain, and FWC behaviour with family satisfaction. Additionally, WFF partially mediated the relationship of WFC behaviour and family satisfaction. The result provided some support for Hypothesis 42 for family satisfaction at Time 2. No other support was found for the mediating effect of WFF between WFC and FWC time and family satisfaction at Time 2.

Table 7.6

Mediation effects of WFF, between work-family conflict and family satisfaction at Time 2

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → FS	0.00	-0.03	-0.03	None
WFC strain → WFF → FS	0.00	0.29*	0.29	Full
WFC behaviour → WFF → FS	-0.50***	-0.37*	-0.87	Partial
FWC time → WFF → FS	0.00	-0.06	-0.06	None
FWC strain → WFF → FS	0.00	0.22**	0.22	Full
FWC behaviour → WFF → FS	0.00	-0.10**	-0.10	Full

Note: [a]n = 210. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and FS refers to family satisfaction.

Table 7.7 presents the direct, indirect, and total mediation effects of WFF between work-family conflict and life satisfaction at Time 2. It was hypothesised that WFF would mediate the relationships between work-family conflict and life satisfaction at Time 2 (Hypothesis 43). Four out of six mediation paths (66.67%) tested were significant.

Table 7.7

Mediation effects of WFF, between work-family conflict and life satisfaction at Time 2

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → WFF → LS	0.00	-0.02	-0.02	None
WFC strain → WFF → LS	0.00	0.24*	0.24	Full
WFC behaviour → WFF → LS	-0.45**	-0.30*	-0.75	Partial
FWC time → WFF → LS	0.00	-0.04	-0.04	None
FWC strain → WFF → LS	0.00	0.18**	0.18	Full
FWC behaviour → WFF → LS	0.00	-0.08*	-0.08	Full

Note: [a]n = 210. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, WFF refers to work-to-family facilitation, and FS refers to life satisfaction.

Specifically, WFF fully mediated the relationships of WFC strain, FWC strain, and FWC behaviour with life satisfaction. WFF also partially mediated the relationship of WFC behaviour and life satisfaction. The result provided some supports for Hypothesis 43 for life satisfaction at Time 2. No other support was found for the mediating effect of WFF between WFC and FWC time and life satisfaction at Time 2.

To summarise, some support was found for the mediating effects of WFF between work-family conflict (WFC strain, WFC behaviour, FWC strain, and FWC behaviour) and social dysfunction, family satisfaction, and life satisfaction. No support was found for the mediating effects of WFF between work-family conflict and the other criterion variables (anxiety/depression, intention to leave, intention to stay, and job satisfaction) at Time 2.

Model B: FWF as a mediator at Time 2

The aim of these analyses is to determine the mediation effects of FWF between work-family conflict and strain at Time 2 as presented in Model B (Figure 7.8). Model B without any modification yielded a χ^2/df = 2.75, RMR = 0.15, RMSEA = 0.09, and CFI = 0.69. Therefore, the model was modified based on the modification indices provided. According to the modification indices, four new pathways would significantly improve the model fit of Model B at Time 2. Each added pathway significantly improved the model fit and was logical and made conceptual sense, given the underlying theory. The new added pathways were direct paths from FWC strain to social dysfunction, FWC strain to anxiety/depression, FWC strain to intention to leave, and FWC strain to job satisfaction.

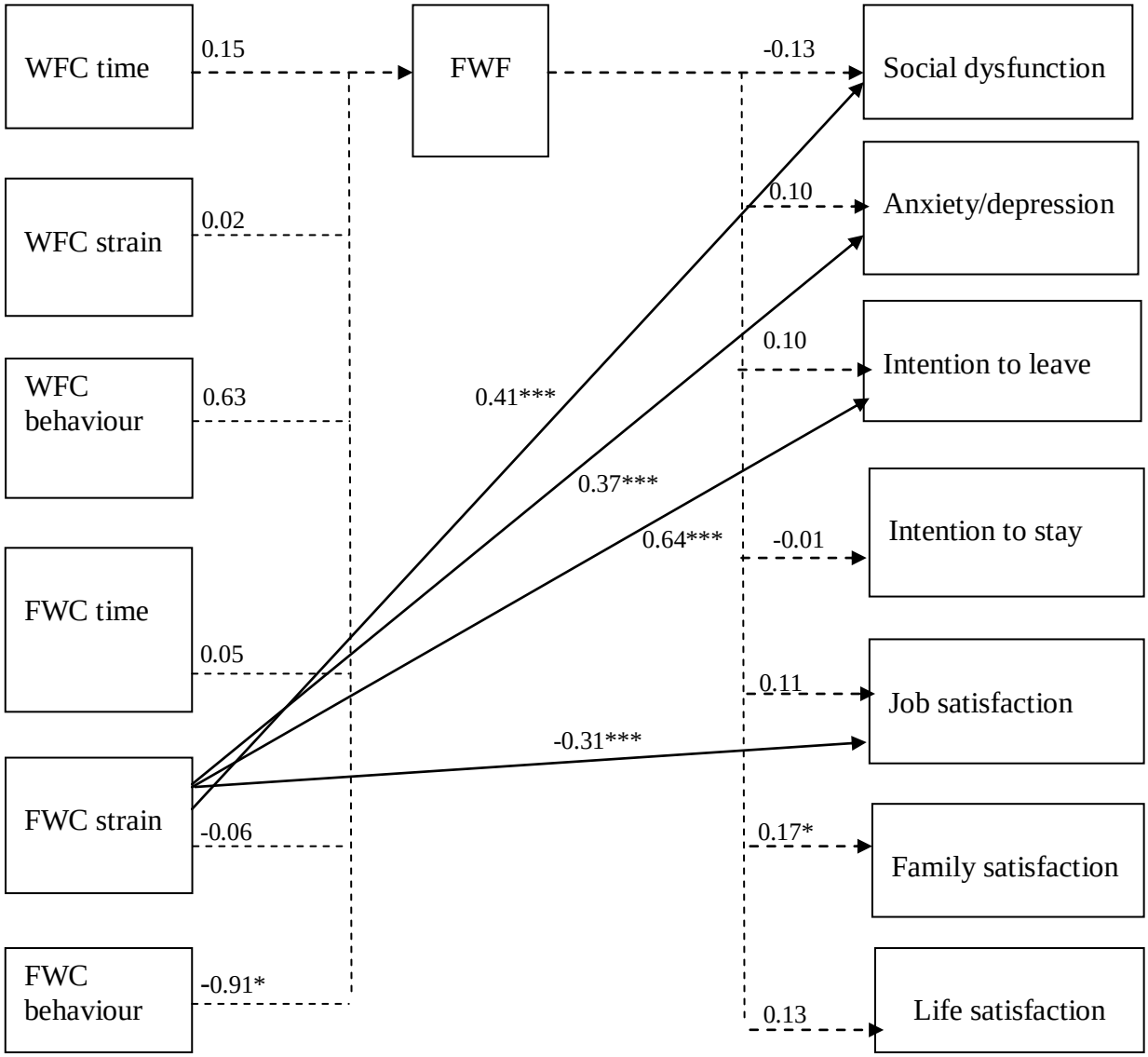

Figure 7.8: Modified Model B with standardised parameter estimates – FWF as a mediator at Time 2

Note: n = 740. ***p<0.001, **p<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour. ▬► indicates the effects of predictor - mediator - criterion variables. The → indicates the effects of predictor on criterion variables.

The modified Model B yielded a good fit to the data, with lower χ^2/df (1.63), lower RMR (0.10), lower RMSEA (0.05), and higher CFI (0.90). The $\Delta\chi^2$ test between the models, before and after modification, demonstrated significant difference ($\Delta\chi^2$ = 1325.62, p<0.001). Therefore, the modified Model B was used for further analyses at Time2. Model B at Time 2 demonstrated that the relationships of FWF with social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, and life satisfaction were not significant. Therefore, no further mediation analyses were required for those criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, and life satisfaction).

The main objective of this analysis was to test the specific mediation effects of FWF in the relationship between work-family conflict and family satisfaction as the criterion variable. Hence, the direct, indirect, and total effects of FWF with work-family conflict and family satisfaction were examined and presented in Table 7.8.

Table 7.8

Mediation effects of FWF, between work-family conflict and family satisfaction at Time 2

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
WFC time → FWF → FS	0.00	0.02	0.02	None
WFC strain → FWF → FS	0.00	0.00	0.00	None
WFC behaviour → FWF → FS	0.00	0.10	0.10	None
FWC time → FWF → FS	0.00	0.01	0.01	None
FWC strain → FWF → FS	0.00	-0.01	-0.01	None
FWC behaviour → FWF → FS	0.00	-0.15*	-0.15	Full

Note: [a]n = 210. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, FWF refers to family-to-work facilitation, and FS refers to family satisfaction

Table 7.8 presents the direct, indirect, and total effects of FWF between work-family conflict and family satisfaction at Time 2. It was hypothesised that FWF would mediate the relationships between work-family conflict and family satisfaction at Time 2 (Hypothesis 42). Out of six mediation paths, one was significant (16.67%). Specifically, FWF fully mediated the relationship of FWC behaviour and family satisfaction. Hence, Hypothesis 42 for family satisfaction at Time 2 was minimally supported. No other support was found for the mediating effect of FWF between work-family conflict and family satisfaction at Time 2.

To conclude, little support was found for the mediating effects of FWF between work-family conflict and family satisfaction at Time 2. No support was found for the mediating effects of WFF between work-family conflict and other criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, and life satisfaction) at Time 2.

Chapter Summary

In summary, some support was found for the correlation between certain types of work-family conflict and social dysfunction, anxiety/depression, intentions to leave, job satisfaction, family satisfaction, and life satisfaction at Time 2. No significant correlation was found between any type of work-family conflict and intentions to stay. Little support was found for the correlation between coping and work-family facilitation with criterion variables. Specifically, planful problem-solving and support-seeking were significantly related to social dysfunction and anxiety/depression, while escape-avoidance and positive reappraisal were only correlated with social dysfunction. In addition, WFF was only correlated with family satisfaction at Time 2. No support was found between

the other types of coping and work-family facilitation with other criterion variables.

Very few supports were found for the direct effect of work-family conflict on criterion variables at Time 2. As expected, positive reappraisal was negatively related to social/dysfunction and WFC strain was negatively related to family satisfaction at Time 2. On the other hand, FWC strain was positively related to anxiety/depression and planful problem-solving was positively related to life satisfaction. However surprisingly, escape-avoidance and anxiety/depression was related in the opposite direction than that hypothesised at Time 2.

Minimal support was found for the moderation effects of coping and work-family facilitation on work-family conflict and the criterion variables at Time 2. The results indicated that FWF moderated the relationships between WFC time and job satisfaction at Time 2. The other interactions plotted did not support the hypotheses of the present study.

As for the mediating effects of WFF and FWF on work-family conflict and the criterion variables, some support was found at Time 2. WFF fully mediated the relationships of WFC strain and FWC (strain and behaviour) with social dysfunction, family satisfaction, and life satisfaction at Time 2. WFF also partially mediated the relationship of WFC behaviour and social dysfunction, family satisfaction, and life satisfaction at Time 2. Besides, FWF fully mediated the relationships of FWC behaviour and family satisfaction at Time 2. No other mediating effects of work-family facilitation on the relationships between the other types of work-family conflict and criterion variables were found. In the following chapter (Chapter 8), the longitudinal results are discussed.

CHAPTER 8

LONGITUDINAL RESULTS

Chapter Overview

The aim of this chapter is to report the longitudinal relationships of predictors at Time 1 (work-family conflict dimensions) and criterion variables at Time 2 (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction). The longitudinal moderating effects of coping and work-family facilitation were also examined. In addition, the mediating roles of work-family facilitation in the relationships between work-family conflict and the criterion variables over time were investigated. The chapter is divided into three main sections: (a) descriptive statistics and correlations, (b) multivariate analyses of longitudinal direct and moderation effects using hierarchical regression, and (c) longitudinal mediation analyses using structural equation modelling.

8.1 Descriptive statistics and correlations (longitudinal)

Table 8.1 presents the means, standard deviations, and paired samples *t-tests* between variables at Time 1 and Time 2. Paired samples *t-tests* were used to examine the stability of variables over time; that is, whether or not the variables under study had changed at Time 2 compared to Time 1. The results in Table 8.1 indicate that Time 1 and Time 2 samples were comparable.

Table 8.1

Paired samples t-test between all variables at Time 1 and Time 2

Variables	Time 1		Time 2		Paired samples	η^2
	Mean	SD	Mean	SD	*t-test*	
WFC (time)	7.54	2.58	7.56	2.51	-1.12	0.01
WFC conflict (strain)	8.21	2.55	7.95	2.53	1.14	0.01
WFC (behaviour)	7.36	2.20	7.47	2.28	0.62	0.01
FWC (time)	6.72	1.98	6.63	1.84	1.78	0.01
FWC (strain)	6.81	2.06	6.68	2.14	0.79	0.04
FWC (behaviour)	7.30	2.29	7.24	2.22	1.96	0.01
Planful problem-solving	12.22	1.87	12.08	1.68	2.42	0.01
Support-seeking	10.83	3.01	10.80	2.96	0.65	0.01
Escape-avoidance	10.13	2.37	10.33	2.19	-1.00	0.01
Positive reappraisal	12.11	2.10	12.25	1.80	-0.89	0.01
Work-to-family facilitation	34.12	6.21	31.26	4.90	-8.04*	0.02
Family-to-work facilitation	34.32	6.38	31.60	5.04	-8.99*	0.06
Social dysfunction	11.71	3.22	11.82	3.56	-0.39	0.03
Anxiety/depression	8.62	2.97	8.29	2.90	1.67	0.01
Intention to leave	4.57	2.21	4.29	2.12	3.71*	0.01
Intention to stay	7.25	2.41	7.52	2.25	-2.03	0.01
Job satisfaction	11.67	1.97	11.80	2.04	-2.39	0.01
Family satisfaction	11.64	2.00	11.65	2.13	0.89	0.01
Life satisfaction	15.09	2.70	15.33	2.86	-0.08	0.01

Note: Time 1, $N = 740$; Time 2, $N = 210$, * $p < 0.001$; *S.D.* = standard deviations; WFC = work-to-family conflict, FWC = family-to-work conflict.

The results (Table 8.1) shows that the mean scores of work-to-family facilitation (WFF), family-to-work facilitation (FWF), and intentions to leave, at Time 2 were significantly different from the mean scores of the same measures at Time 1. Specifically, the mean scores for WFF decreased significantly from Time 1 ($M = 34.12$) to Time 2 ($M = 31.26$). Similarly, the mean scores for FWF

decreased significantly from Time 1 (M = 34.32) to Time 2 (M = 31.60). On the other hand, the mean score for intentions to leave increased significantly from Time 1 (M = 7.25) to Time 2 (M = 7.52). Eta squared (η^2) was used to estimate the effect size (Tabachnik & Fidell, 2007). According to Cohen (1988), η^2 = 0.01 refers to a small effect size, η^2 = 0.09 refers to medium effect size, and η^2 = 0.25 refers to large effect size. The effect size in this study ranged from small ($\eta 2$ = 0.01) to medium ($\eta 2$ = 0.20), which are common in non-experimental psychology areas (Tabachnik & Fidell, 2007).

Table 8.2 presents the correlations between all variables at Time 1 and Time 2. In general, the correlations were relatively low. The measures at Time 1 were correlated with the measures at Time 2 in the expected directions. All work-family conflict measures (WFC and FWC time, strain, and behaviour) at Time 1 were significantly negatively correlated with family and life satisfaction at Time 2. In addition, WFC (strain and behaviour) and FWC (time, strain, and behaviour) at Time 1 were significantly positively related to anxiety/depression at Time 2. Both FWC strain and behaviour at Time 1 were significantly positively related to intention to leave at Time 2. FWC strain at Time 1 was significantly positively correlated with social dysfunction at Time 2. No significant correlation was found between any of the work-family conflict measure at Time 1 and intention to stay and job satisfaction at Time 2.

Of all the coping measures, only planful problem-solving at Time 1 was significantly negatively related to anxiety/depression at Time 2, but not with the other criterion variables. Support-seeking at Time 1 was significantly negatively correlated with social dysfunction at Time 2, but not with other criterion variables.

Table 8.2.

