

**WORK-FAMILY POSITIVE SPILLOVER PREDICTING OUTCOMES: A STUDY
OF AUSTRALIA EMPLOYEES**

Jarrod M. Haar
Department of Strategy & Human Resource Management
University of Waikato
Private Bag 3105
Hamilton
New Zealand
Phone: +64 7 838 4587
Fax: +64 7 838 4356
E-mail: haar@waikato.ac.nz

Anne Bardoel
Department of Management
Monash University
Victoria 3800 Australia
Phone: +61 3 9903 2675
Fax: +61 3 9903 2718
E-mail: anne.bardoel@buseco.monash.edu.au

**Inaugural Work-Life Research Workshop
Australian Centre for Research in Employment and Work (ACREW)**

3 December, 2007

Acknowledgements

We would like to acknowledge the contribution of the International Work-Family (Project 3535) research team to the theoretical and empirical conceptualization of this research. The team consists of (in alphabetical order): Dr. Zeynep Aycan (Turkey), Dr. Roya Ayman (U.S.), Dr. Anne Bardoel (Australia), Dr. Tripti Pande-Desai (India), Dr. Anat Drach-Zahavy (Israel), Dr. Leslie Hammer (U.S.), Dr. Ting-Pang Huang (Taiwan), Dr. Karen Korabik (Canada), Dr. Donna Lero (Canada), Dr. Arti Mawardi (Indonesia), Dr. Steven Poelmans (Spain), Dr. Ujvala Rajadhyaksha (India) and Dr. Anit Somech (Israel).

WORK-FAMILY POSITIVE SPILLOVER PREDICTING OUTCOMES: A STUDY OF AUSTRALIA EMPLOYEES

While the work-family conflict literature has received much attention, there is a dearth of empirical evidence towards work-family positive spillover. Further, we have little understanding of positive spillover in an Australian setting. Using structural equation modeling, we tested positive spillover on 420 Australian public and private sector employees, and found work-family positive spillover was negatively associated with psychological distress and turnover intentions, while family-work positive spillover was negatively linked with psychological distress, and positively linked with family satisfaction. The findings indicated that positive spillover had the greatest influence on domain related outcomes such as work-family positive spillover and turnover intentions. The findings support the notion that not all work and family experiences are negative and experiences from the work and home can improve outcomes both inside and outside the workplace.

Keywords: work-family and family-work positive spillover, outcomes, Australia, structural equation modeling.

INTRODUCTION

The work-family literature has a focus on the negative impacts of work-family demographic changes, including increased participation rates of women and parents. In addition, employees report escalating demands on their time (Aryee, Srinivas, & Tan, 2005), which further intensifies and stigmatizes the work-family interface. Frone (2003) asserted that as a result of these changes, more families now have to juggle both the demands of dependent care with the demands of the job. Indeed, the negative outcomes associated with work-family conflict have been well explored, and there is universal agreement that work-family conflict can be detrimental (e.g. increased turnover intentions, Haar, 2004). However, recently there have been calls from critics that argue that working and family responsibilities need not always be detrimental (e.g. Greenhaus & Powell, 2006). Consequently, this study focuses on positive spillover to determine whether such positive influences on employee outcomes can be found.

ROLE THEORY

Role conflict was originally conceptualised as an incompatibility between competing demands within a role, for example work (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Role ambiguity is caused when an employee is unsure what type of job behaviour to execute in a given work situation (Boles, Johnston, & Hair, 1997). Research has indicated that role conflict and role ambiguity affect a wide range of attitudes and behaviours across a variety of work settings (Boles et al., 1997). Further, Kahn et al. (1964) noted that employees could experience conflict between work and other life roles (e.g., family, leisure etc.). However, in response to better explaining possible outcomes of inter-role conflict, the scarcity and enhancement approaches were developed.

