Work-Life Balance: A study on the effect of conflict and facilitation amongst life roles

on psychological well-being and quality of life of individuals in Hong Kong

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Abstract

Objectives. This study investigates the conflict and facilitation among three different categories of life roles, namely work, family/friendship, leisure/recreation, and how these affect psychological well-being.

Method. A sample of 143 working people in Hong Kong responded to a questionnaire that analyses the conflict and facilitation among work, family/friendship, and leisure/recreation roles and its influence on their psychological well-being.

Results. Results of multiple regression analyses revealed that conflict and facilitation from non-work roles examined in this study, i.e. family/friendship and leisure/recreation, are reliable predictors of psychological well-being. Non-work role-based facilitation that is the enriching effects of engagement in family/friendship and leisure/recreation roles has been found to be significant in promoting psychological well-being of individuals. Significant negative relationship has been shown between non-work role-based conflict and psychological well-being, i.e. interference from family/friendship and leisure/recreation roles to the performance of other roles, has lower psychological well-being. The overall effect of the four predictors, non-work and work role-based conflict and facilitation in predicting the overall life satisfaction of individuals was showed to be significant but no significant effect was found on individual predictor. Non-work and work role-based conflict and facilitation were not reliable predictors for satisfaction with family, friendship and work domains in the sample of this study. Non-work role-based conflict and work role-based facilitation were found to be significant predicators of satisfaction with leisure domain. Non-work role-based conflict was showed to be negatively affecting

leisure satisfaction. Work role-based facilitation was found to predict leisure satisfaction in a positive manner.

Discussion. Work-life balance has often been discussed in terms of work-family conflict; in particularly work-to-family conflict as higher levels of work-to-family conflict was reported than family-to-work conflict. According to the results of this study, it is the influence of non-work roles which affect the psychological well-being and satisfaction of individuals in leisure role. Current efforts by individuals and organizations in enhancing the workplace to make it more facilitative to the performance of non-work roles may not indeed beneficial to individuals in terms of promoting their psychological well-being. Review in the present focus of work-life discussion on how non-work lives can be enhanced by reducing conflict and increasing facilitation to better fit with work life was called for so as to promote the psychological well-being of individuals. Further studies should be carried out to examine whether the findings are only pertinent to Hong Kong people.

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Introduction

Work-life balance has become a hot issue around the world as well as Hong

Kong (Riedmann et al., 2006; Hogarth et al., 2000; Work-Life Balance Project, 2004;

Mahtani, 2006). It has been considered as one of the important issues on the political

agenda of the European Union in attracting more people into employment and

retaining them so as to increase the employment rates (Riedmann et al., 2006). In

United Kingdom, a high level of support has been found for work-life balance. Many

employers thought people work best when they can strike a balance between work and

the rest of their lives. Moreover, people should be able to balance their work and

home lives in the way they desire (Hogarth et al., 2000). In the United States,

work/life balance has accounted for more than two-thirds of work characteristics that

have been rated by surveyed companies to be "absolutely essential" to attracting and

retaining talent (Michaels, Handfield- Jones & Axelrod, 2001).

A survey conducted in Hong Kong on work-life balance has indicated over 80

per cent of employees being interviewed considered work-life balance as important to

them though only less than 50% per cent of them reported they were able to achieve it

(Mahtani, 2006). Hong Kong people have been found to have the second longest

working hours amongst seventy one cities around the world, that is around 2,231

hours per year (UBS, 2006). The survey on work-life balance in Hong Kong also

reported 61% of employees being interviewed worked overtime each week with an

average weekly hour of 51.3 which is about eight percent more than what is given in

their employment contracts and one fourth over what is stipulated by the International

Labour Organization. Over 70% of the surveyed employees indicated they have spent

less than 2 hours each day on personal or private activities, such as meeting friends

and engaging in activities for leisure like sports and traveling, with 11% spending

virtually no time on these activities. Personal time and leisure activities have been

considered as luxuries to most full time employees in Hong Kong (Mahtani, 2006).

Literature Review

2.1 Factors for Increasing Concern for Work-Life Balance

Over the past decades, balance between work and other domains of life has been made difficult by the rapid changes in technology, business environment and the demographic of the workforce. It has become a challenge for modern employees to achieve work-life balance without jeopardizing their well-being and satisfaction with aspects of their lives and their overall quality of life. Technological advancements, such as mobile phones, e-mails and blackberries, have enabled people to conduct work anytime and anywhere, whether they are flying on planes heading for family holidays or sitting at hospitals waiting for medical check-up. Work demands have intruded into other domains of life. Furthermore, the widespread use of computers at work as well as households has blurred the boundaries between work and personal or family life as people are taking their work home and personal and/or family errands can be run on computers in the offices through internet.

Competition in the modern marketplace is fiercer than ever. Businesses are competing globally and evolving continuously so as to meet the demands and expectations of customers. The resulting changes in the workplace have driven employees to increase their productivity and flexibility in the performance of work. Employees are expected to put their work over personal life (Perrons, 2003; Simpson, 2000; White et al., 2003). Long working hours has become a norm in many countries worldwide (Lee et al., 2007) which has been found to be attributable to increased workload, long hours culture and job insecurity (Kodz et al., 2002).

Over the past decade, women's employment has increased substantially. In some developed economies, women occupied half or more of the workforce (International

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Labour Office, 2007). In the year 2005, about 88 million women between the age of

20 to 64 were employed in the United States which was 50.8% of the total workforce

(US Census Bureau, 2005). 70.9% of the women participated in the labour force in

2005. In June 2005, the numbers of men and women in employment in the United

Kingdom were similar (National Statistics Online, 2006) with the employment rate for

women reaching 70 per cent (National Statistics Online, 2006). In New Zealand,

women's participation in the labour market was 62.1% compared to 57.5% ten years

ago (Statistics New Zealand, 2007). In Hong Kong, 1.6 million woman workers were

employed in the labour market and the women's labour force participation rate was

52.7% (Census and Statistics Department, 2007). Women's employment opportunities

have surged as a result of the increasing education levels of women. As women are

occupying increasingly role in the employment market, dual-earner couples who are

more likely to share household, childcare and eldercare responsibilities (Greenhaus et

al., 2000) have become rampant. Men are as vulnerable as women to the challenge of

fulfilling the demands of work, and parental or filial responsibilities without the

disruption from each other.

Further "tertiarization" of global economies i.e. the expanding of service

industries, has engaged women in jobs with long working hours which are

traditionally occupied by them e.g. retail sales, teachers, social workers and personal

services (National Statistics Online, 2006). Women in these occupations find it more

difficult to cook for their families or talk to their children after work due to their late

punch-out hours or shift work schedules. It poses greater difficulties for working

couples/parents to balance between work and family and personal lives.

2.2 Work-Life Balance

Work-life balance has been defined as "a satisfying, healthy, and productive life that includes work, play, and love; that integrates a range of life activities with attention to self and to personal and spiritual development; and that expresses a person's unique wishes, interest and values. It contrasts with the imbalance of a life dominated by work, focused on satisfying external requirements at the expense of inner development, and in conflict with a person's true desires." (Kofodimos, 1993, p.xiii). While the definition of work-life balance has embraced play besides love and work, much of the previous literature on work-life balance has focused on the work-family interface (Aryee & Luk, 1996; Burke & Greenglass, 1987; Greenhaus & Beutell, 1985; Lambert, 1990; Voydanoff, 1988; Warren & Johnson, 1995).

Researchers have developed a number of mechanisms linking work and family: spillover, compensation, segmentation, resource drain, congruence, and work-family conflict (Burke & Greenglass, 1987; Evans & Bartolome, 1984; Lambert, 1990; Payton-Miyazaki & Brayfield, 1976; Repetti, 1987; Staines, 1980; Zedeck, 1992). Among them, work-family conflict has been the most widely studied mechanism which has been considered as role conflict (e.g. Greenhaus & Beutell, 1985; Marks & MacDermid, 1996; Voydanoff, 1988; Warren & Johnson, 1995; Williams et al., 1991). Kahn et al. have defined role conflict as the "simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other" (1964, p.19). The sets of opposing pressures have arisen as a result of participation in multiple life roles in which membership in one organization is in conflict with membership in other groups.