Longitudinal correlations of predictors and criterion variables

	Variables (Time 2)								
Variables (Time 1)	WFC time	WFC strain	WFC behaviour	FWC time	FWC strain	FWC behaviour	PPS	SS	EA
WFC time	0.44*	0.45*	0.27*	0.38*	0.27*	0.24*	-0.04	-0.04	0.03
WFC strain	0.27*	0.54*	0.24*	0.34*	0.40*	0.21*	-0.11	-1.41	-0.02
WFC behaviour	0.19*	0.41*	0.41*	0.36*	0.24*	0.39*	-0.09	-0.10	0.13
FWC time	0.27*	0.43*	0.27*	0.49*	0.38*	0.27*	-0.17	-0.04	0.06
FWC strain	0.23*	0.37*	0.22*	0.35*	0.46*	0.20*	-0.13	-0.07	0.02
FWC behaviour	0.18*	0.37*	0.38*	0.30*	0.26*	0.40*	-0.15	-0.09	0.06
PPS	-0.05	-0.13	-0.14	-0.06	-0.18*	-0.15	0.47*	0.31*	0.07
Support-seeking	-0.09	-0.17	-0.15	-0.02	-0.18*	-0.11	0.25*	0.54*	0.08
Escape-avoidance	-0.01	-0.05	0.04	-0.05	0.11	-0.02	0.09	0.05	0.46*
Positive reappraisal	-0.03	-0.07	-0.03	-0.06	-0.02	-0.08	0.20*	0.18	0.31*
WFF	-0.04	-0.02	-0.16	0.03	0.00	-0.20*	0.24*	0.29*	0.15
FWF	0.10	-0.01	-0.13	0.01	-0.02	-0.18*	0.52*	0.26*	0.16
Social Dysfunction	0.12	0.32*	0.21*	0.20*	0.22*	0.29*	-0.30*	-0.30*	-0.23*
Anxiety/Depression	0.05	0.25*	0.10	0.09	0.22*	0.07	-0.18*	-0.12	0.14
Intentions to leave	0.08	0.30*	0.17	0.20*	0.20*	0.19*	-0.07	-0.13	-0.02
Intentions to stay	-0.01	-0.19*	0.00	-0.14	-0.05	-0.08	0.06	-0.04	0.19*
Job Satisfaction	-0.23*	-0.38*	-0.27*	-0.26*	-0.26*	-0.24*	0.17	0.16	0.05
Family Satisfaction	-0.09	-0.29*	-0.27*	-0.23*	-0.18*	-0.24*	0.21*	0.19*	-0.05
Life Satisfaction	-0.14	-0.32*	-0.26*	-0.25*	-0.16	-0.24*	0.29*	0.27*	0.07

Table 8.2.

(continued).

	Variables (Time 2)									
Variables (Time 1)	PR	WFF	FWF	SD	AD	ITL	ITS	JS	FS	LS
WFC time	0.00	0.01	0.11	-0.01	0.17	0.14	-0.01	-0.14	-0.20*	-0.18*
WFC strain	-0.10	-0.11	-0.10	0.16	0.24*	0.17	-0.08	-0.19*	-0.32*	-0.26*
WFC behaviour	-0.01	-0.25	-0.19*	0.09	0.18*	0.14	0.02	-0.16	-0.32*	-0.27*
FWC time	-0.04	-0.10	-0.11	0.16	0.21*	0.16	-0.01	-0.17	-0.25*	-0.19*
FWC strain	-0.11	-0.08	-0.08	0.20*	0.24*	0.18*	-0.00	-0.16	-0.26*	-0.19*
FWC behaviour	-0.05	-0.30*	-0.24*	0.13	0.18*	0.18*	-0.07	-0.17	-0.26*	-0.24*
PPS	0.19*	0.19*	0.20*	-0.17	-0.23*	-0.08	0.01	0.08	0.16	0.16
Support-seeking	0.14	0.18*	0.21*	-0.19*	-0.15	-0.09	-0.02	0.07	0.07	0.10
Escape-avoidance	0.30*	0.26*	0.24*	-0.08	0.02	-0.03	0.01	0.08	0.03	0.03
Positive reappraisal	0.50*	0.32*	0.33*	-0.15	-0.05	-0.04	0.05	0.15	0.10	0.13
WFF	0.37*	0.53*	0.53*	-0.15	-0.03	0.03	0.11	0.15	0.21*	0.16
FWF	0.36*	0.46*	0.46*	-0.11	-0.06	0.01	0.15	0.13	0.11	0.09
Social Dysfunction	-0.27*	-0.35*	-0.37*	0.33*	0.26*	0.08	0.03	-0.19*	-0.33*	-0.33*
Anxiety/Depression	-0.07	-0.07	-0.07	0.12	0.52*	0.14	-0.13	-0.16	-0.17	-0.18*
Intentions to leave	-0.09	-0.15	-0.11	-0.01	0.13*	0.57*	-0.15	-0.29*	-0.17	-0.19*
Intentions to stay	0.19*	0.15	0.14	0.03	0.00	-0.21*	0.35*	0.21*	0.00	0.01
Job Satisfaction	0.23*	0.30*	0.25*	-0.11	-0.28*	-3.10*	0.10	0.46*	0.41*	0.41*
Family Satisfaction	0.11	0.19*	0.18*	-0.23*	-0.17	-0.05	0.08	0.26*	0.50*	0.45*
Life Satisfaction	0.23*	0.27*	0.25*	-0.18*	-0.21*	-0.12	0.19	0.34*	0.44*	0.49*

Note: Time 1, $N = 740$; Time 2, $N = 210$, * $p < 0.01$; WFC = work-to-family conflict, FWC = family-to-work conflict, PPS = planful problem-solving, WFF = work-to-family facilitation, and FWF = family-to-work facilitation.

There was no significant relationship between escape-avoidance and positive reappraisal at Time 1 and any criterion variable at Time 2. In addition, work-to family facilitation (WFF) at Time 1 was significantly positively correlated with family satisfaction at Time 2, but no significant relationship was found between WFF and other criterion variables. On the other hand, family-to-work facilitation (FWF) at Time 1 was not related to any criterion variable at Time 2. In conclusion, most of the correlations between predictors at Time 1 and criterion variables at Time 2 were not significant. Next, hierarchical regression analyses of all predictors and moderators on the criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) were conducted to examine the moderating effects.

8.2 Multivariate analyses of main and moderating effects (longitudinal)

This section presents the results of main and moderating effects over time. The longitudinal main effects of Time 1 work-family conflict, coping, and work-family facilitation on Time 2 criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) were examined. In addition, the potential longitudinal moderating effects of Time 1 coping and work-family facilitation in the relationship between Time 1 work-family conflict and Time 2 criterion variables were also tested.

As in the previous analyses (Time 1 and Time 2), hierarchical multiple regressions were conducted to test the longitudinal main and moderating

hypotheses. As suggested by Finkel (1995), the time-effect method was applied, in which predictors at Time 1 were proposed to have effects on criterion variables at Time 2 while controlling for the criterion variables at Time 1. By regressing each of the criterion variables (Time 2) separately on the predictors (Time 1), while controlling for Time 1 criterion variables, the potential for the confound effects of the component measures might be reduced and the reliability related to the simple change scores could be avoided (Bergh & Fairbank, 2002).

A series of hierarchical moderated regression analyses was performed to examine the longitudinal interaction effects of coping and work-family facilitation on the relationships between work-family conflict and all criterion variables. The longitudinal moderation analyses were examined by using the time-effect method illustrated in Figure 8.1.

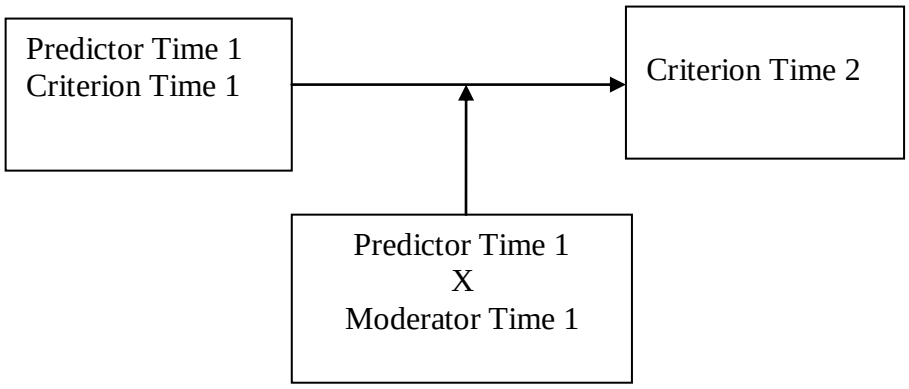

Figure 8.1: Analytical approach for longitudinal moderating effect

The predictors and moderators at Time 1 were used to predict the criterion variables at Time 2, while controlling for the criterion variables at Time 1. Similar to previous analyses (Time 1 and Time 2), centered scores were used for all predictors, moderators, and cross-product interaction terms. Specifically, in Step 1 of the regression analysis, the criterion variable at Time 1 was entered to control

the initial level of that criterion variable. In Step 2, the demographic variables (age, organisational tenure, job tenure, and types of organisation) were entered to control for any possible confounding effect.

In Step 3, negative affectivity variables were entered as another set of control variable because the variables were significantly correlated with all criterion variables at Times 1 and 2. Negative affectivity were controlled separately because the researcher was only interested to look at the relationships of NA (fear) and NA (distress) with the criterion variables, not the beta values of the demographic variables on each criterion variable.

In step 4, WFC and FWC (time, strain, and behaviour), coping (planful problem solving, support seeking, positive reappraisal, and escape-avoidance), and work-family facilitation (WFF and FWF) at Time 1 were entered to examine the main effects of Time 1 predictors on Time 2 criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction). In Step 5, the interaction terms between work-family conflict and coping and between work-family conflict and work-family facilitation at Time 1 were entered to test the longitudinal moderating effects of coping and work-family facilitation. Separate regression analyses were conducted for each criterion variable at Time 2.

8.2.1 Longitudinal direct effects

This section presents the longitudinal direct effects of all predictors on the criterion variables. The longitudinal moderating effects of coping and work-family facilitation will be discussed in the next section (Section 8.2.2).

Social dysfunction as the criterion variable (longitudinal)

Table 8.3 displays the results of longitudinal hierarchical regression analyses of predictor variables on social dysfunction and anxiety/depression. In Step 1, social dysfunction at Time 1 explained 12% of the variance in social dysfunction at Time 2. In Step 2, demographic variables accounted for 5% of the variance in social dysfunction over time. In Step 3, negative affectivity at Time 1 explained 1% of the variance in social dysfunction at Time 2. In Step 4, all predictors at Time 1 together accounted for 7% of the total variance in social dysfunction at Time 2. No support was found for the direct effects of all predictors on social dysfunction over time. Hence, Hypotheses 2, 8, and 24 for longitudinal direct effects of all predictors on social dysfunction were not supported.

Anxiety/depression as the criterion variable (longitudinal)

In Step 1, anxiety/depression at Time 1 explained 28% of the variance in anxiety/depression at Time 2. Demographic variables entered in Step 2 accounted for 3% of the total variance in anxiety/depression at Time 2. In Step 3, negative affectivity at Time 1 explained 1% of the variance in anxiety/depression at Time 2. In Step 4, all predictor variables at Time 1 accounted for 3% of the variance in anxiety/depression at Time 2. The findings indicated that none of the longitudinal direct effect of the predictors on anxiety/depression was significant. Therefore, Hypotheses 2, 8, and 24 for longitudinal direct effects of the predictors on anxiety/depression were not supported.

Table 8.3

Longitudinal hierarchical regression of social dysfunction and anxiety/depression on work-family conflict, coping, and work-family facilitation

Variables (n = 210)	Social dysfunction ΔR^2	β	Anxiety/ depression ΔR^2	β
Step 1	0.12***		0.28***	
Criterion at Time 1		0.35***		0.53***
Step 2	0.05		0.03	
Step 3	0.01		0.01	
Step 4	0.07		0.03	
Step 5	0.17		0.12	

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation. β values in Steps 2, 3, 4, and 5 for social dysfunction and anxiety/depression were not included in the table because the ΔR^2 values were not significant.

Intention to leave as the criterion variable (longitudinal)

Table 8.4 shows the results of longitudinal hierarchical regression of intention to leave, intention to stay, and job satisfaction on work-family conflict, coping, and work-family facilitation. In Step 1, intention to leave at Time 1 accounted for 32% of the total variance in intention to leave at Time 2. The demographic variables entered in Step 2 explained 3% of the total variance in intentions to leave at Time 2. In Step 3, negative affectivity at Time 1 accounted for 1% of the total variance in intention to leave at Time 2. In Step 4, the predictors at Time 1 explained for 3% of the variance in intention to leave at Time 2. The findings indicated that none of the longitudinal direct effect of the predictors on intention to leave was significant. Hence, Hypotheses 4, 10, and 26 for the longitudinal direct effects of the predictors on intention to leave were not supported.

Table 8.4

Longitudinal hierarchical regression of intention to leave, intention to stay, and job satisfaction on work-family conflict, coping, and work-family facilitation

Variables	Intention to leave		Intention to stay		Job satisfaction	
(n = 210)	ΔR^2	β	ΔR^2	β	ΔR^2	β
Step 1	0.32***		0.12***		0.21***	
Criterion at Time 1		0.57***		0.35***		0.46***
Step 2	0.03		0.07		0.02	
Step 3	0.01		0.03*		0.01	
NA (fear)		0.01		0.19*		0.07
NA (distress)		0.01		-0.20*		-0.15
Step 4	0.03		0.03		0.02	
Step 5	0.13		0.21***		0.16	
WFC time X PPS		-0.02		-0.13		-0.13
WFC strain X PPS		-0.06		0.28*		0.19
WFC behaviour X PPS		-0.05		-0.17		0.05
FWC time X PPS		-0.05		0.09		0.02
FWC strain X PPS		0.05		0.11		0.11
FWC behaviour X PPS		0.21		-0.27*		-0.18
WFC time X SS		0.05		0.18		0.10
WFC strain X SS		-0.10		-0.10		-0.03
WFC behaviour X SS		0.21		-0.29		-0.24
FWC time X SS		-0.08		0.11		0.03
FWC strain X SS		0.02		0.21		0.14
FWC behaviour X SS		-0.11		0.25		0.20
WFC time X EA		0.03		-0.05		-0.07
WFC strain X EA		0.04		0.07		0.04
WFC behaviour X EA		0.22		-0.12		0.15
FWC time X EA		-0.06		0.11		-0.05
FWC strain X EA		-0.22		0.17		0.12
FWC behaviour X EA		-0.14		-0.13		-0.06
WFC time X PR		0.00		0.11		0.14
WFC strain X PR		0.02		-0.18		-0.20
WFC behaviour X PR		-0.13		0.15		0.00
FWC time X PR		0.16		-0.24		-0.07
FWC strain X PR		-0.01		-0.10		-0.05
FWC behaviour X PR		0.11		0.21		-0.00
WFC time X WFF		0.09		0.10		-0.12
WFC strain X WFF		0.04		-0.24		-0.10
WFC behaviour X WFF		0.10		0.27		0.12
FWC time X WFF		0.07		-0.03		-0.26
FWC strain X WFF		-0.22		-0.01		0.18
FWC behaviour X WFF		-0.02		-0.24		-0.31
WFC time X FWF		-0.19		0.10		0.19
WFC strain X FWF		-0.00		0.18		-0.03
WFC behaviour X FWF		-0.13		-0.32		-0.04
FWC time X FWF		0.10		-0.07		0.17
FWC strain X FWF		0.02		0.07		0.16
FWC behaviour X FWF		0.07		0.37		0.19

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation. β values in Steps 2 and 4 for intention to leave, intention to stay, and job satisfaction were not included in the table because the ΔR^2 values were not significant.

Intention to stay as the criterion variable (longitudinal)

The longitudinal regression analysis for intentions to stay is showed in Table 8.4. In Step 1, intention to stay at Time 1 accounted for 12% of the variance in intention to stay at Time 2. Demographic variables entered in Step 2 explained 7% of the variance in intention to stay at Time 2. In Step 3, negative affectivity at Time 1 accounted for 3% of the variance in intention to stay at Time 2. Specifically, high NA (distress) was related to low intention to stay (β = -0.20, p<0.05). However surprisingly, high NA (fear) was related to high intentions to stay (β = 0.19, p<0.05). In Step 4, predictor variables at Time 1 explained 3% of the variance in intention at Time 2. The findings indicated that none of the longitudinal direct effect of the predictors on intention to stay was significant. Therefore, Hypothesis 4, 10, and 26 for the direct effects of the predictors on intentions to stay over time were not supported.