Scarcity Approach

Goode (1960) defined role strain as “the felt difficulty in performing role obligations” (p. 483), and the scarcity approach suggests that people have a limited quantity of time, energy and attention. Consequently, being involved in multiple roles can quickly deplete a person’s resources if they are not allocated properly, with Goode (1960) suggesting that people with greater number of roles are more likely to deplete their resources, and thus result in role overload or role conflict. This role strain is similar to inter-role conflict (Kahn et al., 1964). The scarcity approach is a useful introduction to work-family conflict, which relates to the conflict between an employee’s job and their home responsibilities (Greenhaus & Beutell, 1985). Frone, Barnes, and Farrell (1994) suggested that work-family conflict reflects the overall goodness-of-fit between an employee’s job and family life, and this conflict is an important source of stress that can influence an employee’s well being. Despite this focus and acceptance of work-family conflict, some researchers (e.g. Marks, 1977) have noted that multiple roles might not **only** be negative.

Enhancement Approach

An alternative to the scarcity approach, the enhancement approach suggests that multiple roles can actually produce positive outcomes. Sieber (1974) argued that employees involved in multiple roles could gain four types of rewards derived from role accumulation: (1) role privileges, (2) overall status security, (3) resources for status enhancement and role performance relates, and (4) enrichment of the personality and ego gratification. Consequently, involvement in multiple roles can have positive outcomes that in turn, lead to enhanced functioning in other roles (Barnett & Baruch, 1985). Sieber (1974) added that the benefits of role accumulation could outweigh any stress and thereby result in net gratification. The assumption that the rewards might exceed the burdens has widely been neglected by

researchers and theorists and Sieber (1974) emphasises the merit of this alternative hypothesis.

Similarly, Marks (1977) proposed the expansion theory in response to the scarcity approach. In this approach, Marks (1977) suggested human energy is a supply-demand phenomenon, and the body creates energy to perform the multiple roles that people undertake. Consequently, he suggested that multiple roles could enhance resources and create additional energy. Marks (1977) asserted that role strain was not caused by incompatible demands of different roles but by role imbalance, where there is a difference in importance between roles undertaken, and that no role strain will occur when all commitments have equally positive or negative values. Similarly, Barnett and Hyde (2001) advocated that holding multiple roles was not the problem, but how particular roles and their quality and combinations produced strain.

POSITIVE SPILLOVER & HYPOTHESES

From the enhancement approach, a number of terms have been used to describe the positive benefits of work and family role participation including work–family positive spillover (Edwards & Rothbard, 2000), work–family enrichment (Greenhaus & Powell, 2006; Carlson, Kacmar, Wayne & Grzywacz 2006), and work–family facilitation (Grzywacz, 2002). While there have been a number of different approaches to exploring work-family positive spillover (e.g. Edwards & Rothbard, 2000; Staines, 1980), an important focus has been exploring positive spillover from both the workplace into family (work-family) and the family into the workplace (family-work) (Grzywacz & Marks, 2000).

Edwards and Rothbard (2000) suggested that the spillover of values, skills, and behaviours learned in one role might influence other roles. This builds on the enhancement aspects suggested by Sieber (1974), who suggested there are rewards from partaking in multiple roles, including enriched resources and enhanced personalities. Hanson, Hammer and Colton (2006) defined work–family positive spillover “as the transfer of positively valenced affect, skills, behaviors, and values from the originating domain to the receiving domain” (p. 251). There are a number of studies that support the influence of skills, behaviours etc. from one role influencing other roles, typically work into family roles (Crouter, 1984; Ruderman, Ohlott, Panzer, & King, 2002; Kohn, 1963; Pearlin & Kohn, 1966). Therefore, skills, behaviours and values learnt in one role (e.g. the home or the workplace) can provide positive effects into other roles (e.g. the workplace or home). Hence, positive spillover from the workplace and home has the potential to influence employee attitudes relating to work and non-work.

From a small number of empirical studies, work–family and family-work positive spillover has been found to be positively related to a number of outcomes including mental health (Grzywacz, 2000). Stephens, Franks, and Atienza (1997) found higher work-family positive spillover was associated with higher psychological well being. Similarly, Hammer, Cullen, Neal, Sinclair, and Shafiro (2005) found work–family positive spillover from a spouse was related to reduced depressive symptoms, and Hanson et al. (2006) found dimensions of work-family and family-work positive spillover were associated with mental health. Hanson et al. (2006) suggested two possible explanations for the link between positive spillover and mental health. They suggest the positive mental health outcomes are due to positive spillover providing a buffering effect against negative events, perhaps through reinforcing social relationships, and through the inherent transference nature of positive spillover with regard to

skills, behaviours, and values, resulting in rewards such as heightened self-esteem, which help to provide a buffer against negative life events. This leads to our first hypothesis.