Work-family conflict as "a form of interrole conflict in which the role pressures

from work and family domains are mutually incompatible in some respect"

(Greenhaus & Beutell, 1985, p.77) has been conceptualised by Frone (2003) as

bidirectional. It occurs when role demands in one domain interfere with the demands

of a role in another domain (Greenhaus & Beutell, 1985; Kahn et al., 1964). Demands

and responsibilities from work role, such as overtime or take-home work can interfere

with family life or in conflict with the demands of family, making it difficult for

individuals to fulfill their familial responsibilities. This is usually known as work to

family conflict (Frone et al., 1992a; Greenhaus & Beutell, 1985; Netemeyer et al.,

1996). On the other hand, demands from family live can also interfere with work life

in the sense that attending to family demands and responsibilities, such as household

chores, eldercare and/or childcare responsibilities can make it hard for individuals to

fulfill their work demands, that is commonly known as family to work conflict (Frone

et al., 1992a; Netemeyer et al., 1996; Zedeck, 1992). Conflict occurs as a result of an

individual's participation in one's role as a worker and the concurrent membership in

the family as a husband or wife, son or daughter, and father or mother.

The bi-directional nature of work-family conflict has rested on the scarcity

hypothesis. The scarcity hypothesis argues that people have fixed amounts of

physiological and psychological resources and they have to make tradeoffs between

competing demands of different roles for their time and energy (Frone et al., 1992a;

Greenhaus & Parasuraman, 1986; Pleck; 1977, 1985) which influence the quality of

experiences in the roles. For example, excessive work time and schedule has been

found to create strain that triggers stress symptoms (Pleck et al., 1980). Likewise,

energy and other resources devoted to the participation in one's role may make it

difficult to participate in another role by interfering with the level of energy that can

be devoted to the other role (Crouter et al., 1993; Piotrkowski, 1979).

Work-family conflict has been showed to relate to greater psychological distress (Burke & Greenglass, 1999; Kelloway et al., 1999; Parasurman & Simmers, 2001) and has also reported to have adverse effects on the psychological well-being of individuals (Allen et al., 2000; Aryee et al., 1999a; Felstead et al., 2002; Frone et al., 1997; Greenhaus & Beutell, 1985; Martens et al., 1999; Kossek & Ozeki, 1998; Pleck et al. 1980; Pisarski et al., 1998; Sparks et al., 1997; Repetti, 1987; Thomas & Ganster, 1995). Kahn et al. (1964) have identified work-family conflict as a significant source of strain for nearly one third of the men in their national sample.

Kossek and Ozeki (1998) have reported a significant negative relationship between all forms of work-family conflict and both life and job satisfaction (Bedeian et al., 1988; Burke, 1988; Frone et al., 1992a; Greenhaus, 1988; Parasuraman et al., 1992; Perrewe et al., 1999; Rice et al., 1992). Apart from its impact on work domain, work-family conflict has been found to have a negative impact on the quality of employees' family life, such as marital satisfaction (Gutek et al., 1991), relationships with their children and spouses (Duxbury & Diggins, 2001).

In contrast to the scarcity hypothesis which has concentrated on the negative outcomes of role engagement, Sieber (1974) has proposed the enrichment perspective in that engagement in multiple roles, or role accumulation provides access to various resources that can be utilized by individuals across various role performances. Marks (1977) argued that human energy is not finite. Participation in one role may lead to the expansion of energy and thus people can find energy for things they like doing. Frone (2003) has suggested that work-family balance included not only the bidirectional forces of work-family conflict. It also encompasses the positive influence of one role

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to another (Repetti, 1987). Individuals' engagement in one domain may lead to positive emotional response rather than negative response or strain (Verbrugge, 1986; Gove & Zeiss, 1987; Stephens et al., 1997).

The extent to which individuals' participation in one life domain (e.g. work) may bring resources, pleasurable and enriching experiences to another role (Marks, 1977; Thoits, 1991; Barnett & Hyde 2001), or is made easier by the skills, experiences, and opportunities gained by their participation in another domain (Frone, 2003; Grzywacz, 2002a) was commonly known as work-family facilitation.

Similar to the operation of work-family conflict, work-family facilitation is bidirectional in that it involves both work-to-family facilitation and family-to-work facilitation. Work has provided financial and other resources which enabled people to support and be more functional in dealing with problems in family. Family, on the other hand, offers emotional support that buffer stress arising from work. As Rothbard (2001) has confirmed that both negative emotions (work-family conflict) and positive outcomes (work-family facilitation) can result from engagement in both work and family roles, the positive and negative effects of work-family interface were not two opposite ends of a continuum (Greenhaus & Parasuraman, 1999).

Work-family facilitation has been found to be correlated with psychological distress. Individuals who occupied multiple roles (Thoits, 1983; 1986; Wethington & Kessler, 1989) have been found to have lower psychological distress. Ruderman et al. (2002) have showed that commitment to multiple life roles was positively related to feelings of psychological well-being, organizational commitment, job and family satisfaction (Kirchmeyer, 1992a; 1992b, Tompson & Werner, 1997; Wayne et al., 2004).

2.3   Leisure Role to Work-Life Balance

Leisure has been considered as beneficial to individuals. It is the context that offers the greatest opportunity to be self-determined and intrinsically motivated to engage in activity. Motives for leisure, such as relaxation, compensation, escapism, and independence have been identified as stress-reducing (Coleman, 1993; Coleman & Iso-Ahola, 1993; Doyle et al., 2003; Driver et al., 1991; Iso-Ahola & Park, 1996; Iwasaki & Smale, 1998; Iwasaki & Mannell, 2000a, 2000b; Trenberth & Dewe, 2002). People participated in leisure time exercise was found to be more satisfied with their life and happier than nonexercisers at all ages (Stubbe et al., 2006).

Leisure, in its companionate and friendship forms through social activities, has been found to provide feelings of social support and decrease sense of loneliness and isolation of individuals (Coleman & Iso-Ahola, 1993). Involvement in leisure, such as volunteerism, mentoring, and creative activities provides a context in which to discover strengths and capacities, as well as a context in which to be of service to others making a contribution to the world (Iso-Aholo & Weissinger, 1984). Interaction among leisure, work and family roles are not unidirectional. Work and family may provide resources, such as money, skills and emotional support that facilitate participation of leisure role.

Besides enriching effects, conflict among leisure, family and work roles may be evidenced. From the results of the 1977 Quality of Employment Survey, Staines & O'Connor (1980) have discovered that the most common complaints of workers who reported conflict between work and free time activities were excessive amounts of work, work scheduling, energy exhaustion or other time conflicts which prevented them from spending desired time in leisure activities. Demands from family may

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compete with leisure role for time, energy and financial resources which triggered conflict among leisure, family and work roles.

As work-life balance has been referred to a satisfying, healthy and productive life with work, play and love (Kofodimos, 1993), the inclusion of leisure role in work-life study has bee called for. Greenhaus et al. have argued for "an examination of the broader concept of work-life balance would require assessments of time, involvement, and satisfaction on a more diverse set of roles, such as leisure, self-development and community membership. It may be useful to study the balance between work and the aggregate of other life roles as well as the balance between pairs of specific roles" (2003, p.527). Though leisure role has been examined previously (Staines & O'Connor, 1980), it has not been studied extensively in eastern cultures, especially in Hong Kong.

So, the purpose of this study was twofold. First, it was to test whether the broadening of the study of work-life balance to include leisure in the dynamic interaction among different life roles, i.e. work, family/friendship, and leisure/recreation, that is the conflict and facilitation among multiple life roles, will benefit the study of work-life balance more. It is to verify whether leisure role should be studied with the aggregate of other life roles or independently as a separate role in the future.

While Neulinger (1974) has defined leisure as perceived freedom, intrinsic motivation, and noninstrumentality which might be possible in many realms of life, studies have showed that family and leisure are related and are both distinct from the work domain (Kelly, 1978; Kelly & Snyder, 1991). For example, the nurturing and developmental aims of parenting are often carried out in the contexts of play.

Strengthening and expressing the bonds of family and friendship are a central aim of much leisure engagement (Cheek & Burch, 1976). Moreover, Aryee et al. (1999a) have found cultural norms as one of the factors affecting the working of work-family interface. While Hong Kong culture is different from that of the United States (Hofstede, 1980), one of the distinctive differences in the culture of Hong Kong from western cultures is people's ideology of family. Family is deemed as the fundamental unit of society. It is the responsibility of members in the family to maintain and preserve the household. People perceived themselves in terms of membership in family and therefore often put family interests above the interests of their own. Therefore, it is hypothesized that leisure role being the interest of an individual is likely to succumb to family interests by Hong Kong people. As a result, leisure role might not come out to be distinctive from family role and is to be studied together with family role.