Job satisfaction as the criterion variable (longitudinal)

The longitudinal regression analysis for job satisfaction is presented in Table 8.4. In Step 1, job satisfaction at Time 1 explained 21% of the variance in job satisfaction at Time 2. Demographic variables entered in Step 2 accounted for 2% of the total variance at Time 2. In Step 3, negative affectivity at Time 1 explained 1% of the variance in job satisfaction at Time 2. In Step 4, predictor variables at Time 1 accounted for 2% of the variance in job satisfaction at Time 2. The findings indicated that none of the longitudinal direct effect of the predictors on job satisfaction was significant. Hence, the results failed to support Hypotheses 4, 10, 26 for the direct effects of the predictors on job satisfaction over time.

Family satisfaction as the criterion variable (longitudinal)

Table 8.5 presents the longitudinal hierarchical regression of family satisfaction and life satisfaction on work-family conflict, coping, and work-family facilitation. In Step 1, family satisfaction at Time 1 accounted for 25% of the variance in family satisfaction at Time 2. Demographic variables entered in Step 2 explained 4% of the variance in family satisfaction at Time 2.

Table 8.5

Longitudinal hierarchical regression of family and life satisfaction on work-family conflict, coping, and work-family facilitation

Variables (n = 210)	Family satisfaction ΔR^2	Family satisfaction β	Life satisfaction ΔR^2	Life satisfaction B
Step 1	0.25***		0.24***	
Criterion at Time 1		0.50***		0.49***
Step 2	0.04		0.03	
Step 3	0.01		0.01	
Step 4	0.10**		0.06	
WFC time		-0.08		-0.06
WFC strain		-0.13		-0.13
WFC behaviour		-0.01		0.00
FWC time		-0.02		0.01
FWC strain		-0.04		-0.04
FWC behaviour		-0.07		-0.05
Planful problem-solving		0.05		0.07
Support-seeking		-0.10		-0.08
Escape-avoidance		-0.05		-0.08
Positive reappraisal		0.04		0.07
WFF		0.42***		0.30
FWF		-0.26*		-0.24
Step 5	0.08		0.11	

Note: *p< 0.05, **p<0.01, ***p<0.001; NA = negative affectivity, WFC = work-to-family conflict, FWC = family-to-work conflict, WFF = work-to-family facilitation, and FWF = family-to-work facilitation. β values in Steps 2, 3, and 5 for family and life satisfaction were not included in the table because the ΔR^2 values were not significant.

In Step 3, negative affectivity at Time 1 accounted for 1% of the variance in family satisfaction at Time 2. In Step 4, Time 1 predictors explained 10% of the variance in family satisfaction at Time 2. Specifically, work-to-family facilitation

(WFF) at Time 1 was significantly positively (β = 0.42, p<0.001) related to family satisfaction at Time 2. However surprisingly, family-to-work facilitation (FWF) at Time 1 was significantly negatively (β = -0.26, p<0.05) related to family satisfaction at Time 2. These results supported Hypothesis 27a but contradicted Hypothesis 27b for the longitudinal main effects of work-family facilitation on family satisfaction over time. No other support was found for the relationship between the other Time 1 predictor variables and family satisfaction at Time 2.

Life satisfaction as the criterion variable (longitudinal)

In Step 1, life satisfaction at Time 1 explained 24% of the variance in life satisfaction at Time 2. Demographic variables entered in Step 2 explained 3% of the total variance in life satisfaction at Time 2. In Step 3, negative affectivity at Time 1 accounted for 1% of the variance in life satisfaction at Time 2. In Step 4, all predictor variables at Time 1 explained 6% of the variance in life satisfaction at Time 2. The findings indicated that none of the longitudinal direct effect of the predictors on life satisfaction was significant. Thus, the results fail to support Hypotheses 6, 12, 27 for the main effects of the predictors on life satisfaction over time.

8.2.2 Longitudinal moderating effects

Social dysfunction as the criterion variable (longitudinal)

The longitudinal moderating effects of coping and work-family facilitation were also examined in this study. The interaction terms between Time 1 predictors and Time 1 moderators entered in Step 5 explained 12% of the total variance in social dysfunction at Time 2 (Table 8.3). The findings indicated that

none of the longitudinal moderating effect of coping and work-family facilitation on social dysfunction was significant. Thus, the longitudinal moderating hypotheses for psychological strain (i.e., social dysfunction) (Hypotheses 18 and 34) were not supported.

Anxiety/depression as the criterion variable (longitudinal)

The interaction terms of Time 1 predictors and Time 1 moderators accounted for 28% of the variance of anxiety/depression at Time 2 (Table 8.3). The findings indicated that none of the longitudinal moderating effect of coping and work-family facilitation on anxiety/depression was significant. Thus, Hypotheses 18 and 34 for psychological strain (i.e., anxiety/depression) over time were not supported.

Intention to leave as the criterion variable (longitudinal)

The interaction terms of Time 1 predictors and Time 1 moderators entered in Step 5 explained 13% of the variance in intentions to leave at Time 2 (Table 8.4). The findings indicated that none of the longitudinal moderating effect of coping and work-family facilitation on intention to leave was significant. The results failed to support Hypotheses 19 and 35 for intention to leave over time.

Intention to stay as the criterion variable (longitudinal)

Next, the interaction terms of Time 1 predictors and Time 1 moderators entered in Step 5 accounted for 21% of the total variance in intention to stay at Time 2 (Table 8.4). Two out of 36 (5.56%) moderating effects of coping and work-family facilitation on the relationships between work-family conflict and

intention to stay were significant. Specifically, as hypothesised, planful problem-solving at Time 1 moderated the relationships between WFC strain at Time 1 and intention to stay at Time 2 (β = 0.28, p<0.05).

In contrast, planful problem-solving at Time 1 moderated the relationship between FWC behaviour at time 1 and intention to stay at Time 2 in the opposite direction than that hypothesised (β = -0.27, p<0.05). No support was found for other moderators in relation to work-family conflict and intention to stay over time. The interaction terms of the significant moderating effects were plotted using the simple effects equations (Aiken & West, 1991) with minimum and maximum mean values of the moderators. The simple slopes tests were then conducted to examine the interaction effects between the predictors and moderators (Aiken & West, 1991).

The simple slopes test in Figure 8.2 illustrates a negative relationship between WFC strain at Time 1 and intention to stay at Time 2 among those who used low planful problem-solving at Time 1. Although the negative relationship between WFC strain and intention to stay was significant among those who utilised low planful problem-solving, t(738) = -2.67, p<0.001, this interaction was not hypothesised (only high planful problem-solving was predicted to moderate the relationship between WFC strain and intention to stay). However, there was no significant relationship between WFC strain and intention to stay among those who utilised high planful problem-solving, t(208) = 1.76, *ns*. Therefore, Hypothesis 19a(ii) that planful problem-solving would moderate the relationship between WFC strain and intention to stay when planful problem-solving was high was not supported.

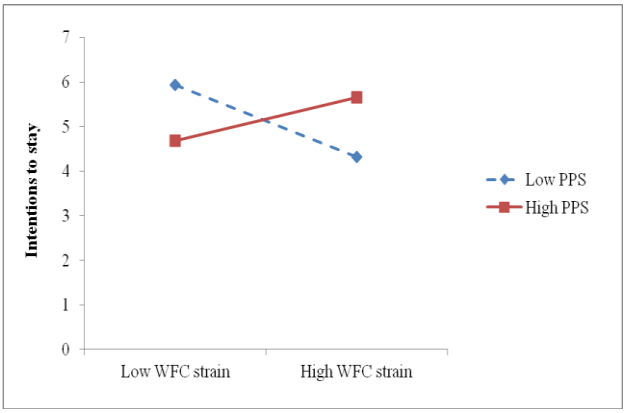

Figure 8.2: The moderating effect of planful problem-solving (PPS) on the relationship between WFC strain and intention to stay over time

In contrast to Hypothesis 19b(iii) which assumed that high planful problem-solving would moderate the relationship between FWC behaviour and intention to stay, a significant negative relationship between FWC behaviour and intention to stay was found among those who utilised high planful problem-solving, t (208) = -2.20, p<0.05 (Figure 8.3). However, there was no significant relationship between FWC behaviour and intention to stay among those who utilised low planful problem-solving, t(208) = 1.72, *ns*.

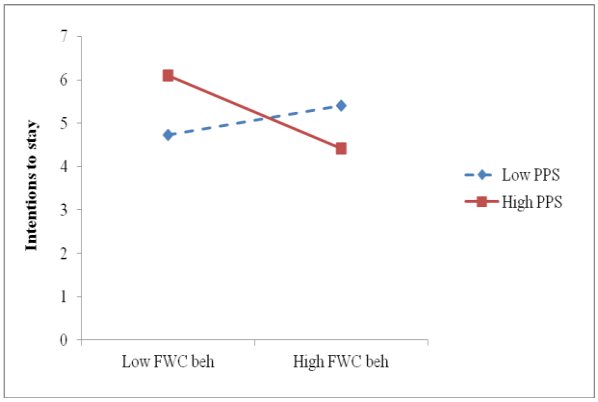

Figure 8.3: The moderating effect of planful problem-solving (PPS) on the relationship between FWC behaviour and intentions to stay over time

Therefore, Hypothesis 19b(iii) that planful problem-solving would moderate the relationship between FWC behaviour and intention to stay when planful problem-solving was high was not supported.

Overall, both interactions plotted in Figure 8.2 and Figure 8.3 did not support the hypotheses [H19a(ii) and H19b(iii)] in the present study.

Job satisfaction as the criterion variable (longitudinal)

In Step 5, the Time 1 interaction terms explained 16% of the total variance of job satisfaction at Time 2 (Table 8.4). The findings indicated that none of the longitudinal moderating effect of coping and work-family facilitation on job satisfaction was significant. Thus, the results failed to support Hypotheses 20 and 36 for job satisfaction over time.

Family satisfaction as the criterion variable (longitudinal)

The Time 1 interaction terms entered in Step 5 accounted for 8% of the variance in family satisfaction at Time 2 (Table 8.5). The findings indicated that none of the longitudinal moderating effect of coping and work-family facilitation on family satisfaction was significant. Therefore, the longitudinal moderating hypotheses for family satisfaction (Hypotheses 21 and 37) were not supported.

Life satisfaction as the criterion variable (longitudinal)

In Step 5, the Time 1 interaction terms explained 11% of the total variance in Time 2 life satisfaction. The findings indicated that none of the longitudinal moderating effect of coping and work-family facilitation on life satisfaction was

significant. The results failed to support Hypotheses 22 and 38 for life satisfaction over time.

In summary, almost no support was found for longitudinal main effects, in which WFF was significantly positively related to family satisfaction at Time but surprisingly, FWF was significantly negatively related to family satisfaction over time. In addition, the longitudinal interactions plotted in Figures 8.2 and 8.3 did not support the hypotheses in the present study. The following section presents the longitudinal mediating effects of WFF and FWF on the relationships between work-family conflict and criterion variables.

8.3 Multivariate analyses of longitudinal mediating effects

The longitudinal mediating effects of work-family facilitation were analysed by using structural equation modelling (SEM). Figure 8.4 presents the summarised structural model of the longitudinal mediation effects of work-family facilitation (WFF and FWF).

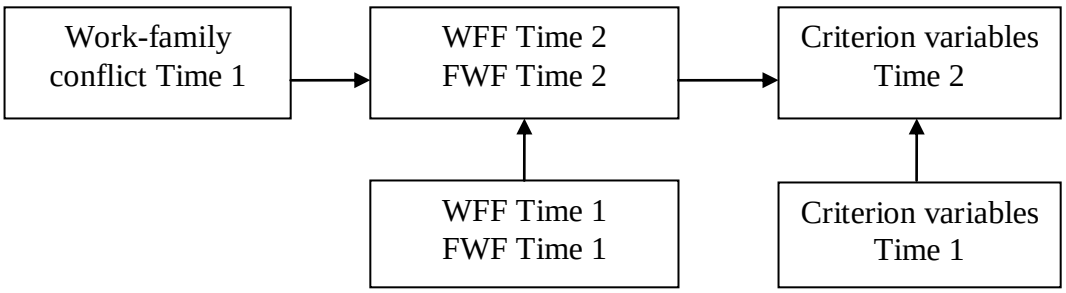

Figure 8.4: Longitudinal mediation effects of WFF and FWF

*The variables are combined here for illustration purpose only. WFF refers to work-family facilitation and FWF refers to family-to-work facilitation

Work-family conflict variables at Time 1 were used as the predictors and work-family facilitation variables at Time 2 served as the mediators. Social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 2 were the criterion variables. In a longitudinal design, the mediating effects could be tested thoroughly and in a more rigorous manner (Cole & Maxwell, 2003). Specifically, the mediators and criterion variables at Time 1 were controlled to avoid the potential confounding effects of Time 1 mediators on Time 2 mediators and also the Time 1 criteria on Time 2 criteria. According to Cole and Maxwell (2003), estimates of the causal path might be inflated spuriously if the confounding effects are not controlled.

As in the cross-sectional analyses, the χ^2/df (< 3.00), RMSEA (≤ 0.05), RMR (≤ 0.09), and CFI (≥ 0.90) were used as guidelines to determine model fit. Sivo and colleagues (Sivo et al., 2006) suggested a cut-off point of ≤ 0.12 to be used for RMR with samples less than 250 (for this longitudinal study, *N = 210*). Therefore, for the longitudinal data, this RMR cut-off point will be used to measure the goodness of fit for the structural equation modelling (SEM) models. Chi-square difference ($\Delta\chi^2$) tests between unmodified and modified models were also conducted to examine significant difference between both models.

The overall model (with WFF and FWF as the mediators) without any modification yielded a poor fit to the data, with RMSEA = 0.07, RMR = 0.13, and CFI = 0.70. Only the χ^2/df value (2.02) was in the recommended range. The modification indices suggested that the addition of four direct pathways from Time 1 WFC strain to social dysfunction, anxiety/depression, family satisfaction, and life satisfaction at Time 2 would improve the model fit. After modification,

the overall model yielded an acceptable fit to the data, with lower χ^2/df (1.36), RMSEA (0.04), RMR (0.09), and higher CFI (0.90). The chi-square difference between the overall full mediation models, before and after modification was significant, with $\Delta\chi^2$ =3392.05, p<0.001.

The longitudinal mediating effect of each direction of work-family facilitation (WFF and FWF) was examined separately. The specific hypothesised mediated relationship over time could not be tested by the overall model because AMOS only reported the significance test of the combined indirect effects of WFF and FWF. Therefore, the model was divided into two sub models: Model A (WFF as a mediator) and Model B (FWF as a mediator), and the results are presented in the following sections.

Model A: Time 2 WFF as a mediator (longitudinal)

The aim of these analyses was to determine the mediation effects of Time 2 WFF between Time 1 work-family conflict and Time 2 strain as illustrated in Model A (Figure 8.5). Model A with Time 2 WFF as the mediator yielded a poor fit to the data, with RMSEA = 0.06, RMR = 0.13, and CFI = 0.73. Only the χ^2/df was in the acceptable range (2.01). According to the modification indices, three new pathways would significantly improve the model fit of Model A at over time. Each added pathway significantly improved the model fit. The added pathways were logical and made conceptual sense, given the underlying theory. The new added pathways were direct paths from Time 1 WFC strain and Time 2 anxiety/depression, Time 1 FWC time and Time 2 social dysfunction, and Time 1 FWC time and Time 2 family satisfaction.