Hypothesis 1: Higher work-family and family-work positive spillover will be related to lower psychological distress.

The notion that higher work-family conflict would lead employees to consider leaving their organisation is well supported. Indeed, turnover intention is amongst the most studied outcomes in the work-family conflict literature (e.g. Anderson, Coffey, & Byerly, 2002; Cohen, 1997; Good, Page, & Young, 1996; Maertz, 1999; Shaffer, Harrison, Gilley, & Luk, 2001). Despite this interest, and the only recent emergence of positive spillover, there has been a lack of positive spillover exploring turnover intention (for an exception see Wayne, Randel & Stevens 2006). Cohen (1997) asserted work-family conflict could cause employees to quit their job, and his claim has been supported (Good, Sisler, & Gentry, 1988). The rationale is that employees experiencing greater conflict in their workplace would seek employment elsewhere, perhaps to a potentially ‘less stressful’ place. Mowday, Porter, and Steers (1982) argued that issues outside the home might also influence turnover intentions, and as such, intentions to leave a job are positively related to work-family and family-work conflict (Grandey & Cropanzano, 1999).

From a positive spillover perspective, similar to mental health gains noted above, we would expect employees with higher positive spillover to gain buffering from wanting to leave their jobs, through either reinforcing social relationships or through enhanced skills, behaviours, and values. In effect, increased self-esteem might buffer an employees “flight” response to conflict and a desire to leave their job. Consequently, in the opposite direction to work-family conflict studies, we suggest that employees with higher positive spillover will buffer and

dampen the desire to leave their job. Further, the enhanced benefits associated with working (e.g. skills, behaviours etc.) might also encourage an employee to stay with their job. We follow the logic of Mowday et al. (1985), by suggesting that the benefits of positive spillover will encompass both the work and the home, hence we suggest these effects will be bi-directional. This leads to our second hypothesis.

Hypothesis 2: Higher work-family and family-work positive spillover will be related to lower turnover intentions.

Researchers have also suggested that increased levels of work–family positive spillover may be related to greater family satisfaction (Crouter, 1984; Edwards & Rothbard, 2000; Grzywacz, Almeida, & McDonald, 2002). Hansen et al. (2006) stated, “the transfer of positively valenced affect, skills, behavior, and values promotes better role performance” (p. 252). Consequently, this improved performance may lead to lower task frustration and promote feelings of doing a job well, which in turn leads to greater role satisfaction (Hansen et al., 2006). In this regard, the positive spillover between work and family should lead to enhanced family satisfaction through the transference of skills and behaviours and through reducing interpersonal conflict due to greater social support (Hansen et al., 2006). Similarly, Grzywacz and Marks (2000) found higher positive spillover associated with lower marital conflict. As such, positive spillover from either the work or family domain should lead to enhanced family satisfaction outcomes. Empirical evidence has supported this influence, with Brockwood (2002) finding work-family positive spillover positively related to family satisfaction (cited in Hansen et al., 2006). In support of a bi-directional approach towards these outcomes, Hansen et al. (2006), with three sub-scales each for work-family and family-work positive spillover, found significant positive correlations between some of the subscales and family satisfaction. This leads to our hypothesis.

Hypothesis 3: Higher work-family and family-work positive spillover will be related to higher family satisfaction.

METHOD

Sample and Procedure

Participants were contacted via an email which included a link to a web-based survey. Follow-up requests to complete the online survey were emailed two weeks later with the intent of increasing response rate (Kittleston, 1997). Approximately 1190 potential participants' email addresses were included in the original email sample and a total of 420 employee surveys were completed (35% response rate). Respondents ranged in age from 21 to 63 years (average age of 39.9 years), 66% were female, 79% were married, and 66% parents. Education was well spread with 30% with high school education, 13% TAFE qualification, 23% with a bachelors degree, 16% had a graduate certificate or diploma, and 18% with a masters degree or PhD. Overall, respondents worked 45.9 hours per week.