The second purpose was to investigate the effect of the interplay of the work and non-work roles on psychological well-being and quality of life of individuals. While conflict between work and family has been indicated to lower psychological well-being of individuals (Allen et al., 2000; Aryee et al., 1999b; Felstead et al., 2002; Frone et al., 1997; Greenhaus & Beutell, 1985; Martens et al., 1999; Kossek & Ozeki, 1998; Pleck et al. 1980; Pisarski et al., 1998; Sparks et al., 1997; Repetti, 1987; Thomas & Ganster, 1995), work-family facilitation was found to increase psychological well-being (Kirchmeyer, 1992a; 1992b). Previous and recent operationalizations of work-family balance (Barnhett & Baruch, 1985; Marks & MacDermid, 1996) suggested that work-family conflict and work-family facilitation simply offset each other in a one-to-one fashion. This study will also examine whether

conflict and facilitation amongst work and non-work roles will exert counter effects in

an equal way on the psychological well-being of Hong Kong adults.

Method

3.1 Participants

143 local adults Chinese living in Hong Kong with full-time employment were invited to take part in this study based on a convenience sampling. Participants were invited by the author or friends of the author to participate in the study. 39.2% of the participants were male and 60.8% of them were female with an age range of 20 – 59. Majority of them were within the ages of 20-39, 20% aged between 20-29 and 59% aged between 30-39. 16.8 and 3.5 per cent were in the ages of 40-49 and 50-59 respectively. About sixty percent of the respondents were married or cohabitated and 39.2% of them were single with one of them being divorced. The descriptive statistics for the demographic of participants are presented in Table 1.

3.2 Procedure

Participants were asked to complete a self-administered questionnaire (Appendix A) which was in Chinese. A cover letter which explained the purpose of the study, assured the confidentiality of the responses, and directed the respondents to return the questionnaire directly to the author or to the author through friends/colleagues of the author who distributed the questionnaire to them. It was emphasized that there was no time limit and the participants were advised to provide the answers which first came to their mind. With all the participants being local Chinese living in Hong Kong, they were fully versatile in reading written Chinese.

3.3 Instruments

Inter-role Relations Scales. Participants were instructed to respond to a questionnaire

on Inter-role Relations Scales which was adapted from the Intergoal Relations

Questionnaire (IRQ, Riediger & Freund, 2004) since no well-established scales have

been published on the measurement of conflict and facilitation of work,

family/friendship and leisure/recreation roles. Intergoal Relations Questionnaire

measures intergoal conflict and facilitation by pairwise combinations of goals which

is similar to the conceptualization that conflict and facilitation occurred among roles

in a bi-directional way, i.e. work role can affect or enrich family/friendship role and so

as family/friendship can influence work role in a positive and negative way. 6

pairwise combinations of questions were used to measure conflict and facilitation

among the various life roles, work, family/friendship, leisure/recreation with 6

questions for each pair of roles. The first fourth questions consisted of 4 inter-role

conflict items which measured conflict in terms of time, energy, financial resources

and incompatible behavior which is similar to the conceptualization of Greenhaus &

Beutell of the time-based, strain-based and behavior-based conflict (1985). Inter-role

facilitation scales were made up of 2 questions which assess facilitation of one role to

another role in terms of enriching behavior and instrumentality of one role to another.

Using a five-point Likert rating with values ranging from 1 (never/very rarely or not

at all true) to 5 (very often or very true), participants responded to 36 questions (for

item wordings, see Appendix A) by selecting the rating which best describes the

current state in their lives.

Psychological Well-Being. The 3-item Ryff's Scales of Psychological Well-Being

scales (Ryff, 1989; Ryff & Keyes, 1995; Chinese translation by Liu & Fung, 2005)

cover six dimensions of psychological well-being: self-acceptance, positive relations

with others, autonomy, environmental mastery, purpose in life and personal growth. These facets have been demonstrated to join together by a single higher-order factor interpreted as positive psychological functioning (Ryff & Keyes, 1995). The three-item scales include both positive and negative worded items selected to retain the conceptual breadth of each of the longer parent scales rather than maximizing internal consistency. The different dimensions are mixed together into a single 18-item measure in relation to which respondents are asked to indicate whether a statement describes them accurately along a five-point format with response alternatives including strongly agree or strongly disagree, moderately or slightly agree and slightly disagree. The Cronbach's alpha coefficient for the present sample was 0.83. Scores were computed for the different dimensions of psychological well-being with higher scores indicating higher levels of psychological well-being (Ryff & Keyes, 1995).

Life Satisfaction. The life satisfaction scale measures an individual's perceptions regarding the quality of his or her life in general. The five-item scale, Satisfaction with Life Scale, developed by Diener et al. (1985) was used. The items were rated on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). The Cronbach's alpha coefficient for this scale was 0.90. An example of items from this scale is "I am satisfied with my life".

Domain satisfaction. Respondents rated the degree to which they were satisfied in specific domains of life including family, friendship, job and leisure/recreation on a Cantril's self-anchoring ladder from 1 (Cantril, 1965) the least ideal to 11 the most

ideal asking how satisfied the participants were with current states of their life

domains.

Results

Before proceeding to further analysis, factor analysis was conducted to see whether the inter-role conflict and facilitation items could be reduced. Since there is no a priori hypotheses regarding the number of factors likely to emerge from the Inter-role Relations Scales in the respondents and the inter-role conflict and facilitation were found to be correlated (Greenhaus & Beutell, 1985; Grzywacz, 2000), a principal-component factor analysis with a direct oblimin rotation using all items of the Inter-role Relations Scales was used to extract the factor solution. The solution yielded four factors that exceeded the criterion eigenvalue of 1.00 accounting for 70.92% of the total variance. Items were interpreted as part of a factor if their factor loading was higher than .60 and clearly loaded onto only one factor, indicating simple structure. The number of factors was confirmed using a combination of several methods, including a minimum eigenvalue of 1.0, examination of the scree plot, and analysis of the factor loadings and residual variance. Each of these methods supported the application of a four-factor solution. This solution was then subjected to a direct oblimin rotation to minimize the overlap between different factors. Composite scores were formed by averaging the items scores for the 4 factors, labeled as non-work roles-based facilitation, work role-based conflict, non-work roles-based conflict and work role-based facilitation.

Factor 1 had an eigenvalue of 3.88 and accounted for 32.31% of the variance. It was composed of items on family/friendship-to-work facilitation, family/friendship-to-leisure/recreation facilitation, leisure/recreation-to-work facilitation, leisure/recreation-to-family/friendship facilitation and the factor loadings were all ≥.64. Factor 1 indicated non-work roles-based facilitation and the Cronbach's

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alpha was .85.

The eigenvalue of Factor 2 was 2.29 and it accounted for 19.11% of the variance. It was consisted of items on work-to-family conflict and work-to-leisure/recreation conflict subscales and all factor loadings ≥ .89. Factor 2 was labeled work role-based conflict and has an acceptable level of reliability (α = .90).

The third factor had an eigenvalue of 1.32 and it accounted for 10.97% of the variance. It was composed of items on family/friendship-to-work conflict, family/friendship-to-leisure/ recreation conflict, leisure/recreation-to-work conflict, and leisure/recreation-to- family/friendship conflict subscales. Factor 3 represented non-work roles-based conflict. The factor loadings of all items ≥.69 and the reliability (Cronbach alpha) of Factor 3 was .93.

The eigenvalue of the fourth factor was 1.02 that accounted for 8.53% of the variance. It was composed of the work-to-family/friendship facilitation and work-to-leisure/recreation facilitation. Factor 4 was to be termed as work role-based facilitation. The Cronbach's alpha was .75 with the factor loadings ≥.74. The factor loadings for retained four factors of Inter-role Relations Scales are depicted in Table 2. The means, standard deviations and correlations of the four composites and dependent variables are illustrated in Table 3.

From the results of Pearson correlations reported in Table 3, non-work roles-based facilitation was found to be significantly correlated with non-work roles-based conflict (r = .31, $p < .01$) and work role-based facilitation (r = .51, $p < .01$). Moreover, non-work roles-based conflict was showed to be significantly correlated with work role-based conflict (r = .30, $p < .01$) and work role-based facilitation (r = .32, $p < .01$) significantly.

The four composites of the Inter-role Relations Scales were indicated to be correlated to psychological well-being. Non-work roles-based ($r = .20$, $p < .01$) and work role-based ($r = .17$, $p < .05$) facilitation were showed to be positively correlated with psychological well-being. Non-work roles-based ($r = - .30$, $p < .01$) and work role-based ($r = - .19$, $p < .05$) conflict were found to be negatively correlated with psychologically well-being.