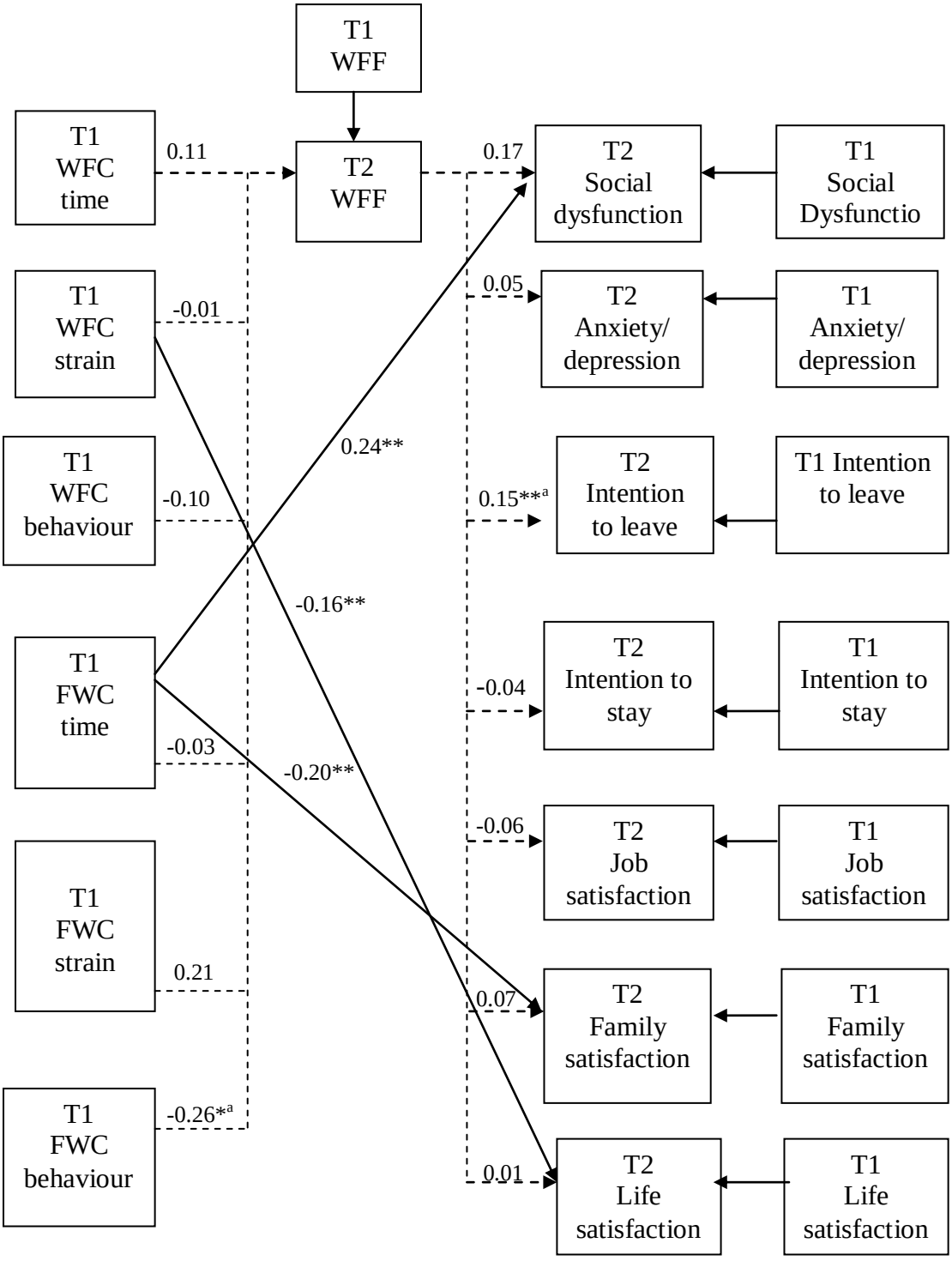

Figure 8.5: Modified Model A with standardised parameter estimates – WFF as a mediator over time

Note: n = 740. ***p*<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour. - - ▶ indicates the effects of predictors - - ▶ mediator s - - ▶ criterion variables. The → indicates the effects of predictors on criterion variables. [a] = the signs of this path were not hypothesised.

The modified Model A over time yielded an acceptable fit to the data, with lower χ^2/df (1.38), RMSEA (0.04), RMR (0.09), and higher CFI (0.90). The chi square difference between the two models (Model A before modification and the modified Model A) was significant, with $\Delta\chi^2$ = 2114.75, p<0.001. Therefore, the modified Model A was used for further longitudinal analyses. Model A (longitudinal) demonstrated that the relationships between Time 2 WFF and social dysfunction, anxiety/depression, intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 2 were not significant. Therefore, no further analyses were required for Time 2 social dysfunction, anxiety/depression, intention to stay, job satisfaction, family satisfaction, and life satisfaction as the criterion variables. The longitudinal direct, indirect, and total effects of Time 2 WFF on the relationships between Time 1 work-family conflict and Time 2 intention to leave were examined to test for the mediation effects over time.

Table 8.6 presents the direct, indirect, and total effects of Time 2 WFF between Time 1 work-family conflict and Time 2 intention to leave.

Table 8.6

Model A: Mediation effects of WFF between work-family conflict and intention to leave over time

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
T1 WFC time → T2 WFF → T2 ITL	0.00	0.02	0.02	None
T1 WFC strain → T2 WFF → T2 ITL	0.00	-0.00	-0.00	None
T1 WFC beh → T2 WFF → T2 ITL	0.00	-0.02	-0.02	None
T1 FWC time → T2 WFF → T2 ITL	0.00	-0.01	-0.01	None
T1 FWC strain → T2 WFF → T2 ITL	0.00	0.03	0.03	None
T1 FWC beh → T2 WFF → T2 ITL	0.00	-0.04**	-0.04	Full

Note: [a]n = 740. *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, beh refers to behaviour, WFF refers to work-family facilitation, FWF refers to family-to-work facilitation, ITL refers to intentions to leave, T1 refers to Time 1, and T2 refers to Time 2.

It was hypothesised that Time 2 WFF would mediate the relationships between Time 1 work-family conflict and Time 2 intention to leave (Hypothesis 59). Out of six mediation paths, only one was significant (16.67%). Specifically, Time 2 WFF fully mediated the relationship of Time 1 FWC behaviour and Time 2 intention to leave. Unexpectedly, FWC behaviour was significantly related to reduced WFF and WFF was significantly related to high intention to leave (in the opposite direction than what was predicted). Hence, Hypotheses 45 for intention to leave over time was not supported. No other support was found for the mediating effect of WFF between work-family conflict and intentions to leave over time.

Model B: Time 2 FWF as a mediator (longitudinal)

The aim of these analyses was to determine the mediation effects of Time 2 FWF between Time 1 work-family conflict and Time 2 strain as illustrated in Model B (Figure 8.6). Model B without any modification yielded χ^2/df = 2.01, RMSEA = 0.07, RMR = 0.13, and CFI = 0.74. Thus, the model was modified accordingly based on the modification indices. According to the modification indices, a new pathway, from Time 1 WFC strain and Time 2 anxiety/depression, would significantly improve the model fit of Model B over time. The new pathway was also logical and made conceptual sense, given the underlying theory. After modification, Model B yielded an acceptable fit to the data, with lower χ^2/df (1.40), RMSEA (0.04), RMR (0.09), and higher CFI (0.90). The chi-square difference between the unmodified and modified models were significant ($\Delta\chi^2$ = 2050.45, p<0.001), indicating an improvement of the modified model. Hence, the modified Model B was used for further longitudinal analyses.

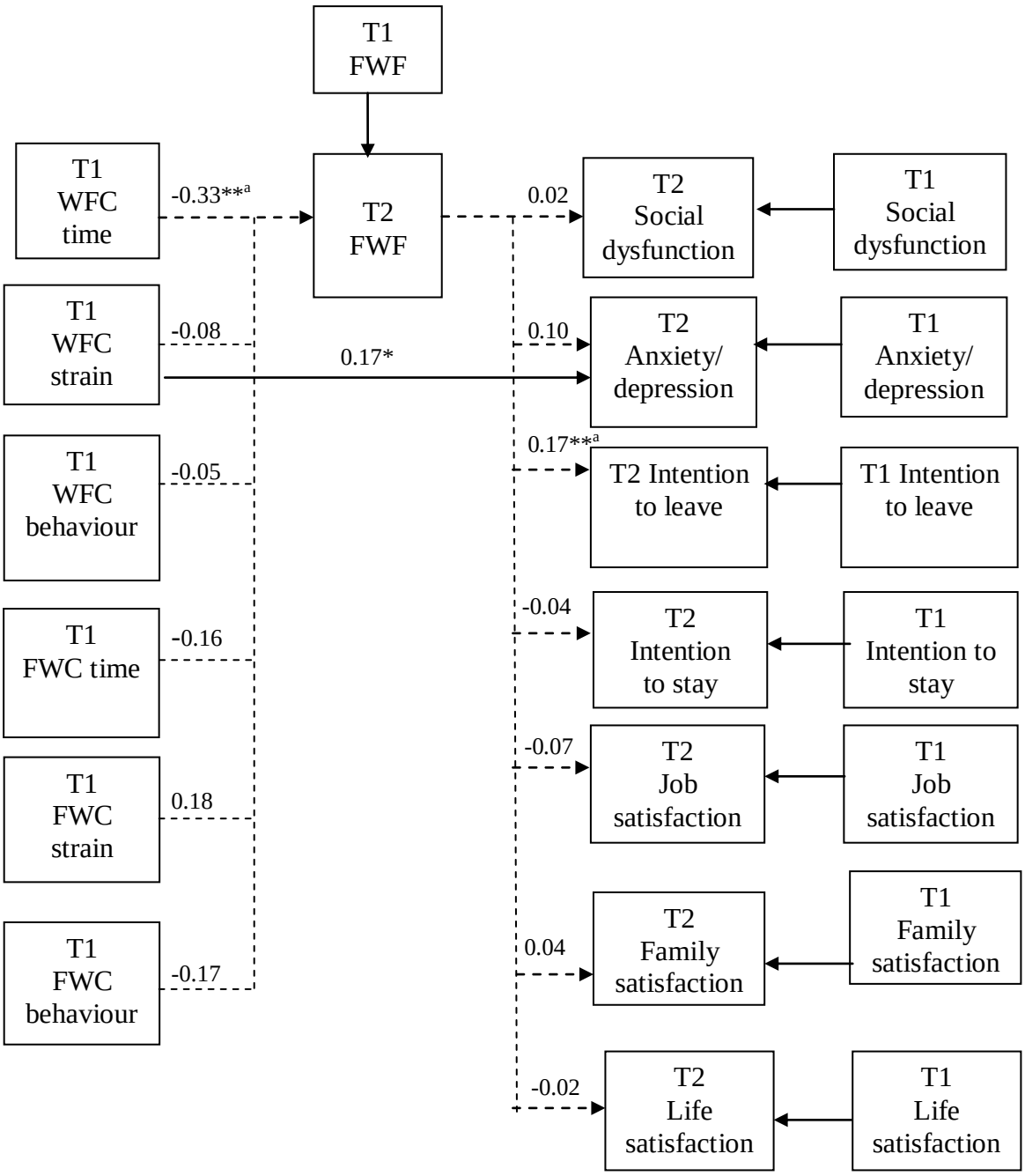

Figure 8.6: Model B with standardised parameter estimates – FWF as a mediator over time

Note: n = 740. **p<0.01, *p<0.05. Work-to-family conflict (WFC) includes time, strain, and behaviour and family-to-work conflict (FWC) includes time, strain, and behaviour.- - ▶ indicates the effects of predictor - - ▶mediator - - ▶criterion variables. The→ indicates the direct effects of predictor on criterion variables. a = the signs of this path were not hypothesised.

Model B (longitudinal) demonstrated that the relationships between Time 2 FWF and social dysfunction, anxiety/depression, intentions to stay, job satisfaction, family satisfaction, and life satisfaction at Time 2 were not significant. Therefore, no further analyses were required for Time 2 social dysfunction, anxiety/depression, intention to stay, job satisfaction, family satisfaction, and life satisfaction as the criterion variables. The longitudinal direct, indirect, and total effects of Time 2 FWF on the relationships between Time 1 work-family conflict and Time 2 intention to leave were examined to test for the mediation effects over time. Table 8.7 presents the direct, indirect, and total effects of Time 2 FWF between Time 1 work-family conflict and Time 2 intentions to leave. It was hypothesised that Time 2 FWF fully mediates the relationships between Time 1 work-family conflict and Time 2 intention to leave (Hypothesis 45).

Table 8.7.
Mediation effects of FWF, between work-family conflict and intention to leave over time.

Predictor → Mediator → Criterion	Direct effect	Indirect effect	Total effect	Mediation types
T1 WFC time → T2 FWF → T2 ITL	-0.33**	0.06**	-0.27	Partial
T1 WFC strain → T2 FWF → T2 ITL	-0.08	-0.02	-0.10	None
T1 WFC beh → T2 FWF → T2 ITL	-0.05	-0.01	-0.06	None
T1 FWC time → T2 FWF → T2 ITL	-0.16	-0.03	-0.19	None
T1 FWC strain → T2 FWF → T2 ITL	0.19	0.03	0.22	None
T1 FWC beh → T2 FWF → T2 ITL	-0.18	-0.03	-0.21	None

Note: [a]n = 210. ***p<0.001, **p<0.01, *p<0.05, [b]WFC refers to work-to-family conflict, FWC refers to family-to-work conflict, beh refers to behaviour, FWF refers to family-to-work facilitation, ITL refers to intentions to leave, T1 refers to Time 1, and T2 refers to Time 2.

Out of six mediation paths, one was significant (16.67%). Specifically, Time 2 FWF only mediated the relationship of Time 1 WFC time and Time 2 intention to leave. Unexpectedly, WFC time was significantly related to reduced

FWF and FWF was significantly related to high intention to leave (in the opposite direction than what was predicted). Hence, Hypotheses 45 for intention to leave over time was not supported. No other support was found for the mediating effect of FWF between work-family conflict and intentions to leave over time.

Chapter Summary

In summary, minimal support was found for the longitudinal main effect of Time 1 work-family conflict, coping, and work-family facilitation on Time 2 criterion variables. As expected, Time 1 WFF was significantly positively related to Time 2 family satisfaction. However, Time 1 FWF and Time 2 family satisfaction was significantly related in the opposite direction than that hypothesised.

The longitudinal moderation effect hypotheses were not supported in this study. However, minimal non-hypothesised moderation effects of planful problem-solving on work-family conflict-intentions to stay relationship were found. No significant interaction was found between work-family conflict and work-family facilitation on any of the criterion variables over time.

Finally, minimal longitudinal mediating effects of WFF and FWF on work-family conflict and the criterion variables were found. However, the mediation effects did not support the hypotheses of the present study. Unexpectedly, Time 1 FWC behaviour was negatively related to Time 2 WFF, and Time 2 WFF was positively related to intention to leave. Similarly, Time 1 WFC time was negatively related to Time 2 FWF, and Time 2 FWF was positively related to intention to leave. All findings from this study in relation to the relevant literature are discussed in the following chapter (Chapter 9). The

theoretical and practical implications of the findings, the limitations of this study together with the recommendations for future research, as well as the conclusion are also included in Chapter 9.

CHAPTER 9

GENERAL DISCUSSION

Chapter Overview

This chapter discusses the cross-sectional and longitudinal results of the present study. In addition, the theoretical and practical implications of the study are also presented. Then the strengths and limitations of the study, together with recommendations for future research, are presented.

A primary objective of this study was to examine the roles of coping strategies and work-family facilitation as moderators of the relationship between work-family conflict and well-being among employed women in Malaysia. Additionally, the mediation roles of work-family facilitation (WFF and FWF) between work-family conflict and well-being were also tested. Two theoretical models were developed: the moderation model (Model A in Figure 3.1, Chapter 3) and the mediation model (Model B in Figure 3.2, Chapter 3).

Model A begins with the hypothesised direct effect of work-family conflict on well-being, followed by the moderating effects of coping and work-family facilitation on the relationship between work-family conflict and well-being. The direct effects of coping and work-family facilitation on well-being were also investigated in this model. Model B, on the other hand, predicted that work-family facilitation would mediate the relationship between work-family conflict and well-being. As noted by Nicklin and McNall (2013) in their meta-analytic review of work-family facilitation, little is known about the mediating role of this construct. Both moderating and mediating models were empirically

tested with a sample of female employees from six types of industry in Malaysia, a country that is categorised as collectivistic in nature and having a high power distance culture (Hofstede, 1991).

A two-wave panel study was conducted to test the direct, moderating, and mediating effect hypotheses of the present study, both cross-sectionally and longitudinally. Self-report data were collected at two time points (Time 1 and Time 2) from employed women in six industries in Malaysia (construction, local authority, education and training, finance, manufacturing, and others). There was a six- to eight-month time interval between Time 1 and Time 2. The self-report survey contained 20 latent variables. A total number of 740 participants completed the Time 1 survey and 210 completed both Time 1 and Time 2 surveys. The strengths and limitations of the design used in this study are discussed in more detail later in this chapter.