Non-work roles-based ($r = .21$, $p < .05$) and work role-based facilitation ($r = .20$, $p < .05$) were showed to have positive relationship with satisfaction to life significantly. Among the four Inter-role Relations Scales composites, only work role-based facilitation was found to be significantly correlated with family satisfaction ($r = .18$, $p < .05$) and job satisfaction ($r = .23$, $p < .01$) in a positive manner. Non-work roles-based conflict has a significant negative relationship with friendship satisfaction ($r = - .17$, $p < .05$) and leisure satisfaction ($r = - .22$, $p < .01$). Besides non-work roles-based conflict, significant relationship was found between work role-based conflict and leisure satisfaction ($r = - .22$, $p < .01$), and work role-based facilitation and leisure satisfaction ($r = .18$, $p < .05$).

Simultaneous multiple regression analyses were performed using the four composites, work role-based, non-work roles-based conflict, work role-based facilitation and non-work roles-based facilitation. The dependent variables were Psychological Well-Being scale, Satisfaction with Life Scale and domain satisfaction. The F value for predicting psychological well-being was $F(4, 138) = 9.28$, $p < .005$. The R^2 was .21. The four composites of Inter-role Relations Scales were significant in predicting psychological well-being of individuals. As some of the composites were significantly correlated with one another, multicollinearity diagnostic statistics were

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further produced to investigate the issue of multicollinearity. The tolerance value of all independent variables was > .70 and therefore multicollinearity has no harmful impact on the results.

Non-work roles-based facilitation and non-work roles-based conflict were found to have significant positive (β = .24, p< .025) and negative relationship (β = -.41, p< .005) with the Psychological Well-Being Scale respectively. Enriching effects from participation in non-work roles, that is family/friendship and leisure/recreation, were showed to be positively correlated with psychological well-being. On the other hand, the conflict arising from engagement of non-work roles to other roles was found to be negatively correlated with psychological well-being. Work role-based conflict and facilitation were found to be insignificant in predicting psychological well-being.

Non-work roles-based, work role-based conflict and facilitation were significantly related to Satisfaction with Life as a whole, F (4, 138) = 3.54, p< .025. The R^2 was .09. However, no significant effect was found with individual composite of the Inter-role Relations Scales.

The four composites of the Inter-role Relations Scales were not significant in predicting satisfaction with family, F (4, 138) = 2.20, p= .07, R^2 = .06, friendship F (4, 138) = 2.57, p= .04, R^2 = .07 and work domain F (4, 138) = 2.28, p= .06, R^2 = .06.

Non-work roles-based conflict was revealed to be significant in predicting leisure satisfaction (β = -.28, p< .005) in a negative way. The F value for predicting satisfaction with leisure/recreation domain F (4, 138) = 5.76, p< .005 and R^2 was .14. Work role-based facilitation was significantly in predicting satisfaction with leisure/recreation domain in a positive manner (β = .22, p< .025).

Contrary to the popular view that work is jeopardizing the psychological

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well-being, life satisfaction and triggering negative emotions of individuals,

work-based conflict has no significant influence on any of the dependent variables for

the present sample.

Discussion

The primary goal of this study was to examine the outcomes of the interplay of work, family/friendship and leisure/recreation roles and their relationship with psychological well-being and quality of life of individuals. According to the results of factor analysis, family/friendship and leisure/recreation roles are not distinctive in that conflict from family/friendship and leisure/recreation roles loaded on the same factor, which has been termed as non-work roles-based conflict and facilitation from family/friendship and leisure/recreation loaded on another factor which was named as non-work roles-based facilitation. Family/friendship and leisure/recreation roles are only aspects of individuals' non-work lives. Conflict and facilitation among work, family/friendship and leisure/recreation roles can be considered as conflict and facilitation of work role and non-work roles which were demonstrated by the four factors' results of the exploratory factor analysis.

From the findings of the multiple regression analyses, conflict and facilitation resulting from participation in work role, that is work role-based conflict and facilitation, have no significant effects on psychological well-being, overall life satisfaction and domain satisfaction of individuals except satisfaction with leisure. Only facilitation arising from engagement in work role, i.e. work role-based facilitation, was significant in promoting satisfaction with leisure. Non-work roles-based facilitation and conflict, that is the positive and negative influence of participation in non-work roles, were significant predicators of psychological well-being. Conflict from engagement in non-work roles, that is non-work roles-based conflict, was also found to be lowering satisfaction with leisure.

In the present sample of full-time employees in Hong Kong, results showed that

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family/friendship and leisure/recreation roles could be considered as the aggregate of nonwork lives which was consistent with the finding of Kelly (1978) and Kelly & Snyder (1991). Conflict and facilitation among work, family/friendship, and leisure/recreation roles indicated that relations among the life roles can be categoried into four characteristics: work role-based conflict, work role-based facilitation, non-work roles-based conflict and non-work roles-based facilitation. All of the measures demonstrated adequate internal consistency which created a four fold taxonomy of work-life balance.

Hong Kong is usually considered as a place where East meets West. People in Hong Kong have been subjected to the influence of collectivism, traditional philosophies of Confucianism and modernism of western civilization. The ideology of family has evolved into a "utilitarian familism" which is a tendency to place family interests above those of the individual and to structure social relationships so that furtherance of one's familial interests comes into priority (Lau, 1981). People put their personal lives behind for the promotion of family lives making the two lives closely intertwined in that family/friendship and leisure/recreation roles. It concurred with the results of factor analysis in that family/friendship and leisure/recreation roles were be viewed as two aspects of non-work lives which were different from work life.

Similar to the findings of previous research covered in the literature review that conflict arising from participation in work and non-work roles was to lower the psychological well-being of individuals and facilitation from engagement in work and non-work roles was likely to enhance psychological well-being of individuals. Non-work roles-based conflict and work role-based conflict were found to be affecting psychological well-being in a negative way and non-work roles-based

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facilitation and work role-based facilitation were shown to be positively enhancing the psychological well-being of individuals in this study. However, the significance of the effects of conflict and facilitation to psychological well-being were biased to the participation in non-work roles in the present sample. Only outcomes of participation in non-work roles were found to be significant predictors of psychological well-being.

Aryee et al. (1999a) have discussed that the economic realities of Hong Kong have placed self-interest and economic survival as the core concerns of people. People work to strive for economic means to maintain their families and therefore families endorses work and even advocates a strong commitment to work. This motivational drive for commitment to work results in a blurring of the work and family roles as commitment of work has been considered as a means to an end and the end is the family's financial security (Redding, Norman, & Schlander, 1994). People may consider work to be paramount to the maintenance or enhancement of family and work commitments may therefore take precedence over family demands. People and even families may be more accommodating to the stringent demands of modern days' work life and again for the sake of the betterment of families. As a result, conflict arising from work may have been taken for grant and therefore was not a significant factor in affecting psychological well-being of individuals. Although people depend on work for money which was a very large enrichment effect of work, Kasser & Ryan (1993; 1996) found that extrinsic rewards were not enough in enhancing people's psychological well-being. People who valued extrinsic goals were reported to have lower psychological well-being. So, people may not benefit from their engagement in work on the sole basis that they have economic rewards from their work. It has to be more to work than just money which enhances the psychological well-being of

individuals which can be studied further since it was outside the scope of the present study.

On the other hand, participation in non-work roles was found to be important in predicting psychological well-being of individuals. Non-work roles-based conflict, that is conflict arising from engagement in non-work roles was shown to have significant negative relationship with psychological well-being and satisfaction with leisure. Demands from non-work roles in terms of time, energy and other resources may put pressures on individuals which are affecting their performance of other roles were reported to lower psychological well-being of individuals. Absence of pressures from non-work lives can facilitate individuals to fulfill their work better which in the end was for the betterment of the families.

By the same token, non-work roles-based facilitation, that is the enriching effects from the participation in non-work roles generous additional resources that were lucrative to individuals' performance of work was likely to report higher psychological well-being as were evidenced from the significant findings of the multiple regression analysis on psychological well-being. As work mainly serve the purpose of supporting families of individuals in the Hong Kong society, positive effects from engaging in non-work lives, such as additional energy generated from engaging in family activities, emotional support from family members, and support from family members on household, familial, childcare and elder responsibilities will ease the tension experienced by individuals and enable individuals to be more focused and committed to work will certainly promote individuals' well-being.

Apart from predicting psychological well-being, non-work roles-based conflict was found to be a reliable predictor of leisure satisfaction. Non-work roles-based

conflict, that is conflict arising from engagement in non-work roles, was indicated to be affecting satisfaction with life in a negative manner. If demands of non-work lives which dominated by family demands were lower, people may be able to have more time, energy and other resources to engage in leisure/recreation activities which may help to ease the tensions of lives serving the stress-reducing purpose of leisure. People may report higher psychological well-being resultantly.