At Times 1 and 2, respondents reported moderate levels of WFC and FWC (time, strain, and behaviour). Respondents also reported moderate levels of support-seeking and escape-avoidance and high levels of planful problem-solving and positive reappraisals). The responses to these variables were relatively stable, with no significant differences between Time 1 and Time 2. As for work-family facilitation (WFF and FWF), high levels were reported by respondents. WFF and FWF at Time 1 were found to be slightly higher than WFF and FWF at Time 2.

For the criterion variables, respondents reported moderate levels of social dysfunction, anxiety/depression, and intention to leave, but high levels of intention to stay, job satisfaction, family satisfaction, and life satisfaction. All criterion variables were relatively stable between Time 1 and Time 2, except for intention to leave. The level of intention to leave slightly decreased at Time 2 in

comparison to Time 1. Perhaps, Time 2 levels of WFF, FWF, and intention to leave were lower than that of Time 1 because of the withdrawal of employees with high WFF, FWF, and intention to leave at Time 2.

In discussing the research findings, first, the measurement of variables under study are discussed. Next, the direct effects of WFC and FWC (time, strain and behaviour) are discussed, followed by the direct effects of coping strategies (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisal), and then the direct effects of work-family facilitation (WFF and FWF). Furthermore, the moderating effects of coping and work-family facilitation are discussed. Finally, the mediating effects of work-family facilitation are discussed.

9.1 Measurement of variables under study

The confirmatory factor analyses (CFA) at Times 1 and 2 indicated acceptable fit to the data and confirmed the factor structure of all variables under study. The reliability levels for all variables were in the acceptable range (Table 5.23, Chapter 5). The CFAs confirmed that work-to-family (WFC) and family-to-work conflict (FWC) had three factors each (time, strain, and behaviour), supporting the measure developed by Carlson and colleagues (2000). In addition, the two-factor structure of the General Health Questionnaire (GHQ) confirmed by the CFA supports the findings of Kalliath and colleagues (2004). Furthermore, the CFA of job satisfaction, family satisfaction, and life satisfaction confirmed that there was only a single factor for each of those measures, supporting the original scale of job satisfaction developed by Camman and colleagues (1979) and family and life satisfaction scales developed by Alfonso and colleagues (1996).

In the present study, coping was measured using two constructs, problem-focused and emotion-focused coping. However, the CFA suggested that coping had four factors (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals). Therefore, the four-factor coping scale was used for subsequent analyses in this study. Additionally, the original work-family facilitation scale had three factors (affective, behaviour, and value) for each direction, work-to-family facilitation (WFF) and family-to-work facilitation (FWF). However, the CFA suggested that WFF and FWF only had a single factor each. Therefore, WFF and FWF were treated as single factors for further analyses in the current study.

The CFA also confirmed that the single-factor turnover intention scale yielded an unacceptable fit to the data. Hence, a two-factor turnover intention scale containing the positively worded items (intention to leave) and negatively worded items (intention to stay) was analysed. The CFA suggested that the two-factor model of turnover intention (intention to leave and intention to stay) fitted the data well and thus was used for subsequent analyses. The Time 1, Time 2, and longitudinal structural models also yielded acceptable fits to the data and made it possible to test the mediation hypotheses.

9.2 Direct effects of work-family conflict, coping, and work-family facilitation

This section discusses the cross-sectional and longitudinal results of the direct effects of work-family conflict, coping, and work-family facilitation on well-being (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction.

9.2.1 Work-family conflict

A summary of the direct effects of work-family conflict, coping, and work-family facilitation on well-being at Time 1, Time 2, and longitudinally is presented in Table 9.2, which highlights that the Time 1, Time 2, and longitudinal results were inconsistent. The results of the current study highlighted that the cross-sectional results at Time 1 and Time 2 are inconsistent. These results indicated that respondents' perceptions of the variables might not remain the same during the six-to eight-month interval. As noted by Rantanen and colleagues (Rantanen, Kinnunen, Feldt, & Pulkkinen, 2008), critical incidents in work and/or family circumstances, such as job change, role ambiguity, having a newborn baby, or onset of severe illness, might influence and generate instability in employees' work-family experiences. The six to eight months time interval chosen in this study might be too long because the effects of stressful circumstances faced by employees are more likely to occur in a shorter time span than six months. In relation to this, a multiple wave design with shorter time intervals is suggested for future work-family research so that the causal impact of work-family conflict on well-being and the causal stability of work-family experience can be fully examined.

Table 9.1

Summary of the direct effects at Time 1, Time 2, and longitudinally

Variables	Social dysfunction			Anxiety/depression			Intention to leave			Intention to stay			Job satisfaction			Family satisfaction			Life satisfaction		
	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG
Work-family conflict																					
WFC time											√		√								
WFC strain	√						√				√		√				√				
WFC beh																√					
FWC time																					
FWC strain	√			√	√											√			√		
FWC beh																√					
Coping																					
PPS	√			√													√				
SS																√			√		
EA	√			√	√		√														
PR	√	√																			
Work-family facilitation																					
WFF													√			√		√	√		
FWF																		√			

* T1 = Time 1; T2 = Time 2; LONG = Longitudinal; WFC = work-to-family conflict; FWC = family-to-work conflict; beh = behaviour; PPS = planful problem-solving; SS = support-seeking; EA = escape-avoidance; PR = positive reappraisals; WFF = work-to-family facilitation; and FWF = family-to-work facilitation.

Another possible explanation is the changes that occurred in one of the industries with the largest sample size (i.e. the local authority) during the data collection period (36.5% of the sample size at Time 1 and 44.8% at Time 2). At the second phase of the data collection, local authority had internally reshuffled its employees between departments or to another office branch, but at the same time they remained in the same job status, without personal benefits of voluntary moves or job promotion. Even though most employees retained their job status (e.g., administrative staff), different job scopes in the new department required them to learn new information and roles such as maintaining the drainage and river system throughout Kuala Lumpur. Moving to a new department also required employees to adjust to new supervisors and colleagues, and a different work culture. Research has shown that employees reported stressful experiences at least after the first three months of internal reshuffling (Moyle & Parkes, 1999). Additionally, relocation of employees to another branch far from home might lead to a reconfiguration of family living arrangements such as commuting long distances and arranging school transportation and after-school care for school age children. These changes may have affected employees' perceptions of work demands and consequently influenced their experiences at home.

Psychological strain as the criterion variable

The findings in Table 9.2 indicate that WFC and FWC strain were positively associated with social dysfunction only at Time 1. In addition, it was also found that FWC strain was positively related to anxiety/depression at Times 1 and 2. Hence, the results confirmed the short term direct effects of WFC and FWC strain on social dysfunction and FWC strain on anxiety/depression. These results

are consistent with role strain theory (Goode, 1960) and previous findings on the consequences of work-family conflict on psychological health outcomes reviewed by Allen and colleagues (2000).

Additionally, the long-term effects of WFC and FWC on well-being in the present study were not significant. While a number of cross-sectional studies have found significant short-term effects of WFC (Frone et al., 1996; Netemeyer, Boles, & McMurrian, 1996) and FWC (Shimazu et al., 2010) on psychological strain, such relationships may not be significant over time (Frone et al., 1997; O'Driscoll, Brough, & Kalliath, 2004). According to O'Driscoll and colleagues (2004), the relationship might not be significant longitudinally due to suppressor effects in the longitudinal regression, in which the significant association between predictors (e.g. WFC and FWC) might affect the contribution of one of the predictors (e.g. FWC) on the criterion variable (e.g. family satisfaction) (Maassen & Bakker, 2001).

Work-related outcomes as the criterion variables

In terms of work-related outcomes, this study found that WFC time and strain were negatively associated with job satisfaction at Time 1 and intention to stay at Time 2, whereas WFC strain was positively related to intention to leave at Time 1. No significant direct effect of FWC was found on any of the work-related outcomes (intention to leave, intention to stay, and job satisfaction) at both Times 1 and 2. The findings confirm the source attribution perspective of WFC, which argues that when experiencing WFC, individuals will report decreased positive experiences in the receiving domain (e.g., family), but they attribute the blame to the source domain (e.g., work) (Shockley & Singla, 2011). For instance,

individuals may be dissatisfied with their job because they believe that the job itself has caused the conflict to occur. The results indicate that WFC was more influential than FWC for work-related outcome variables. This is consistent with the earlier findings showing a stronger association of source attribution effect than the domain specific effect (Amstad, Meier, Fasel, Elfering, & Semmer, 2011; Gordon et al., 2007; Karatepe & Killic, 2007; Mesmer-Magnus & Viswesvaran, 2009; Michel et al., 2009; Shockley & Singla, 2011; Wang et al., 2010).

The insignificant direct effect of FWC on work-related outcomes could possibly be explained by the paternalistic nature of family in Malaysian society. Although Malaysian women may be the joint-breadwinners of the family, they are still expected by society to be the primary homemakers. Hence, when experiencing conflict between work and family domains, work demands might be regarded as more stressful than family demands because women's primary roles are viewed as homemakers. Consequently, only WFC and not FWC was directly related to intention to leave and job satisfaction at Time 1, and intention to stay at Time 2. Nonetheless, both WFC and FWC were not predictive of work-related outcome variables over time, consistent with the findings of previous research which found no significant long-term relationship between WFC (time and strain) and FWC (time) with turnover intention (Kelloway et al., 1999) and between FWC and job satisfaction (Grandey et al., 2005).

Nonwork-related outcomes as the criterion variables

The present study also found that WFC (strain and behaviour) and FWC (strain) were significantly negatively related to family and life satisfaction at Times 1 and 2. These findings were consistent with previous meta-analytic studies

on the outcomes of work-family conflict (Adams, King, & King, 1996; Amstad et al., 2011; Ford et al., 2007; Kossek & Ozeki, 1999), which found that WFC and FWC were significantly negatively associated with family and life satisfaction. Interestingly however, this study also found that FWC behaviour at Time 1 was significantly associated with family satisfaction in the opposite direction than that hypothesised. That is, higher FWC behaviour was positively related to higher family satisfaction.

The puzzling finding of a positive relationship between FWC behaviour and family satisfaction could be possibly explained by the Malaysian culture and the societal expectation of women's roles. In Malaysia, women are expected to be obedient and undemanding, and should not compete with men and show off their ability at home (Abdullah, Noor, & Wok, 2008). If similar behaviours are displayed at work, especially in a male-dominated industry such as construction, female employees might encounter difficulties at work because they might be perceived as women rather than job holders by male employees (Gutek & Cohen, 1987). Additionally, a study has shown that the entrance of women into male-dominated job lowered the prestige of the job itself (Touhey, 1974). Therefore, female employees might display different behaviours at work than at home, such as trying to be less submissive, more competitive, more aggressive, and make a good impression of themselves at work. Although the behaviours normally practiced at home are different from the ones displayed at work, this form of conflict may be bearable because in the end, the family will gain, which leads to higher family satisfaction. This is consistent with the idea that family prosperity is the main agenda of people in a collectivist society (Wang, Lawler, Walumbwa, & Shi, 2004).

Longitudinal direct effects of work-family conflict

In spite of the significant direct effects of work-family conflict on well-being, which were consistent with previous cross-sectional studies (Dixon & Sagas, 2007; Karatepe & Uludag, 2008; Zhao et al., 2011), none of the longitudinal direct effects of WFC or FWC on the criterion variables was significant. Perhaps the time interval in the present study was too long and suggests that the effects are more immediate. More research is needed to explore whether stronger effects will emerge with a shorter time interval, such as three months, as chosen by O'Driscoll and colleagues (2004). Additionally, the insignificant long-term direct effects of WFC and FWC on well-being in the present study are consistent with the findings of previous longitudinal research (Frone et al., 1997; Kinnunen et al., 2004). Kinnunen and colleagues (2004) suggested that direct effects of work-family conflict on well-being might occur in a shorter time-span.

In addition, religion might provide another plausible explanation for the insignificant direct effect of work-family conflict on strain and adverse well-being. As religion influences the thought and behaviour of its followers (Parboteeah, Paik, & Cullen, 2009), it might affect the experience of work-family conflict among employed women in Malaysia. Religion gives meaning and purpose to life and is very important in many societies (Iannaccone, 1998). Lazarus and DeLongis (1983) also argued that faith in God or existential belief is important in forming appraisals because the believers achieve peace and tranquillity through their submission to God's will (Abul-Fadl, 1991).

For most Malaysian employees, Islamic religion is a way of life that structures their behaviours, beliefs, values, and experiences, and provides them

strength to cope with daily stressors. Through religion, they are able to deflect everyday tensions and tribulations through prayer and contemplation. They are also able to socialise and receive support through religious activities such as daily congregational prayers and religious talks. As a consequence, it is possible that the negative effects of work-family conflict might be dissipated among these employed women. As such, future researchers might want to consider testing religious behaviours as a moderator of the relationship between work-family conflict and well-being.

9.2.2 Coping

This section discusses the cross-sectional and longitudinal direct effect of coping (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals) on well-being (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction).

Planful problem-solving

Similar to work-family conflict, the short-term direct effects of coping variables were significant at Time 1 and Time 2. Specifically, planful problem-solving was significantly negatively related to social dysfunction and anxiety depression at Time 1, and family satisfaction at Time 2. These results are consistent with the findings of previous research (Brown, et al., 2002; Mark & Smith, 2012). The findings of the present study imply that planful problem-solving is a beneficial coping strategy with regard to short-term psychological and family well-being. However, no support was found for the direct association between planful problem-solving and well-being at work. Perhaps well-being in

the work domain depends more on work-related factors such as supervisor support (Karatepe & Kilic, 2007), family supportive management (Glaveli et al., 2013), or family-friendly work practices (Ngo, Foley, & Loi, 2009).

Support-seeking

Support-seeking was significantly positively associated with family and life satisfaction at Time 1, but not at Time 2. These cross-sectional results were consistent with the findings of previous research (Adams et al., 1996). In the current study, support-seeking was significantly related only to family and life satisfaction, possibly because of the support-seeking measurement used. The four-item scale for support-seeking in this study focused solely on family social support. For example, one of the items measures support from one's spouse and children, "Coordinated your household work schedule with your spouse and children". Thus, it is not surprising that the significant direct effect of social support was only found on family and life satisfaction. Adams and Jex (1999) argued that social support from the family and friends has a stronger association with general health and well-being than with work-related outcomes.

Escape-avoidance

Escape-avoidance was significantly negatively associated with social dysfunction and intention to leave at Time 1, but not at Time 2. The findings of this study indicate that escape-avoidance can be a short-term beneficial alternative (Taylor & Stanton, 2007) to reduce social dysfunction and intention to leave. As noted by previous researchers, escape-avoidance is effective in uncontrollable situations (Endler, 2012; Park, Folkman, & Bostrom, 2001) such as a sudden

onset of chronic illness of a close family member or organisational restructuring at work.

Nonetheless, the present study also found a significant positive effect of escape-avoidance on anxiety/depression at Times 1 and 2. Although significant, the positive association between escape-avoidance and anxiety/depression was in the opposite direction than hypothesised (H7b) but is consistent with the findings of some past studies on the adverse effects of escape-avoidance on well-being (Gibbons, Dempster, & Moutray, 2011; Lease, 1999; Peng et al., 2012). This could possibly happen when escape-avoidance fails to address the demands (McGowan, Gardner, & Fletcher, 2006) that are amenable to change (Park et al., 2001) and when individuals have control over those demands (e.g. work demand such as high workload or family demand such as household chores) (Cunningham & De La Rosa, 2008). This is supported by Bowman and Stern (1995), who noted that avoidance coping is ineffective and unbeneficial for the routine and ongoing stressors encountered in daily work and family lives. In the current study, this type of coping was associated with the levels of anxiety/depression.

Positive reappraisals

Positive reappraisals were significantly negatively associated with social dysfunction at Time 1 and Time 2. This finding is supported by existing research on the effectiveness of cognitive techniques (positive reappraisals) that assist realistic problem reappraisals of routine work and family stressors in reducing employees' distress (Bowman & Stern, 1995).

Longitudinal direct effects of coping

Although coping strategies were significantly related to the criterion variables at Times 1 and 2, the longitudinal analyses illustrated that coping at Time 1 did not predict any of the criterion variables (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 2. These findings imply that the effects of coping on the criterion variables might have dissipated over time, consistent with the view that coping is a dynamic process and the strategies used by individuals may change over time (Wanberg, 1997), depending on structural factors, personal dispositions, and vulnerabilities (Kessler, Price, & Wortman, 1985). Furthermore, one has to keep using effective coping strategies for their effects to be ongoing.

9.2.3 Work-family facilitation

Cross-sectional direct effects

The present study found that work-to-family facilitation (WFF) was significantly positively related to family and life satisfaction at Time 1, but not at Time 2. Work-family facilitation occurs when experiences and resources in one role (e.g. work) improve the quality of life in another role (e.g. family) (Greenhaus & Powell, 2006). For example, the employed women in this study believed that the salary received at work improves their quality of life because they are able to fulfil the basic material needs of the family members and consequently, benefits their family and life satisfaction. As noted by Ariffin (1994), it is common among Malaysian employed women to support their

siblings' education and provide luxury items for their family members by sending them significant amounts of money.

In addition, WFF was also significantly associated with job satisfaction at Time 1, but not at Time 2. Specifically, the experience and resources in the work role enhance the quality of family life and, as a consequence, increase job satisfaction. This relationship could be explained by social exchange theory (Blau, 1964). That is, when an organisation introduces interventions that benefit employees' work and family roles, such as family-friendly workplace policies or family-friendly supportive supervision, individuals might perceive that the organisation is being fair and helps them to integrate work and family roles. As a consequence, the employees are more likely to reciprocate with greater commitment and lower intention to leave. No significant direct effects of WFF were found at Time 2.

As for FWF, none of the direct effect on well-being was significant at both Times 1 and 2. This finding is consistent with prior research that found family boundary is more permeable than work boundary (Carlson et al., 2011; Frone et al., 1992). It is more likely that work resources will spill over from work to family than family resources to spill over from family to work. It is also important to note that the direct effects of work-family conflict on well-being were stronger than the direct effects of work-family facilitation on well-being in the current study. Perhaps, work-family facilitation did not affect the criterion variables directly, as suggested by Carlson and colleagues (2011). Carlson and colleagues (2011) argued that variables such as positive moods mediate the relationship between work-family facilitation and well-being. Therefore, it is suggested that variables

such as personality or resilience should be examined as a mediator between work-family facilitation and well-being in future research.

Longitudinal direct effects

The longitudinal findings in this study show that WFF predicted family satisfaction over time. Specifically, experience and resources at work enhance the experiences at home and consequently enhance long-term family satisfaction. As a collectivist society, Malaysians view the concept of work differently from an individualistic society. Collectivists believe that family welfare is very important in order to achieve happiness and a meaningful life (Lu, Robin, Kao, & Huang, 2006). Therefore, salary as a work resource might improve family quality and, as a result, increase family satisfaction. Since family is central to one's life and family needs take precedence over individual needs, family involvement such as time spent for family activities might cause employees to limit their involvement in work roles (Aryee et al., 2005). Thus, when given a choice between work and family, it is not surprising that 89.9% of participants in a study among Malaysian women perceived that family is more important than their work (Noor, 2001). These women are still committed to their family even though they are experiencing work demands, because work-family facilitation might improve their experiences at home (Hobfoll, 2001).

Unexpectedly, the present study also found that higher FWF at Time 1 predicted lower family satisfaction at Time 2. This finding indicates that family resources which enhance work experiences predicted lower family satisfaction over time. This puzzling finding may suggest that FWF may not affect family satisfaction directly, as noted by Carlson and colleagues (2011). In relation to this,

the mediating roles of work and family variables such as job distress, organisational change, or an onset of a critical illness might be worth testing to explain this relationship. Thus, future research that includes mediating variables between work-family facilitation and well-being is needed.

The findings of this study illustrate that work-family facilitation is not domain-specific, as WFF was significantly related to both work and nonwork satisfaction. The present study also indicates that work-family conflict and facilitation can be experienced simultaneously in both models (moderating and mediating models). The moderating effects of coping and work-family facilitation and the mediating effect of work-family facilitation are discussed in the following sections.

Summary

Overall, the work-to-family direction for both work-family conflict and facilitation had stronger direct effects on well-being than the family-to-work direction, consistent with previous research findings on the permeability of family boundaries (e.g., Williams & Alliger, 1994). In addition, problem-focused (planful problem-solving and support-seeking) and emotion-focused coping (escape-avoidance and positive reappraisals) had stronger direct effects on psychological strain than work-related outcomes and nonwork-related satisfaction. These findings are consistent with the findings of previous research that found weaker coping-satisfaction relationships than coping-strain relationships (Decker & Borgen, 1993).

9.3 Moderating effects of coping and work-family facilitation

This section presents the cross-sectional moderating effects of coping and work-family facilitation on the relationship between work-family conflict and well-being at Times 1 and 2, followed by the longitudinal results.

9.3.1 Moderating effects of coping

This study examined the moderating effects of four types of coping strategies (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals) on the relationship between work-family conflict and well-being (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction). Out of 168 moderating effects of coping on the relationship between work-family conflict and well-being tested, only six interactions were significant at Time 1, six were significant at Time 2, and two were significant over time.

The weak support for coping strategies as moderators was not a surprise, because previous researchers have noted the difficulties in detecting moderating effects (Frese, 1999; McClelland & Judd, 1993). Consistent with Amiot and colleagues (2006) and Day and Livingstone (2001), little support was found for the moderating effect of coping, specifically problem-focused, emotion-focused, and avoidance coping in the stress-well-being relationship. In relation to this, McClelland and Judd (1993) argued that these coping strategies might not be strong enough to make stressful life events have "antidepressant effects" (p.377). In addition, Schaubroeck (1999) argued that individual coping strategies might limit what can be generalised to most employees, because different people might

act to the same stressors differently and, to some extent, sources of stress and coping strategies are personal and idiosyncratic (Lazarus & Folkman, 1991).

Another possible reason lies within the complexity of coping (Snyder, 2001). Different coping approaches have different views on coping. For example, the psychodynamic approach views coping as a defence mechanism (e.g., denial, projection, and repression) (Parker & Endler, 1992), in which individuals use different techniques to adjust the meaning of stressful situations in managing the distress caused. On the other hand, the trait approach equates coping with personality (Connor-Smith & Flachsbart, 2007), in which individuals' personality defines the strategies used by them to cope with stressful situation. In contrast, the transactional approach argues that coping is a process involving cognitive appraisals (Lazarus & Folkman, 1991). The differences in coping approaches lead to different definition of coping strategies by researchers.

While some researchers defined coping as adaptation and adjustment (Zeidner & Saklofske, 1996), others view coping as a process involving cognitive and behavioural effort to manage stressful situations (1999). Lazarus' (1999) definition of coping is the basis of coping strategies such as problem-focused and emotion-focused coping. As opposed to the concept of adaptation adjustment, Lazarus's definition of coping is restricted and limited to intentional strategies to overcome certain stressful situation. As individuals experience different work and family demands, the way they cope with work-family conflict might be different and might involve more than one coping strategy at a time (Koeske, Kirk, & Koeske, 1993). It is possible that interactions between different types of coping strategies (e.g., the interaction between time control and supervisor support) would moderate the relationship between work-family conflict and well-being.

Hence future research might consider investigating the interaction between coping strategies as a buffer in the stressor-strain relationship.

Another issue in coping studies is coping measurement. Based on various definition of coping, there is no clear consensus among researchers on how coping should be measured (Aldwin, 2000). Some coping instruments include items measuring different behaviours within a subscale. For example, the problem-focused coping used in the present study contains items measuring planful problem-solving and support-seeking. Variation in the content of the items might affect the reliability and validity of the instrument. Coyne (1997) suggests that researchers should be more careful when taking measures to improve the reliability and validity of coping instruments, such that researchers should not simply delete items from coping instruments in order to achieve high reliability and validity.

Additionally, researchers should carefully refer to the content of the items because a coping instrument might contain items measuring different types of coping strategies and behaviours. As noted by (Dewe & Cooper, 2007), researchers should focus on the way instructions are worded, how items were generated and worded, and the wording of scoring keys when refining a coping measure. Coyne (1997) also argued that self-report measures of coping should be regarded as a first step in researching the construct, not as the main practice in collecting data. Future researchers might want to consider the narrative approach to examine coping, such as asking respondents to provide a narrative about stressful situations faced by them, as well as respondents' thoughts and behaviours (Folkman & Moskowitz, 2004).

Future researchers might want to take into consideration testing other variables, such as job demand and job control, as moderators of the relationship between work-family conflict and well-being. Previous research has found that higher levels of WFC were associated with higher job demand and job control at work among employed parents in the US (Butler et al., 2005). Other variables such as work and organisational resources (e.g., psychological rewards, family supportive climate, and organisation based self-esteem) might also be possible moderators of the relationship between work-family conflict and well-being. Past research has found that work and organisational resources were related to job satisfaction and organisational commitment (S. Mauno et al., 2006).

Planful problem-solving as a moderator

Even though the main effects of planful problem-solving were as predicted, the interaction effects between work-family conflict and planful problem-solving on well-being were not supported. Only three interaction effects were significant in the cross-sectional data (at Time 1 but not at Time 2) and two interactions in the longitudinal data. These findings were consistent with previous research by Aryee and colleagues (1999) that found no moderating effect of planful problem-solving on work-family conflict and well-being. In future research, researchers might want to consider testing the moderating effects of future-oriented coping strategies such as proactive coping, anticipatory coping, and preventive coping that prepare individuals to deal with possible demands. Proactive coping was found to improve quality of life (Greenglass, 2002), associated with greater planning and goal setting (Greenglass, Marques, deRidder,

& Behl, 2005), related to less functional disability, less depression, and greater perceived social support (Greenglass, Fiksenbaum, & Eaton, 2006).

Support-seeking as a moderator

The moderating effect of support-seeking (a problem-focused coping subscale) was also assessed in the moderation model (Model A, Figure 3.1) in the current study. Similar to planful problem-solving, the interaction effects between work-family conflict and support-seeking on well-being were not supported. Only two interaction effects were found in the cross-sectional data (one at Time 1 and another one at Time 2), while no interaction effect was found longitudinally. A plausible explanation for these findings is that the support-seeking instrument used in the present study mainly focused on spousal support. The interaction effects of support-seeking were not supported, perhaps because this kind of support did not help respondents to achieve greater well-being when experiencing work-family conflict. These findings were supported by previous research which found no interaction between stressors and support on strain (Saija Mauno, 2010) Carlson & Perrewe, 1999). As noted by Dewe, O'Driscoll, and Cooper (2010), the key in understanding the effects of support probably lies in the nature of support provided and the types of support needed by individuals. Therefore, future research should consider examining other types of support such as supervisor support, co-worker support, community support, childcare support, and neighbourhood support on the stressor-strain relationship.

Escape-avoidance as a moderator

The moderating effect of escape-avoidance (an emotion-focused coping subscale) was tested in the moderation model (Model A, Figure 3.1) in the current study. The interaction effects between work-family conflict and support-seeking on well-being were not supported. Only three interaction effects were found in the cross-sectional data (one at Time 1 and another two at Time 2), while no interaction effect was found longitudinally. The findings indicate that escape-avoidance did not help respondents to perceive work-family conflict as not detrimental to well-being. This result is supported by Roth and Cohen (1986) who argued that in some circumstances, strategies used in avoidance coping have little effectiveness. Such strategies include focusing on and venting of emotion, mental disengagement, and behavioural disengagement (Carver, Scheier, & Weintraub, 1989). Future research could test the moderating role of leisure activity as a coping strategy in work-family conflict and well-being relationship. Research has found that leisure coping buffered the negative effect of stress on health among employees (Iwasaki, 2006).

Positive reappraisal as a moderator

Similarly, the interaction effects between work-family conflict and positive reappraisal (a type of emotion-focused coping) on well-being were not supported. Only one interaction effect was found in the cross-sectional data (only at Time 1 but no interaction at Time 2), while no interaction effect was found longitudinally. Perhaps, positively appraising a stressful situation (work-family conflict) did not help employed women in this study to achieve greater well-being. The employed women's attempts in this study to see the stressful situation

(work-family conflict) in a positive light might not be enough for them to reduce social dysfunction because positive reappraisal did not change the fact that they were still experiencing work-family conflict. This finding is consistent with previous research that found no moderating effect of positive reappraisal between job demands and well-being (Ippolito, Adler, Thomas, Litz, & Hölzl, 2005).

9.3.2 Moderating effects of work-family facilitation

This study also investigated the moderating effects of work-family facilitation (WFF and FWF) on the relationship between work-family conflict and well-being (social dysfunction, anxiety/depression, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction). The results indicated a very weak support for work-family facilitation as a moderator, in which only two out of 84 moderating hypotheses at Time 1 and only three out of 84 moderating hypotheses at Time 2 were supported. Additionally, no longitudinal moderating effect of work-family facilitation was found in the present study. This could be possibly explained by social support deterioration deterrence model (SSDD), in which resources (i.e., coping and work-family facilitation) might be inadequate to combat strain because the stressors (work-family conflict) were too overwhelming for the resources (coping and work-family facilitation) (Hobfoll, 2002).

Summary

Overall, very weak support was found for the moderating effects of coping and work-family facilitation on the relationship between work-family conflict and

well-being. The findings of the mediating effects of work-family facilitation are discussed next.

9.4 Mediating effects of work-family facilitation

In addition to the above moderating effects, the mediating effects of work-family facilitation on the relationship between work-family conflict and well-being were cross-sectionally and longitudinally examined in this study. A summary of the results is presented in Table 9.3. The cross-sectional results in Table 9.3 demonstrated six out of seven significant mediating effects of WFF and six out of seven significant mediating effects of FWF in the relationships between FWC time and well-being (social dysfunction, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction at Time 1.

Table 9.3 also presents the mediating effects of WFF at Time 2, revealing three out of seven significant mediating effects of WFF between WFC strain and well-being (social dysfunction, family satisfaction, and life satisfaction), three out of seven significant mediating effects of WFF between WFC behaviour and well-being (social dysfunction, family satisfaction, and life satisfaction), three out of seven significant mediating effects of WFF between FWC strain and well-being (social dysfunction, family satisfaction, and life satisfaction), and three out of seven significant mediating effects of WFF between FWC behaviour and well-being (social dysfunction, family satisfaction, and life satisfaction). Only one out of seven significant mediating effect of FWF between FWC behaviour and family satisfaction was found at Time 2.

Table 9.3

Summary of the mediating effects of work-family facilitation at Time 1, Time 2, and longitudinally

	SD			AD			ITL			ITS			JS			FS			LS		
	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG	T1	T2	LONG
WFC time → WFF																					
WFC strain → WFF		√															√			√	
WFC beh → WFF		√															√			√	
FWC time → WFF	√						√			√			√			√			√		
FWC strain → WFF		√															√			√	
FWC beh → WFF		√						√									√			√	
WFC time → FWF								√													
WFC strain → FWF																					
WFC beh → FWF																					
FWC time → FWF	√						√			√			√			√			√		
FWC strain → FWF																					
FWC beh → FWF																	√				

* T1 = Time 1; T2 = Time 2; LONG = Longitudinal; WFC = work-to-family conflict; FWC = family-to-work conflict; beh = behaviour; WFF = work-to-family facilitation; and FWF = family-to-work facilitation. ** √ - significant mediation.

With reference to the above findings, the only relationship which is relatively consistent is the relationship between FWC (time) and work-family facilitation (WFF and FWF) on well-being (social dysfunction, intention to leave, intention to stay, job satisfaction, family satisfaction, and life satisfaction) at Time 1. This finding indicates that FWC time reduced the resources gained from work (which could enhance family experiences) and family (which could enhance work experiences) and therefore reduced their well-being. This finding is supported by the social support deterioration deterrence (SSDD) model (Hobfoll, 2002), in which the resources were perceived to be lost in attempting to regain optimum balance between work and family, and in turn, decreased satisfaction and incurred psychological strain and turnover intention. For example, employed mothers would experience higher psychological strain when they have to spend more time for a newborn baby in the family regardless of the positive feelings experienced at work, for instance praise from their supervisor for a task being successfully accomplished.