Work role-based facilitation was reported to be significant in predicting satisfaction with leisure as well. Work role-based facilitation, that is the enriching effects of engagement in work, has been found to be positive in promoting satisfaction with leisure. As people may not be able to find themselves time for leisure/recreation as reported from the results of the work-life balance survey (Mahtani, 2006) and self-determination was one of the key components of work (Kohn, 1990), people's satisfaction with leisure may be enhanced as far as work offers them the opportunity to be self-determined and intrinsically motivated to engage in activity which was the essence of leisure.

As covered in the literature review of this paper, conflict between work and non-work roles was likely to lower the psychological well-being and life satisfaction of individuals and facilitation between work and non-work roles was expected to enhance individuals' psychological well-being and life satisfaction. Findings of this study present some interesting results in that work role, regardless of the direction of its effect, was not considered to be significant in affecting psychological well-being and life satisfaction of Hong Kong individuals.

Current study, literature and initiatives on work-life balance have focused mainly on enhancing the workplace to make it more family friendly by actions such as

flexible time schedules, telecommuting, part-time employment and job sharing to make it more facilitative to individuals' family life and reducing the assumed intrusive effects of work to other domains of life. These measures may not be the solutions to the Hong Kong people on work-life balance. Instead it is the reduction in conflict from non-work lives which would enhance people's well-being. Ways to reduce the demands of non-work lives, mainly from family, to individuals on time, energy and other resources or behavior are more fruitful to the promotion of work-life balance in particular to Hong Kong people. Moreover, non-work roles-based facilitation, the positive effects of behavior in non-work lives, has been shown to be beneficial for psychological well-being of Hong Kong individuals. Increased attention can be given to behavior that is both beneficial to non-work and work lives so as to enhance individuals' psychological well-being.

Limitations

The study's findings should be qualified in light of its limitations. First, while the study analyses the relationships among work, family/friends, and leisure/recreation roles and psychological well-being, the study is limited by the lack of well-established instruments in measuring conflict and facilitation among interrole other than work and family. The instrument developed in this study is to be further validated and the findings presented in this study should be interpreted with caution of the dynamic relationships between work, family/friendship and leisure/recreation.

A second limitation is the lack of attention to the possible role played by evolving cultures and values to the issues of work-life balance. Over the past decade, Hong Kong has suffered from plaguing economic situations. Many work organizations have implemented enormous change initiatives in response to the new economic situations. Unemployment has become rampant for a while and job security has been one of the biggest concerns of people in Hong Kong. Whether the economic realities have brought forth changes to people's ideology of family, their orientations to work and family due to the changing cultures of the work environment are to be further investigated which in turn affect how people perceive conflict and facilitation between their work and non-work roles to be influencing their psychological well-being and quality of life.

Further limits to generalizability may stem from the sample being drawn from convenience sampling without an even distribution of participants in terms of demographic variables. Work-life flexibility may be different for different groups of people since people earning higher incomes may be in a better position to hire help to alleviate conflict they experience from participation in non-work roles, such as

performing household, childcare or eldercare duties. Further investigation was to be carried out as to whether people with different demographic characteristics are experiencing different levels of work-life conflict and facilitation, which make the present results may able to be generalized to other studies. Further research on the effects of demographic variables and using other sample size and sampling methods to provide greater generalizability is required.

The study adopts the work-family conflict and facilitation mechanism to investigate the interaction among the three life roles, work, family/friendship, leisure/recreation. It is worthwhile to review whether other mechanisms, such as spillover compensation, segmentation, resource drain, and congruence (Burke & Greenglass, 1987; Evans & Bartolome, 1984; Lambert, 1990; Payton-Miyazaki & Brayfield, 1976; Repetti, 1987; Staines, 1980; Zedeck, 1992) will generate more meaningful results for the dynamic interplay of work, family/friendship, leisure/recreation roles. Other variables, such as personality traits, e.g. optimism (Karademas, 2006) which mediate the effect of stress that is likely to arise from people's participation of multiple life roles, should be added so as to control for differences in personality traits.

Conclusion and Implications

With the idea of including leisure role in the study of work-life balance, the solution of factor analysis of this study indicated that leisure role intertwined with family role in being two aspects of the larger nonwork roles which are distinct from work role. It is to be further studied whether the findings were due to the "utilitarian familism" ideology of Hong Kong people, that is the idea of putting family above all interests of individuals, or the classification will be applicable to individuals in western cultures as well.

Work role-based conflict and facilitation were found to be statistically insignificant in affecting psychological well-being of individuals. Non-work roles-based conflict and facilitation was found to be a strong predicator for psychological well-being. Conflict arising from people's participation in non-work roles was found to be undermining psychological well-being of individuals and facilitation arising from people's engagement in non-work roles, that is the enriching effects of non-work lives, was revealed to be positively enhancing individuals' psychological well-being. Non-work roles-based conflict and work role-based facilitation were found to be significant predictors of people's satisfaction with leisure/recreation. Non-work roles-based conflict was showed to jeopardize people's satisfaction with leisure/recreation whereas work role-based facilitation was found to be promoting people's satisfaction with leisure/recreation.

Despite the limitations of this study, the findings of this study produce several implications. First, most of work-life balance literature has not included the leisure role in the investigation of the conflict and facilitation among different life roles. The inclusion of leisure role in this study in the efforts to see whether leisure role plays an

important part in the dynamic interaction of daily life. Though results of this study did not provide evidence for the differentiation between family/friendship and leisure/recreation role which might be attributable to the salient culture of Hong Kong society in that people are putting their families first above their personal lives, the inclusion of leisure role to work-life balance study might not be necessary as people in fact perceive family and personal lives together as a collective non-work lives. So, people in reality have to juggle between work and non-work roles.

Secondly, this study contributes to work-life balance study in that by examining conflict and facilitation forces jointly, this study highlights the central role conflict and facilitation among work, family/friendship and leisure/recreation instead of just focusing on the negative outcomes of work-life interface, i.e. conflict between work and non-work roles. By breaking free the inherently constrained notion of engagement in work and other life roles having only negative effects on people's psychological well-being, this study analyses a fuller picture of work-life balance interface.

While much of present study and policy initiatives in managing work-life balance issues has focused on making the workplace more family friendly, results of this study might suggest the opposite. Individuals and organizations may now have to think of ways in promoting family to be more workplace friendly so that they are able to perform their work roles better without the interference from non-work lives in enabling people to be more focused and committed to their work. Assistance to employees on a personal or organizational level, such as Employee Assistance Programme, in fostering a more facilitative relationship between non-work roles and work role, was to be devised and implemented in order to further promote individuals' psychological well-being and quality of life.

References

Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.

Aryee, S., & Luk, V. (1996). Balancing two major parts of adult life experience: Work and family identity among dual-earner couples. *Human Relations*, *49*, 465-487.

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

Aryee, S., Fields, D., & Luk, V. (1999b). A cross-cultural test of a model of the work-family interface. *Journal of Management, 25(4)*, 491-511.

Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family. *American Psychologist, 56*, 781–796.

Bedeian, A. G., Burke, B. G., & Muffet, R. G. (1988). Outcomes of work-family conflict among married male and female professionals. *Journal of Management, 14*, 475-491.

Burke, R. J. (1988). Some antecedents and consequences of work-family conflict. *Journal of Social Behavior and Personality, 3*, 287-302.

Burke R. J., & Greenglass, E. R. (1999). Work-family conflict, spouse support, and nursing staff well-being during organizational restructuring. *Journal of Occupational and Organizational Psychology, 4(4)*, 327-336.

Burke, R. J., & Greenglass, E. R. (2001). Hospital restructuring stressors, work–family concerns and psychological well-being among nursing staff. *Community, Work and Family, 4*, 49–62.

Cantril, H. (1965). *The pattern of human concern*. Rutgers University Press.

Census and Statistics Department (2007). *Labour Force and Labour Force Participation Rates (LFPRs) by Sex*. Census and Statistics Department, The Government of the Hong Kong Special Administrative Region.

Chan, H., & Lee, R. P. L. (1995). Hong Kong families: At the cross-roads of modernism and traditionalism. *Journal of Comparative Family Studies. 26*, 83-99.

Cheek, N., & Burch, W. (1976). *The social organization of leisure in human society*. New York: Harper & Row.

Coleman, D. (1993). Leisure based social support, leisure dispositions and health. *Journal of Leisure Research, 25*, 350–361.

Coleman, D., & Iso-Ahola, S. E. (1993). Leisure and health: The role of social support and self determination. *Journal of Leisure Research, 25*, 111–128.

Crouter, A. (1984). Participative work as an influence on human development. *Journal of Applied Developmental Psychology, 5*, 71-90.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.

Doyle, K. W., Wolchik, S. A., Dawson, M. S. R., & Sandler, I. N. (2003). Positive events as a stress buffer for children and adolescents in families in transition. *Journal of Clinical Child and Adolescent Psychology, 32*, 536 –545.

Driver, B. L., Tinsley, H. E. A., & Manfredo, M. J. (1991). The paragraphs about leisure and recreation experience preference scales: Results from two inventories designed to assess the breadth of the perceived psychological benefits of leisure. In B. L. Driver, P. J. Brown, & G. L. Peterson (Eds.), *Benefits of Leisure*, pp. 263–286. State College, PA: Venture Publishing, Inc.

Duxbury, L., & Diggins, C. (2001). *Work-life balance in the new millennium: Where are we? Where do we need to go?* CPRN Discussion Paper. Ottawa: Canadian Policy Research Network.

Evans, P., & Bartolome, F. (1984). The changing pictures of the relationship between career and family. *Journal of Occupational Behavior, 5*, 9-21.

Felstead, A., Jewson, N., Phizacklea, A., & Walter, S. (2002). Opportunities to work at home in the context of work-life balance. *Human Resource Management Journal, 12*, 54-76.

Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds), *Handbook of Occupational Health Psychology*, pp. 143–162. Washington, DC: American Psychological Association.

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

Frone, M. R., & Cooper M. L. (1992b). Prevalence of work–family conflict: Are work and family boundaries asymmetrically permeable. *Journal of Organizational Behavior, 13*, 723–729.

Frone, M., Russell, M., & Cooper, L.M. (1997). Relation of work-family conflict to health outcomes: a four-year longitudinal study of employed parents. *Journal of Occupational and Organizational Psychology, 70*, 325-335.

Frone, M. R., Yardley, J. K., & Market, K.S. (1997) Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior, 50*, 145–167.

Gove, W. R., & Zeiss, C. (1987). Multiple roles and happiness. In F. Crosby (Ed.), *Spouse, parent, worker: On gender and multiple roles*, pp. 125-137. New Haven, CT: Yale University Press.

Greenhaus, J. H. (1988). The intersection of work-family roles: individual, interpersonal, and organizational issues. *Journal of Social Behavior and Personality, 3*, 23-44.

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

Greenhaus, J. H., & Parasuraman, S. (1999). Research on work, family, and gender. In G. N. Powell (Ed), *Handbook of gender and work*. Thousand Oaks, CA: Sage.

Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2000). *Career management*. Fort Worth: The Dryden Press.

Greenhaus, J. H., Collins, K. M., & Shaw, J. D. (2003). The relation between work-family balance and quality of life. *Journal of Vocational Behavior, 63(1)*, 510-531.

Grzywacz, J. G. (2000). Work-family spillover and health during midlife: Is managing conflict everything? *American Journal of Health Promotion, 14*, 236–243.

Grzywacz, J. G. (2002). *Toward a theory of work-family facilitation*. Paper presented at the Business and Professional Women's Foundation, The Center for Working Families at Purdue University and the Alfred P. Sloan Foundation's Persons, Processes, and Places: Research on Families, Workplaces and Communities conference, San Francisco, CA.

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

Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. Beverly Hills, CA: Sage.

Hogarth, T., Hasluck, C., Pierre, G., Winterbotham, M., & Vivian, D. (2000). *Work-life balance 2000: Results from the baseline study*. London: Department of Education and Employment.

International Labour Organisation. (2007). *Global Employment Trends for Women Brief March 2007*. Retrieved 1 July 2007 from http://www.ilo.org/public/english/employment/strat/download/getw07.pdf

Iso-Ahola, S. E., & Park, C. J. (1996). Leisure-related social support and self-determination as buffers of stress-illness relationship. *Journal of Leisure Research, 28*, 169–187.

Iso-Aholo, S.E., & Weissinger, E. (1984) *Leisure and well-being. Is there a connection?* Canadian Parks and Recreation Association.

Iwasaki, Y., & Mannell, R. C. (2000a). Hierarchical dimensions of leisure stress coping. *Leisure Sciences, 22*, 163–181.

Iwasaki, Y., & Mannell, R. C. (2000b). The effects of leisure beliefs and coping strategies on stress health relationships: A field study. Leisure/Loisir. *The Journal of the Canadian Association for Leisure Studies, 24*, 3–57.

Iwasaki, Y., & Smale, B. J. A. (1998). Longitudinal analyses of the relationships among life transitions, chronic health problems, leisure, and psychological well-being. *Leisure Sciences, 20*, 25–52.

Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity.* New York: Wiley.

Karademas, E. C. (2006). Self-efficacy, social support and well-being: The mediating role of optimism. *Personality and Individual Differences, 40*, 1281-1290.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology, 65*, 410-422.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: differential correlates of intrinsic and extrinsic rewards. *Personality and Social Psychology Bulletin, 22*, 280-287.

Kelloway, E. K., Gottlieb, B. H., & Barham, L. (1999). The source, nature, and direction of work and family conflict: A longitudinal investigation. *Journal of Occupational Health Psychology, 4*, 337–346.

Kelly, J. (1978). Family leisure in three communities. *Journal of Leisure Research, 10*, 47-60.

Kelly, J., & Snyder, J. (1991). *Commitment and satisfaction in work, family, and leisure.* Paper presented at the NRPA Research Symposium, Baltimore, MD.

Kirchmeyer, C. (1992a). Nonwork participation and work attitudes: A test of scarcity vs expansion models of personal resources. *Human Relations, 45*, 775-795.

Kirchmeyer, C. (1992b). Perceptions of nonwork-to-work spillover: Challenging the common view of conflict-ridden domain relationships. *Basic and Applied Social Psychology, 13*, 231-249.

Kodz. J., Davis, S., Lain, D., Sheppard, E., Rick, J., Strebler, M., Bates, P., Cummings, J., Meager, N., Anxo, D., Gineste, S., & Trinczek, R. (2002). *Working long hours in the UK: A review of the research literature, analysis of survey data and cross-national organizational case studies* (Employment Relations Research Series No. 16). Retrieved 1 July 2007 from http://www.berr.gov.uk/files/file11547.pdf

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

Kossek, E. E., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life

satisfaction relationship: A review and directions for organizational behavior-human

resources research. *Journal of Applied Psychology, 83*, 139–149.

Lambert, S. J. (1990). Processes linking work and family: A critical review and

research agenda. *Human Relations, 43*, 239-257.

Lau. S. K. (l981).Utilitarianistic familism: The basis of political stability. In A. Y. C.

King & R. P. L. Lee (Eds), *Social life and development in Hong Kong*, pp.

195-216. Hong Kong: The Chinese University Press.

Lee, S., McCann, D., & Messenger, J. C. (2007). *Working time around the world:*

Trends in working hours, laws, and policies in a global comparative perspective.

International Labour Organization, Geneva.

Liu, K. M. C., & Fung, H.(2005). Gang members' social network composition and

psychological well-being: Extending socioemotional selectivity theory to the

study of gang involvement. *Journal of Psychology in Chinese Societies. Special*

Issue: Psychology of Aging in Chinese Societies, 6(1), 89-108.

Mahtani, S. (2006). *The State of Work-Life Balance in Hong Kong*. Community

Business Limited.

Marks, S. R. (1977). Multiple roles and role strain: Some notes on human energy, time,

and commitment. *American Sociological Review, 42*, 921-936.

Marks, S. R., & MacDermid, S. M. (1996). Multiple roles and the self: A theory of

role balance. *Journal of Marriage and Family, 58*, 417-433.

Martens, M. F. J., Nijhuis, F. J. N., Van Boxtel, M. P. J., & Knottnerus, J.A. (1999).

Flexible work schedules and mental and physical health: a study of a working

population with non-traditional working hours. *Journal of Organizational Behavior,*

20, 35-46.

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of Personality, 60*, 175-215.

Michaels, E., Handfield- Jones, H, & Axelrod, B. (2001). *The War of Talents*. Boston: Harvard Business School Press.

Neulinger, J. (1974). *The psychology of leisure*. Springfield. IL: C.C. Thomas.

Netemeyer, R., Boles, J., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81(4)*, 400-410.