FWC time was found to have positive relationships with WFF and FWF at Time 1, but not at Time 2 and longitudinally. Similarly, WFC and FWC strain were found to have positive relationships with WFF at Time 2, but not at Time 1 and longitudinally. Perhaps, in stressful situation such as work-family conflict, individuals struggle to gain and maintain resources (work-family facilitation) in order to protect resource loss resulting from work-family conflict (Hobfoll, 2002).

Additionally, longitudinal analyses provided minimal support for the mediating effect of work-family facilitation. Only one out of seven significant mediating effects of WFF (on the relationship between FWC behaviour and intention to leave) and FWF (on the relationship between WFC time and intention

to leave) were found, but those mediating effects were not hypothesised. Specifically, the results indicated that higher FWC behaviour was negatively related to reduced WFF, and higher WFF was associated with increased intention to leave over time. Similarly, higher WFC time was negatively related to reduced FWF, and higher FWF was associated with increased intention to leave over time. This could be explained by using the social support deterioration deterrence (SSDD) model, an extension of the concept of loss cycle in COR theory (Hobfoll, 2002). According to SSDD, stressful situation such as work-family conflict require individuals to actively mobilised the resources (e.g., work-family facilitation) to offset the negative consequences of work-family conflict. However, after the awhile, the deterioration of resources (e.g., work-family facilitation) might continue, leaving individuals more vulnerable to work-family conflict. For example, although individuals received emotional support from their spouses (FWF), their intention to leave the organisation may increase over time when they spent most of their time for work roles because they might perceive work as disadvantaging their family lives.

Summary

Overall, some mediating effects of work-family facilitation were found in the present study and thus, partially supported the mediating hypotheses.

9.5 Theoretical implications

The present study offers several important theoretical implications for the work-family and coping literature. First, this study examined theoretical models for the moderating effects of coping and work-family facilitation, and the

mediating effects of work-family facilitation on the relationship between work-family conflict and well-being. The findings of this study partially supported the hypothesised direct effect of work-family conflict, coping, and work-family facilitation on well-being. Similarly, partial support was found for the mediating effects of work-family facilitation. However, a very weak support was found for the moderating effects of coping and work-family facilitation. Therefore, the work-family models introduced in this study were not fully applicable to the Malaysian sample.

The impacts of the six types of work-family conflict (WFC and FWC time, strain, and behaviour) on criterion variables have been less explored, albeit work-family conflict has been investigated as a predictor of well-being in previous studies (e.g., Li & Leung, 2012; Pedersen & Minnotte, 2012). The finding of this study showed that WFC was more related to work outcomes and FWC was more related to family outcomes, hence supporting the source attribution perspective notion of work-family conflict (Frone et al., 1992).

Additionally, the present study found that the direct effects of work-family conflict on criterion variables were immediate rather than prolonged. The results indicate that work-family conflict did not contribute to strain and adverse well-being over a six-to eight-month interval. The insignificant negative long-term effect of work-family conflict might be attributable to the belief system adhered to by Malaysians. As Malaysians generally perceive themselves as religious (Merriam & Mohamad, 2000), they are able to face stressful situations such as work-family conflict through prayers and meditation (Abdullah, 1996). By engaging in prayers, individuals are able to distract themselves from daily hassles

and achieve peace of mind. Subsequently, it is possible that the adverse effects of work-family conflict can be dissipated from their lives.

Even though many studies on coping have been conducted in Eastern countries such as Japan (Bhagat et al., 2010), China (Siu, Spector, Cooper, Lu, & Yu, 2002), Taiwan (Huang, Musil, Zauszniewski, & Wykle, 2006), and India (Sinha, Willson, & Watson, 2000), the findings cannot be simply generalised to the Malaysian society because Malaysia is a unique multiracial country with cultural diversity. The Malaysian population consists of three major ethnic groups: Malay, Chinese, and Indians. Although each ethnic group retain their own identity, all Malaysians share similar values: collectivistic, hierarchical, relationship-oriented, and face-saving (Abdullah, 1996). These values therefore might influence their behavioural and cognitive efforts directed towards alleviating stress.

In relation to this, the current study found that Malaysians engaged in all four types of coping: planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals. The findings indicate that different types of coping might co-occur and individuals might utilise different types of coping with different types of stressors. Interestingly, although escape-avoidance was found in previous research to increase psychological strain (e.g., Lease, 1999) because it draws individuals' attention away from the problem, this study found that escape-avoidance was beneficial in relation to psychological strain and intention to leave at Time 1. A plausible explanation for this finding is the notion that collectivists value group goals. Thus, they may suppress their reactions to social dysfunction and intention to leave the organisation for the good of the collective.

In answering the challenge by Greenhaus and Powell (2006) to explore work and family theories, the present study has examined the direct and moderating effect of work-family facilitation in the above said model. Although work-family facilitation has been investigated as a predictor and outcome in previous research (Culbertson, Mills, & Fullagar, 2012; Lee et al., 2013; Nicklin & McNall, 2013), the role of WFF and FWF as moderators between different types of work-family conflict (WFC and FWC time, strain, and behaviour) and well-being have been rarely explored.

However, the findings of the present study found partial support for the direct effects of work-family facilitation on well-being. Perhaps, work-family facilitation was not directly related to well-being variables, but mediated by other variables such as positive mood or personality. Although relatively weak support for the moderating effects of WFF and FWF on the relationship between work-family conflict and well-being among Malaysian employed women were demonstrated in the current study, the mediating effect of work-family facilitation partially supported the hypothesised mediating model. Even though work-family facilitation has been tested as a mediator in previous studies (e.g., Baral & Bhargava, 2010; Wayne, Casper, Matthews, & Allen, 2013), none has looked into the mediating effects of WFF and FWF between different types of work-family conflict and well-being as being examined in this study.

This study also fulfils the recommendation by Wong, Wong, and Scott (2006) to examine the moderating effect of coping in a collectivist society, as collectivists have different cultural values than individualists. However, very weak support was found for the moderating effects of coping strategies used in this study. Overall, the hypothesised moderating and mediating models were not

fully generalisable to the Malaysian sample. However, including a collectivist-oriented country such as Malaysia in the literature provides additional information in understanding the association among work-family conflict, coping, work-family facilitation, and well-being.

9.6 Practical implications

The present study has several major practical implications on human resource practitioners and organisations. First, the findings of this study suggest that work-family conflict was related to strain and adverse well-being among Malaysian female employees in a wide range of industries. Work-to-family conflict (WFC) and family-to-work conflict (FWC) were positively associated with social dysfunction, anxiety/depression, and intention to leave, and negatively related to intention to stay, job, family, and life satisfaction, except for FWC behaviour at Time 1 (positively associated with family satisfaction). Therefore, human resource practitioners should pay more attention to work-family conflict experiences because of its detrimental effects on well-being.

Time-based work-family conflict provides a useful basis for developing management intervention in order to increase employee's well-being. The current study indicated that high WFC and FWC time were related to low intention to stay with the organisation. High time-based conflict may result from work domain such as number of working and commuting hours per week, overtime, shiftwork, inflexibility of work schedule, or from home domain such as hours caring for young children and elderly, hours spent for housework, and large families (Greenhaus & Beutell, 1985). Although Malaysian employed women would prefer to spend more time at home to take care of the family, at the same time they

would also like to continue working to support the family. Hence, part-time employment and job sharing which are not a common practice in Malaysian organisations, might offer some flexibility for working women. By having two part-time female employees to fill-in a full time position, the employed women might have more time to spend at work and at home and at the same time, they are able to financially support their family.

This study also found that WFC and FWC strain were negatively related to social dysfunction, anxiety/depression, and intention to leave, but positively associated with intention to stay, job, family, and life satisfaction. High strain-based conflict may result from work (high workload and low supervisor support) or family domains (giving birth to a new baby and spousal disagreement on family roles). Thus, organizations should recognise the importance of parental leave since most Malaysian employed women who are in their childbearing years (25 to 39 years old) were likely to exit the labour market due to marriage and childrearing (Khalili, Esa, & Miskiman, 2012). According to Khalili and colleagues (2012), this situation is in contrast to that in industrialised countries where employed women do not leave their job during childbearing years or they re-enter the labour force once their childbearing has been completed.

In relation to this, Malaysia has introduced a new policy for maternity leave, which is 100 per cent paid maternity leave for up to 300 days throughout an employee's service. However, some supervisors might not be supportive of this policy due to shortage of staff. Therefore, it is important for human resource practitioners to educate supervisors about the importance of work-life intervention programmes because such programmes are beneficial and important for organisations in retaining valuable employees that have been recruited and

trained. Previous studies indicated that such interventions were associated with reduced work-family conflict (Hill, Yang, Hawkins, & Ferris, Hill, Yang, Hawkins, & Ferris, 2004). In addition, supportive supervision at work such as being understanding when employees must occasionally leave early to pick their children from school or to bring their elderly parents to the hospital might also reduce work-family conflict (Anderson et al., 2002).

Second, to some extent, this study found that coping (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals) was associated with less strain. In addition, there were minimal supports for certain types of coping as moderators on the relationships between certain types of coping and criterion variables. Although the moderating effects of coping were not strong, the findings indicate that coping does play some roles on stress-strain relationship. As such, human resource practitioners might want to consider interventions aiming at increasing individuals' psychological resources such as training programmes related to coping for employees. Such knowledge and skills gained during the programme might enable employees to be aware of coping strategies available and to what extent the strategies might help them to achieve greater well-being. Employees' coping skills may then be increased with several follow-up training programmes. In this case, supervisors may provide their support and cooperation by allowing employees to take part in such programmes. For example, van der Klink, Blonk, Schene, & van Dijk (2001) found that cognitive behavioural coping intervention reduced employees' stress-related complaints.

Third, the results of this study indicate very weak support for the moderating effects of coping on the relationship between work-family conflict and

criterion variables. Perhaps, coping instruments used in this study focus more on the individualistic approach, but not the social aspect of coping. Although items on spousal support were included in the present study, the concept of coping should be broaden (Dewe & Cooper, 2007) and future research should explore the notion of interpersonal, communal, relationship-focused, and collaborative coping (Berg et al., 2008) as individuals are social beings and do not stand alone in their environments.

Fourth, although the findings of the current study demonstrate relatively very weak support for the moderating effects of work-family facilitation, but some support was found for the mediating effect of work-family facilitation on the relationship between work-family conflict and well-being. The findings indicated that work-family facilitation did not change the strength and relationship between work-family conflict and well-being and therefore this variable is unsuitable to be applied in an intervention for behavioural change within Malaysian organisations. However, the mediating role of work-family facilitation helps the organisation to understand the process that underlies the relationship between work-family conflict and well-being. By understanding this process, organisations might be able to tackle the problem associated with issue and plan suitable interventions for the employees.

9.7 Strengths and limitations of the study

This section discusses the strengths and limitations of the present study. First, since the data were collected by using a non-experimental design via a self-report survey, the inference of causal relations was limited. The cross-sectional self-report survey may be affected by common method variance which could

interfere with the association of the variables under study (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, Spector (2006) argues that the issue of common method variance was oversimplified and seems to be more of an "urban legend" than the truth. On the other side, the use of a longitudinal design might reduce the risk for common method variance (Zapf et al., 1996) because (i) there might not be enough time for a predictor to exert its effect on criterion variables if they were measured at the same time point, (ii) there might be an autocorrelation between the same variables at a later time, and (iii) there might be variation in effect size due to the length of time interval (Gollob & Reichardt, 1991). Thus, a two-wave longitudinal design may overcome the limitations of the cross-sectional design in this study.

Second, it is important to note that the longitudinal results of this study were inconsistent with the cross-sectional ones. For example, the cross-sectional findings indicated that work-family conflict was related to well-being, but none of the longitudinal association between work-family conflict, coping, and work-family facilitation with well-being was significant. If the longitudinal approach failed to detect the causal relationship between those variables, a six- to eight-month interval may not be a suitable time interval to determine such association. This might suggest the importance of time interval in determining longitudinal results because it affects the magnitude of the longitudinal relationship (Frone et al., 1997; Gollob & Reichardt, 1987). Hence, the time interval should be well-planned so that it is neither too long or too short (Ployhart & Vandenberg, 2010). The nature of the long-term effect (e.g. six month) of work-family conflict (e.g., Kelloway et al., 1999) and coping (e.g., Leiter, 1990) with well-being have been confirmed in previous research. Accordingly, a six-to eight-month time interval

was chosen and considered as adequate to test longitudinal effects in the present study. However, the results showed that those predictors were not associated with the criterion variables over time in this study. Perhaps, a shorter interval such as three months is needed to elicit strain reactions.

Third, the longitudinal results of the current study should be interpreted with some caution because the two-wave data used might limit its generalisability. Ideally, a multiple wave data collection is preferable, although there are advantages of two-wave data over a single wave one (Zapf et al., 1996). However, multi-wave data collection was not feasible in this study due to practical constraints. Despite the potential limitation on its generalisability, the present study offers some theoretically interesting findings on moderating and mediating effects, both cross-sectionally and longitudinally.

Fourth, the current study only tested one-way causal relationships in the longitudinal analyses, but not the potential reversed and reciprocal cross-lagged effects because they were not the main objective of the current study. However, it is possible to examine the cross-lagged association to test the reverse and reciprocal effects of the variables and thus further studies to test these effects are needed in the future.

Fifth, the sample of employed women in this study was recruited from various types of industry. The sample was predominantly recruited from the local authority (36.5% at Time 1 and 44.8% at Time 2), followed by education and training industry (22% at Time 1 and 22% at Time 2), other industry (18.2% at Time 1 and 13.8% at Time 2) construction industry (8.8% at Time 1 and 7.1% at time 2), finance industry (8.55 at Time 1 and 8.1% at Time 2), and manufacturing industry (5.9% at Time 1 and 4.3% at Time 2). The ANOVA showed significant

difference between those industries and therefore industry type was included as a control variable in hierarchical regression analyses, alongside age, job tenure, organisational tenure, and negative affectivity (which were correlated with predictors and criterion variables at Time 1 and Time 2). Hence, the findings may be extended to samples from various different industries in Malaysia, covering a wide range of working conditions.

Sixth, very weak supports were found for the moderating effect of coping and work-family facilitation in the present study. This research included four types of coping (planful problem-solving, support-seeking, escape-avoidance, and positive reappraisals) and two dimensions of work-family facilitation (WFF and FWF) as moderators. According to Frese (1999), larger samples may be needed because moderated regression is known for its low statistical power. The relatively weak support for coping strategies as moderators was not a surprise because previous researchers have noted the difficulties in detecting moderating effects (Frese, 1999; McClelland & Judd, 1993). Consistent with Amiot and colleagues (2006) and Day and Livingstone (2001), very little or no support at all was found for the moderating effect of coping in the stress-well-being relationship. However, results might differ for other moderating variables (e.g. personality traits, coaching, and work culture).

Finally, any possible changes happened within the organisation (restructuring, downsizing, and reshuffling) or at home (e.g. give birth to a new baby, spouse or children being diagnosed with a chronic illness) during the interval between the first and second data collection may have affected employees' working and family conditions. The changes might alter employees' perceptions toward their work and family across time.

9.8 Recommendations for future research

Several recommendations are suggested in which future research can be conducted based on the current findings. First, a multiple wave design with shorter time intervals is recommended for future research so that the causal impact of work-family conflict on well-being and the missing information on the causal stability of work-family experience can be fully examined. In the present study, some effects were found to be unstable over time. For example, WFC and FWC strain were positively associated with social dysfunction at Time 1, but not at Time 2. Planful problem-solving was related to family satisfaction at time 2, but not at Time 1. This lack of stability is difficult to explain. Another round of data collection (third wave) would help to examine the stability of the results. If results in the third wave stay stable, it can be generalised. However, if the results are still not stable, it will be hard to conclude about the importance of work-family conflict and coping on employees' well-being.

Second, future researchers would benefit from use of both self-report and narrative approaches of coping so that qualitative meaning of what is happening in any stressful situation can be examined in depth. It would be worthwhile to measure coping strategies in details, such that more understanding on the respondents' coping process could be gained. Furthermore, future researchers could measure the effects various types of social support such as workplace support, friends and co-workers' support, and community support so that a holistic picture of social support can be understood.