Parasuraman, S., & Simmers, C. A. (2001). Type of employment, work-family conflict and well-being: a comparative study. *Journal of Organizational Behavior, 22*, 551-568.

Parasuraman, S., Greenhaus, J. H., & Granrose, C.S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organizational Behavior 13*, 339–356.

Payton-Miyazaki, M., & Brayfield, A. H. (1976). The good job and the good life: Relationship of characteristics of employment to general well-being. In A. D. Biderman & T. F. Drury (Eds.), *Measuring work quality for social reporting*, pp. 105-150. New York: Sage.

Perrewe, P. L., Hochwarter, W. A., & Kiewitz, C. (1999). Value attainment: An explanation of the negative effects of work–family conflict on job and life satisfaction. *Journal of Occupational Health Psychology, 4*, 318–326.

Perrons, D. (2003). The new economy and the work-life balance: conceptual explorations and a case study of new media. *Gender, Work and Organization, 10*, 65-93.

Pisarski, A., Bohle, P., & Callan, V. (1998). Work/non-work conflict and health in shiftwork: effect of coping strategies and social support. *Scandinavian Journal of Work Environment and Health, 243*, 141-145.

Piotrkowski, C. S. (1979). *Work and the family system*. New York: MacMillan.

Pleck, J. H. (1977). The work–family role system. *Social Problems, 24*, 417–427.

Pleck, J. H. (1985). Working wives/working husbands. Beverly Hills, CA: Sage.

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

Redding. S. G., Norman, A., & Schlander, A. (1994). The nature of individual attachment to the organization: A review of East Asian variations. In H. C, Triandis. M. D. Dunnette & L, M. Hough (Eds), *Handbook of industrial and organizational psychology, 4*, pp. 647-688. Palo Alto, CA: Consulting Psychologists Press, Inc.

Repetti, R. L. (1987). Linkages between work and family roles. *Applied Social Psychology Annual, 7*, 98-127.

Rice, R. W., Frone, M. R., & McFarlin, D. B. (1992). Work-non-work conflict and the perceived quality of life. *Journal of Organizational Behavior, 13*, 155-168.

Riediger, M. & Freund, A. M. (2004). Interference and facilitation among personal goals: Differential associations with subjective well-being and persistent goal pursuits. *Personality and Social Psychology Bulletin, 30*, 1511-1523.

Riedmann, A., Bielenski, H., Szczurowska, T., & Wagner, A. (2006). *Working time and work-life balance in European companies*. European Foundation for the Improvement of Living and Working Conditions.

Rothbard, N. P. (2001). Enriching or depleting? The dynamics of engagement in work and family. *Administrative Science Quarterly, 46*, 655-684.

Rutherman, M. N., Ohlott, P. J., Panzer, K., & King, S. N. (2002). Benefits of multiple

roles for managerial women. *Academy of Management Journal, 45*, 369-386.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of

psychological well-being. *Journal of Personality and Social Psychology, 57*,

1069-1081.

Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being

revisited. *Journal of Personality and Social Psychology, 69*, 719-727.

Sieber, S. D. (1974). Toward a theory of role accumulation. *American Sociological*

Review, 39, 567-578.

Simpson, R. (2000). Presenteeism and the impact of long hours on managers. In D.

Winstanley & J. Woodall (Eds), *Ethical issues in contemporary human resource*

management (pp. 156-171). London: Macmillan.

Sparks, K., Cooper, C. L., Fried, Y., & Shirom, A. (1997). The effects of hours of

work on health: A meta-analytic review. *Journal of Occupational and*

Organizational Psychology, 70, 391-408.

Staines, G. L. (1980). Spillover versus compensation: A review of the literature on the

relationship between work and nonwork. *Human Relations, 33*, 111-129.

Staines, G. L., & O'Connor, P. (1980). Conflicts among work, leisure and family roles.

Monthly Labour Review, 103(8), 35-39.

Statistics New Zealand (2007). *Key labour force measures by qualifications, age and*

sex. Retrieved 1 July 2007 from

http://wdmzpub01.stats.govt.nz/wds/TableViewer/tableView.aspx

Stephens, M. A., Franks, M. W., & Atienza, A. A. (1997). Where two roles intersect:

Spillover between parent care and employment. *Psychology and Aging, 12)*,

30–37.

Stubbe, J. H., de Moor, M. H. M., Boomsma, D. I., & de Geus, E. J. C. (2007). The association between exercise participation and well-being: A co-twin study. *Preventive Medicine: An International Journal Devoted to Practice and Theory, 44(2)*, 148-152.

Thoits, P. A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. *American Sociological Review, 48*, 174-187.

Thoits, P. A. (1986). Multiple identities: Examining gender and marital status differences in distress. *American Sociological Review, 51,* 259-272.

Thoits, P. A. (1991). On merging identity theory and stress research. *Social Psychology Quarterly, 54*, 101-112.

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

Tompson, H. B., & Werner, J. M. (1997). The impact of role conflict/facilitation on core and discretionary behaviors: Testing a mediated model. *Journal of Management, 23*, 583-601.

Trenberth, L., & Dewe, P. (2002). An exploration of the importance of leisure as a means of coping with work related stress. *Counselling Psychology Quarterly, 15*, 39–72.

UBS (2006). *2006 UBS Study "Prices and Earnings"*. UBS.

US Census Bureau (2005). 2005 American Community Survey.

Verbrugge, L. M. (1986). Role burdens and physical health of women and men. *Women and Health, 11*, 47-77.

Voydanoff, P. (1988). Work role characteristics, family structure demands, and work/family conflict. *Journal of Marriage and the Family, 50*, 749-761.

Wayne, J. H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work-family experience: Relationships of the big five to work-family conflict and facilitation. *Journal of Vocational Behavior, 64*, 108-130.

Warren, J. A., & Johnson, P. J. (1995). The impact of workplace support on work-family role strain. *Family Relations, 44*, 163-169.

Wethington E., & Kessler, R. (1989). Employment, parental responsibility and psychological distress. *Journal of Family Issues, 10,* 527-546.

White, M., Hill, S., McGovern, P., Mills, C., & Smeaton, D. (2003).

High-performance management practices, working hours and work-life balance.

British Journal of Industrial Relations, 41, 175-195.

Williams, K. J., Suls, J., Alliger, G. M., Learner, S. M., & Wan, C. K. (1991). Multiple role juggling and daily mood states in working mothers: An experience sampling study. *Journal of Applied Psychology, 76, 5*, 664-674.

Work-Life Balance Project (2004). *Achieving balanced lives and employment: What New Zealanders are saying about work-life balance*. Department of Labour, Wellington.

Zedeck, S. (1992). Introduction: exploring the domain of work and family careers. In S. Zedeck (Eds),*Work, families, and organizations*, pp. 1-32. San Francisco, CA: Jossey-Bass.

Appendix A

Work-to-Family/Friendship Relations

		never/very rarely				very often
1.	How often do you think you do not devote as much time as you would like to your family/friendship role because of your work?	1	2	3	4	5
2.	How often do you think you do not devote as much money as you would like to your family/friendship role because of your work?	1	2	3	4	5
3.	How often do you think you do not devote as much energy as you would like to your family/friendship role because of your work?	1	2	3	4	5
4.	How often do you think you do something that is incompatible with your family/friendship role because of your work?	1	2	3	4	5
5.	How often do you think you do something that is simultaneously beneficial for your family/friendship role because of your work?	1	2	3	4	5

		not at all true				very true
6.	Your work is instrumental to your family/friendship role?	1	2	3	4	5

Appendix A (Cont'd)

Work-to-Leisure/Recreation Relations

		never/very rarely				very often
7.	How often do you think you do not devote as much time as you would like to your leisure/recreation role because of your work?	1	2	3	4	5
8.	How often do you think you do not devote as much money as you would like to your leisure/recreation role because of your work?	1	2	3	4	5
9.	How often do you think you do not devote as much energy as you would like to your leisure/recreation role because of your work?	1	2	3	4	5
10.	How often do you think you do something that is incompatible with your leisure/recreation role because of your work?	1	2	3	4	5
11.	How often do you think you do something that is simultaneously beneficial for your leisure/recreation role because of your work?	1	2	3	4	5
		not at all true				very true
12.	Your work is instrumental to your leisure/recreation role?	1	2	3	4	5

Appendix A (Cont'd)

<u>Family/Friendship-to-Work Relations</u>

	never/very rarely				very often
13. How often do you think you do not devote as much time as you would like to your work role because of your family/friendship?	1	2	3	4	5
14. How often do you think you do not devote as much money as you would like to your work role because of your family/friendship?	1	2	3	4	5
15. How often do you think you do not devote as much energy as you would like to your work role because of your family/friendship?	1	2	3	4	5
16. How often do you think you do something that is incompatible with your work role because of your family/friendship?	1	2	3	4	5
17. How often do you think you do something that is simultaneously beneficial for your work role because of your family/friendship?	1	2	3	4	5

	not at all true				very true
18. Your family/friendship is instrumental to your work role?	1	2	3	4	5

Appendix A (Cont'd)

Family/Friendship-to-Leisure/Recreation Relations

	never/very rarely				very often
19. How often do you think you do not devote as much time as you would like to your leisure/recreation role because of your family/friendship?	1	2	3	4	5
20. How often do you think you do not devote as much money as you would like to your leisure/recreation role because of your family/friendship?	1	2	3	4	5
21. How often do you think you do not devote as much energy as you would like to your leisure/recreation role because of your family/friendship?	1	2	3	4	5
22. How often do you think you do something that is incompatible with your leisure/recreation role because of your family/friendship?	1	2	3	4	5
23. How often do you think you do something that is simultaneously beneficial for your leisure/recreation role because of your family/friendship?	1	2	3	4	5
	not at all true				very true
24. Your family/friendship is instrumental to your leisure/recreation role?	1	2	3	4	5

Appendix A (Cont'd)

Leisure/Recreation-to-Work Relations

	never/very rarely				very often
25. How often do you think you do not devote as much time as you would like to your work role because of your leisure/recreation?	1	2	3	4	5
26. How often do you think you do not devote as much money as you would like to your work role because of your leisure/recreation?	1	2	3	4	5
27. How often do you think you do not devote as much energy as you would like to your work role because of your leisure/recreation?	1	2	3	4	5
28. How often do you think you do something that is incompatible with your work role because of your leisure/recreation?	1	2	3	4	5
29. How often do you think you do that is simultaneously beneficial for your work role because of your leisure/recreation?	1	2	3	4	5
	not at all true				very true
30. Your leisure/recreation is instrumental to your work role?	1	2	3	4	5

Appendix A (Cont'd)

Leisure/Recreation-to-Family/Friendship Relations

	never/very rarely				very often
31. How often do you think you do not devote as much time as you would like to your family/friendship role because of your leisure/recreation?	1	2	3	4	5
32. How often do you think you do not devote as much money as you would like to your family/friendship role because of your leisure/recreation?	1	2	3	4	5
33. How often do you think you do not devote as much energy as you would like to your family/friendship role because of your leisure/recreation?	1	2	3	4	5
34. How often do you think you do something that is incompatible with your family/friendship role because of your leisure/recreation?	1	2	3	4	5
35. How often do you think you do something that is simultaneously beneficial for your family/friendship role because of your leisure/recreation?	1	2	3	4	5
	not at all true				very true
36. Your leisure/recreation is instrumental to your family/friendship role?	1	2	3	4	5

Table 1. Descriptive Statistics for Demographics of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Sex	Male	56	39.2	39.2	39.2
	Female	87	60.8	60.8	100.0
	Total	143	100.0	100.0	
Age	20-29	29	20.3	20.3	20.3
	30-39	85	59.4	59.4	79.7
	40-49	24	16.8	16.8	96.5
	50 or above	5	3.5	3.5	100.0
	Total	143	100.0	100.0	
Marital Status	Married	75	52.4	52.4	52.4
	Cohabitated	10	7.0	7.0	59.4
	Single	56	39.2	39.2	98.6
	Divorced	2	1.4	1.4	100
	Total	143	100.0	100.0	
Education Level	F. 5 or below	17	11.9	11.9	11.9
	Matriculation	3	2.1	2.1	14.0
	Cert. or diploma	12	8.4	8.4	22.4
	Bachelor degree	67	46.9	46.9	69.2
	Master degree or above	44	30.8	30.8	100.0
	Total	143	100.0	100.0	
Income	$10,000 or below	13	9.1	9.1	9.1
	$10,001 – 20,000	35	24.5	24.5	33.6
	$20,001 – 30,000	30	21.0	21.0	54.5
	$30,001 – 40,000	25	17.5	17.5	72.0
	$40,001 – 50,000	23	16.1	16.1	88.1
	$50,001 – 60,000	6	4.2	4.2	92.3
	$60,001 – 70,000	5	3.5	3.5	95.8
	$80,001 or above	6	4.2	4.2	100.0
	Total	143	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Occupation	Professional	62	43.4	43.4	43.4
	Executive	31	21.7	21.7	65.0
	Clerical	30	21.0	21.0	86.0
	Technical	8	5.6	5.6	91.6
	Servicing	9	6.3	6.3	97.9
	Others	3	2.1	2.1	100.0
	Total	143	100.0	100.0	
Choice of Work Hours	Self Discretion	94	65.7	65.7	65.7
	Required	49	34.3	34.3	100.0
	Total	143	100.0	100.0	
Intention to Quit	Never	22	15.4	15.4	15.4
	Rarely	27	18.9	18.9	34.3
	Sometimes	53	37.1	37.1	71.3
	Often	8	5.6	5.6	76.9
	Usually	20	14.0	14.0	90.9
	Always	13	9.1	9.1	100.0
	Total	143	100.0	100.0	

Table 2.   Factor Loadings for Retained Four Factors of Inter-role Relations Scales

	Factor loadings			
	Non-work roles-based Facilitation	Work role-based Conflict	Non-work roles-based Conflict	Work role-based Facilitation
Work-to-family/friendship conflict	-.05	**.89**	-.26	-.11
Work-to-leisure/recreation conflict	-.06	**.91**	-.15	-.04
Family/friendship-to-work conflict	.26	.38	**-.69**	-.51
Family/friendship-to-leisure/recreation conflict	-.01	.45	**-.60**	-.41
Leisure/recreation-to-work conflict	.21	.10	**-.89**	-.29
Leisure/recreation-to-family/friendship conflict	.14	.20	**-.87**	-.08
Work-to-family/friendship facilitation	.26	.13	-.21	**-.89**
Work-to-leisure/recreation facilitation	.49	-.19	-.24	**-.74**
Family/friendship-to-work facilitation	**.63**	.23	-.28	-.58
Family/friendship-to-leisure/recreation facilitation	**.77**	-.08	.02	-.17
Leisure/recreation-to-work facilitation	**.79**	.02	-.27	-.43
Leisure/recreation-to-family/friendship facilitation	**.86**	-.08	-.28	-.24

Note.   Bolded factor loadings indicate which factor the item loaded onto.

Table 3.   Descriptive Statistics and Intercorrelations between Inter-role Relations Scales and Dependent Variables (N=143)

	Mean	S.D.	Non-work roles-based facilitation	Work role-based conflict	Non-work roles-based conflict	Work role-based facilitation	SPWB	SLS	Family Satisfaction	Friendship Satisfaction	Job Satisfaction	Leisure Satisfaction
Non-work roles-based facilitation	2.91	.72	-									
Work role-based conflict	3.66	.77	.01	-								
Non-work roles-based conflict	2.71	.70	.31**	.30**	-							
Work role-based facilitation	2.98	.79	.51**	-.03	.32**	-						
SPWB	65.13	8.29	.20**	-.19*	-.30**	.17*	-					
SLS	21.00	6.22	.21*	-.06	-.09	.20*	.58**	-				
Family Satisfaction	7.98	1.97	.13	-.13	-.07	.18*	.42**	.53**	-			
Friendship Satisfaction	7.85	1.75	.03	-.15	-.17*	.12	.40**	.39**	.35**	-		
Job Satisfaction	6.97	2.03	.11	-.11	.01	.23**	.47**	.56**	.37**	.48**	-	
Leisure Satisfaction	6.97	2.05	.12	-.22**	-.22**	.18*	.43**	.32**	.31**	.59**	.46**	-

** p < .01 (2-tailed)

Table 4.   Multiple Regression of Psychological Well-Being on Inter-Role Relations Scales

	SPWB	SLS	Family Satisfaction	Friendship Satisfaction	Job Satisfaction	Leisure/ Recreation Satisfaction
	β	β	β	β	β	β
Non-work roles-based facilitation	.24*	.18	.08	-.01	.01	.10
Work role-based conflict	-.07	.01	-.09	-.08	-.09	-.13
Non-work roles-based conflict	-.41**	-.21	-.12	-.20	-.04	-.28**
Work role-based facilitation	.18	.18	.17	.19	.23*	.22*
R^2	.21**	.09*	.06	.07	.06	.14**

* $p < .025$, ** $p < .005$ (1-tailed)