Third, although the CFA yielded a uni-dimensional factor structures each for WFF and FWF, differentiating between different types of WFF and FWF

seems to be worthwhile for future research. Using specific type of WFF and FWF to specific outcomes will enable us to extricate specific work and family resources that enhance family and work experiences and their relations to well-being. When designing a study, future researchers should carefully consider the specific WFF and FWF to be examined.

Fourth, future research should also consider religion as a variable to be studied in work-family research because religious beliefs affect the thoughts and behaviours of its followers. Through religion, individuals could reduce everyday tensions and tribulations by engaging in prayers. They also would be able to socialise and receive support through religious activities such as religious talks.

9.9 Conclusion

Overall, the current study has provided an evidence to support the idea that work-family conflict and facilitation are two distinct constructs with different consequences. Work-family conflict and facilitation may co-occur and investigating the combination of both constructs in a model is more meaningful than examining them in isolation (Mauno, Kinnunen, & Rantanen, 2011).

In addition, moderating and mediating models were not fully generalised to the Malaysian sample because very weak support was found for the moderating effects of coping and work-family facilitation and partial support was found for the mediating effect of work-family facilitation cross-sectionally. The longitudinal findings of moderating and mediating effects did not support the hypotheses of the present study.

To conclude, the present study offers empirical evidence on the effects of work-family conflict, coping, and work-family facilitation among employed

women from various organisations in Malaysia. The findings aid human resource practitioners and policy makers to better understand the work-family experiences in employees' life. As such, this might help to understand the underlying process in the relationship between work-family conflict and well-being.

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APPENDIX 1: LETTER TO ORGANISATIONS

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Ruhaya Hussin
PhD Candidate,
Department of Psychology,
Faculty of Arts and Human Sciences,
The University of Waikato,
Private Bag 3105,
Hamilton, New Zealand

Dear Sir/Madam,

REQUEST FOR PERMISSION TO CONDUCT PHD RESEARCH AT THE .....

May this letter reach you in the best of health. With regard to the above matter and my initial contact with ....., the Human Resources Manager at the ....., I am writing to formally request your permission to conduct my PhD research in your department entitled "Work-family conflict and strain among employed women in Malaysia: The role of coping and facilitation". This research aims to study the work-life balance among employed women in Malaysia. Balancing work and family domains are important especially for female employees as it may affect their job performance and organizational commitment.

By participating in this research, your organization will receive important information for providing direction in terms of training, organizational culture and workplace policies that best suit your employees. These aspects are important in maintaining employees' mental health and satisfaction, and in return, the organization might be able to retain those resourceful and committed employees in the current workforce. For your information, any research finding provided to the organization will be in the summary form. Individual employees' responses will not be included in any of the information in order to assure the confidentiality and anonymity of their responses. The details of this research are available in the information sheet that will be handed over to the volunteered employees.

In this research, questionnaires will be distributed to female employees in your organization in two phases. Phase 1 is scheduled to start in early 2010 and Phase 2 will commence in mid 2010. Therefore, I would appreciate your assistance in distributing the information about this research and the questionnaires to your employees. I would also like to request your permission to provide me with a list of female employee names, and departments in order to match the Phase 1 and Phase 2 data. The employees' names and departments will be used to form a serial number for each of the questionnaire before being distributed to the participants. I assure that the information given will be treated with complete confidentiality. Furthermore, I would like to request your assistance in sending emails that contain the information on the URL of the online version of the questionnaire in order to facilitate them completing it online.

If you have further queries on this research, you can contact me or my supervisors, Prof. Michael P. O'Driscoll at psyc0181@waikato.ac.nz or Dr. Donald A. J. Cable at DCABLE@waikato.ac.nz. I look forward to hearing from you and I am grateful for your input into the successful implementation of this research. Thank you.

Yours sincerely,

_____

(Ruhaya Hussin)
Email: rh116@students.waikato.ac.nz

APPENDIX 2

RESEARCH QUESTIONNAIRE
Research on women at work
INFORMATION SHEET
Note: This questionnaire may be completed on-line or in hard copy

Assalamualaikum and Hello,

Dear employees,

The aim of this research is to investigate the experience of Malaysian employed women at work. Your participation may provide important information on women's experience at work. This information will be valuable to your organization, to initiate and provide successful training programs, workplace policies and organizational culture that best suit employee. You will involve in completing the questionnaire twice. The first one will be in early 2010 and the second one will be in mid 2010. Your participation is **VOLUNTARY** and important for the success of this research.

In this research, you will be asked for your responses on a number of items that are related to your work experiences. It will take you approximately 20 minutes to complete the questionnaire and you may do this either in hard copy or via the internet. I would appreciate if you can complete the questionnaire within the next 2 weeks. After completing the questionnaire, you may return the questionnaire to me by placing it in the pre-stamped and pre-addressed envelope provided. If you opt to answer the on-line version of the questionnaire, you can follow the instructions provided in this URL (_____) to submit your responses. The **CONFIDENTIALITY** of your responses is assured in which I will be the only person who will have the access to the information. The completion and return of the questionnaire will be considered as your **CONSENT** to participate in this research.

Before answering the questionnaire, you will be asked to fill in your Malaysian identification card number at the top left column on page 1. This information is **IMPORTANT** for coding and analysis purposes. The information provided will not be used to identify your individual responses.

If you have any query about this research, you can contact either myself (through phone +64210470157 or via email at rh116@students.waikato.ac.nz) or my supervisors (Prof. Michael O'Driscoll at psyc0181@waikato.ac.nz or Dr. Donald A. J. Cable at DCABLE@waikato.ac.nz) at any time during this study to discuss any aspect of it. Thank you for your precious time.

Warm regards,

Ruhaya Hussin
PhD Candidate
Department of Psychology
University of Waikato, New Zealand

If you are interested to get a summary of the research results and/or to join the lucky draw of this study, please fill in the "Copy of Results" and /or "Lucky Draw" forms so that you can be contacted and the results and/or the prizes can be delivered to you. Four prizes worth MYR100.00 each are available for the winners of this Lucky Draw. Please detach both forms from the questionnaire and include them in the envelope provided. These forms will be separated from the questionnaire. I assure complete **CONFIDENTIALITY** and I will not be using the forms to identify any individual response. For those who answer this questionnaire online, you can click the send button at the bottom of the questionnaire.

==========

COPY OF RESULTS FORM

I wish to receive the summary of the research results. Please send me the soft copy of the research result to:

Email Address: _____

or

send me a hard copy of the research results at the following address:

Postal Address: _____

_____

_____

==========

LUCKY DRAW FORM

If I win this lucky draw, please send the prize to the following address:

Name: _____

Postal Address: _____

_____

_____

Phone No (optional): _____

(to be contacted in case the prize cannot be delivered to the above address)

==========

Malaysian Identification card number: _____ Industry: _____

Section A

Please indicate **how you would agree about your work and family** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My work keeps me from my family activities more than I would like.					
2	The time I must devote to my job keeps me from participating equally in household responsibilities and activities.					
3	I have to miss family activities due to the amount of time I must spend on work responsibilities.					
4	The time I spend on family responsibilities often interferes with my work responsibilities.					
5	The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career.					
6	I have to miss work activities due to the amount of time I must spend on family responsibilities.					
7	When I get home from work I am often too frazzled to participate in family activities/responsibilities.					
8	I am often so emotionally drained when I get home from work that it prevents me from contributing to my family.					
9	Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy.					
10	Due to stress at home, I am often preoccupied with family matters at work.					
11	Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.					
12	Tension and anxiety from my family life often weaken my ability to do my job.					

13	The problem-solving behaviours that work for me in my job are not effective in resolving problems at home.					
14	Behaviour that is effective and necessary for me at work would be counterproductive at home.					
15	The behaviours I perform that make me effective at work do not help me to be a better parent and spouse.					
16	The behaviours that work for me at home do not seem to be effective at work.					
17	Behaviour that is effective and necessary for me at home would be counterproductive at work.					
18	The problem-solving behaviours that work for me at home does not seem to be as useful at work.					

Section B

Please indicate **how often you have been using the strategies below in dealing with your work and family demands,** by checking [√] one of the boxes for each item.

No	Items	Never	Seldom	Occasionally	Often	Always
1	Planned, scheduled, and organized carefully.					
2	Set priorities so that the most important things get done.					
3	Openly discussed conflicts in delegating household chores and child care with spouse.					
4	Tried to be very organized so that you could keep on top of things.					
5	Talked to others to find a solution to your problems.					
6	Enlisted assistance such as babysitters or domestic helper to do daily household chores.					
7	Coordinated your household work schedule with your spouse and children.					
8	Tried to manage household chores and child care more efficiently.					
9	Told yourself that those difficulties were not worth getting upset about.					

10	Accepted the situation because there was little you could do about it.					
11	Tried to put each task out of your mind when not engaged in it.					
12	Tried to make yourself feel better by eating, exercising or shopping.					
13	Tried to see the positive side of the situation.					
14	Told yourself that time takes care of situations.					
15	Reminded yourself that work was not everything.					
16	Tried not to get concerned about it.					

Section C

Please indicate **your work and family involvement** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	When things are going well at work, my outlook regarding my family responsibilities is improved.					
2	Being in a positive mood at work helps me to be in a positive mood at home.					
3	Being happy at work improves my spirit at home.					
4	Having a good day at work allows me to be optimistic with my family.					
5	Skills developed at work helps me in my family life.					
6	Successfully performing tasks at work helps me to more effectively accomplish family tasks.					
7	Behaviours required by my job lead to behaviours that assist me in my family life.					
8	Carrying out my family responsibilities is made easier by using behaviours performed at work.					

9	Values developed at work make me a better family member.					
10	I apply my workplace values in family situations.					
11	Values that I learn through my work experiences assist me in fulfilling my family responsibilities.					
12	When things are going well in my family life, my outlook regarding my job is improved.					
13	Being in a positive mood at home helps me to be in a positive mood at work.					
14	Being happy at home improves my spirits at work.					
15	Having a good day with my family allows me to be optimistic at work.					
16	Skills developed in my family life help me in my job.					
17	Successfully performing tasks in my family life helps me to more effectively accomplish tasks at work.					
18	Behaviours required in my family life lead to behaviours that assist me at work.					
19	Carrying out my work responsibilities is made easier by using behaviours performed as part of my family life.					
20	Values developed in my family make me a better employee.					
21	I apply my family values in work situations.					
22	Values that I learn through family experiences assist me in fulfilling my work responsibilities.					

Section D

Please indicate **how often you have been experiencing the following conditions over the past three months** by checking [√] one of the boxes for each item.

No	Items	Never	Rarely	Sometimes	Often	Very Often	All the time
1	Felt capable of making decision about things.						
2	Been able to enjoy your normal day-to-day activities.						

3	Been able to face up to problems.						
4	Been feeling reasonably happy, all things considered.						
5	Felt you couldn't overcome your difficulties.						
6	Been feeling unhappy and depressed.						
7	Been losing confidence in yourself.						
8	Been thinking of yourself as a worthless person.						

Section E

Please indicate **your intention in looking for other job opportunities** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I will probably look for a new job in the near future.					
2	At the present time, I am actively searching for another job in a different organisation.					
3	I do not intend to quit my job.					
4	It is unlikely that I will actively look for a different organisation to work for in the next year.					
5	I am not thinking about quitting my job at the present time.					

Section F

Please indicate **how satisfied you are with your job** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	All in all, I am satisfied with my job.					
2	In general, I don't like my job.					
3	In general, I like working here.					

Section G

Please indicate **how satisfied you are with your family** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	In most ways my family life is close to my ideal.					
2	The conditions of my family life are excellent.					
3	I am satisfied with my family life.					
4	So far, I have gotten the important things I want from my family life.					
5	I am generally pleased with the quality of my family life.					

Section H

Please indicate **how satisfied you are with your life (in general)** by checking [√] one of the boxes for each item.

No	Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	In most ways, my life is close to my ideal.					
2	The condition of my life is excellent.					
3	I am satisfied with my life.					
4	So far I have gotten the important things I want from life.					
5	I am generally pleased with the life I lead.					

Section I

Please indicate **how you are feeling (in general) over the past three months** by checking [√] one of the boxes for each item.

	Very slightly or Not at all	A little	Moderately	Quite a bit	Extremely
Distressed					
Upset					
Guilty					
Scared					
Hostile					

Irritable					
Ashamed					
Nervous					
Jittery					
Afraid					

Section J

Please answer the following questions.

1. How old are you?
[_____ years]

2. How do you describe your ethnicity?

Malay	Chinese	Indian	Others

Others (please specify) **[_____]**

3. How do you describe your marital status?

Single	Married	Widow	Divorced	Others

Others (please specify) **[_____]**

4. How long have you worked for this organization?
[_____ years] [_____ months]

5. How long have been in your current job?
[_____ years] [_____ months]

6. What is your highest level of educational attainment?

Primary education	
Secondary education (PMR/SPM/STPM)	
Diploma	
Bachelor degree (Bsc, BA or etc)	
Postgraduate degree/diploma (eg MSc, MA, PhD, etc)	

This is the end of the questionnaire. Thank you for your participation.

Please return the questionnaire in the envelope provided.

APPENDIX 3

Differences in regression analysis for the cases with and without multivariate outliers for Times 1 and 2

Predictors	Outcome	Beta (standardized)		*p*	
		With outliers	Without outliers	With outliers	Without outliers
Time 1		**(*n* = 740)**	**(*n* = 705)**	**(*n* = 740)**	**(*n* = 705)**
TBWFC	Social Dysfunction	0.01	-0.01	0.99	0.97
ABFWF		-0.03	0.01	0.55	0.80
SBWFC	Anxiety/Depression	0.07	0.09	0.13	0.04
BBWFC	Intentions to leave	-0.01	0.01	0.93	0.81
TBFWC		0.01	-0.01	0.88	0.73
SBFWC		0.10	0.07	0.02	0.09
EA		0.01	-0.01	0.96	0.78
PR		-0.09	-0.07	0.04	0.09
ABWFF		-0.01	0.01	0.92	0.78
VBWFF		0.01	-0.02	0.91	0.71
ABFWF		0.01	-0.02	0.84	0.65
TBFWC	Intentions to stay	-0.01	0.01	0.88	0.98
EA	Job satisfaction	-0.02	0.02	0.58	0.96
PR		0.10	0.07	0.02	0.08
BBWFF		0.06	-0.01	0.31	0.79
TBWFC	Family satisfaction	-0.01	0.04	0.86	0.93
VBWFF	Life satisfaction	0.10	0.12	0.09	0.04
Time 2		**(*n* = 210)**	**(*n* = 202)**	**(*n* = 210)**	**(*n* = 202)**
SBWFC	Social Dysfunction	-0.20	-0.16	0.03	0.07
BBWFF		0.22	0.30	0.10	0.03
VBFWF		-0.07	0.02	0.96	0.87
BBWFC	Anxiety/Depression	0.01	-0.02	0.88	0.77
SS		-0.12	-0.15	0.09	0.03
PR		0.02	-0.03	0.79	0.72
VBWFF		-0.01	0.05	0.93	0.63
BBWFC	Intentions to leave	0.01	-0.11	0.90	0.31
BBFWC	Intentions to stay	0.02	-0.01	0.85	0.88
SBWFC	Job Satisfaction	-0.16	-0.18	0.09	0.04
SS		-0.01	0.03	0.94	0.70
BBFWF		0.03	-0.01	0.83	0.96
BBWFC	Family Satisfaction	-0.01	0.01	0.98	0.96
PPS		0.15	0.13	0.04	0.08
VBFWF		-0.02	0.05	0.99	0.70
SBWFC	Life Satisfaction	-0.19	-0.16	0.03	0.06
SBFWC		0.15	0.19	0.07	0.02
BBFWC		0.04	-0.02	0.67	0.83
ABWFF		-0.18	-0.13	0.05	0.16

Note: TBWFC (time-based work-to-family conflict), SBWFC (strain-based work-to-family conflict), BBWFC (behaviour-based work-to-family conflict), TBFWC (time-based family-to-work conflict), SBFWC (strain-based family-to-work conflict), BBFWC (behaviour-based family-to-work conflict), PPS (planful problem-solving), SS (support-seeking), EA (escape-avoidance), PR positive reappraisal), ABWFF (affective-based work-to-family facilitation), BBWFF (behaviour-based work-to-family facilitation), VBWFF (value-based work-to-family facilitation), ABFWF (affective-based family-to-work facilitation), BBFWF (behaviour-based family-to-work facilitation), and VBWFF value-based work-to-family facilitation).