Measures

Predictor Variables

Work-Family Positive Spillover and Family-Work Positive Spillover was measured with 6-items from Grzywacz and Marks (2000), coded 1=never, 5=all of the time. Items followed the stem "How often have you experienced each of the follow..." and a sample item is "The things you do at work help you deal with personal and practical issues at home" (work-family positive spillover) and "Your home life helps you relax and feel ready for the next day's work" (family-work positive spillover). This measure had Cronbach's alpha of .70 (work-family positive spillover) and .66 (family-work positive spillover).

Criterion Variables

Psychological Distress was measured using 6-items by Santor and Coyne (1997), coded 1=none, to a little of the time (less than 1 or 2 days) and 2=a moderate amount of the time (3-7 days). Questions followed the stem “During the past week...” and a sample item is “you felt depressed”. Two items were reverse coded. A high score indicates higher psychological distress. This measure has a Cronbach’s alpha of .79.

Turnover Intentions was measured using 2-items by Camman, Firschman, Jenkins and Klesh (1979), coded 1=strongly disagree, 6=strongly agree. A sample question is “I often think about quitting my job”. This measure has a Cronbach’s alpha of .97.

Family Satisfaction was measured using 2-items by Hackman and Oldham (1975), coded 1=strongly disagree, 6=strongly agree. Questions asked were “I am generally satisfied with the role I play in my family” and “Generally speaking, I am very satisfied with my family”. This measure has a Cronbach’s alpha of .68.

RESULTS

Descriptive statistics for all the study variables in study one is shown in Table 1.

Insert Table 1 about here

Table 1 shows the descriptive statistics and intercorrelations of the study variables. All the correlations were in the predicted direction. The hypotheses were tested with structural equation modeling (SEM) analyses using AMOS (Arbuckle, 1997); mainly because it allowed

us to account for all of the variables in the model at one time to test the hypotheses. We used Anderson and Gerbing's (1988) approach, whereby one first tests the fit of the measurement components of the model and, when the fit is acceptable, the fit of the structural model is then tested. Hence, confirmatory factor analyses were undertaken to assess the convergent and discriminant validity of the multiple-item measures.

Goodness of Fit of Measurement Model

Several goodness-of-fit indexes were used to assess the overall fit of the proposed model (cf. Jöreskog & Sörbom, 1993): the chi-square goodness-of-fit statistic; the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI); the comparative fit index (CFI; Bentler, 1990), the Tucker–Lewis index (TLI; Bentler & Bonett, 1980), and the root-mean-square error of approximation (RMSEA) with confidence intervals. For the GFI, CFI and TLI, values of .95 or above indicate a model with acceptable fit (Bentler & Bonett, 1980; Hu & Bentler, 1999), while .90 or above is desirable for the AGFI. For the RMSEA, values of .05 or less indicate a well-fitting model (Hu & Bentler, 1999). The measurement model fits the data well: $\chi^2(94) = 154.5$ ($p = .000$), GFI = .96, AGFI = .94, CFI = .97, TLI = .97, and RMSEA = 0.040 (LO 90 = 0.28 and HI 90 = 0.051).

Insert Figures 1 and 2 about here

Goodness of Fit of Proposed Model and Alternative

Figure 1 shows the prediction model with work-family positive spillover and family-work positive spillover predicting job outcomes. The results of the prediction model are presented

in Figure 2. The model appears to fit the data well: $\chi^2(92) = 185.7$ ($p = .000$), GFI = .95, AGFI = .92, CFI = .95, TLI = .96, and RMSEA = 0.051 (LO 90 = 0.40 and HI 90 = 0.061). Looking at specific effects, Figure 2 shows that work-family positive spillover is significantly associated with family-work positive spillover (path coefficient .42, $p < .001$), turnover intentions (path coefficient -.73, $p < .001$), and psychological distress (path coefficient -.05, $p < .05$). Family-work positive spillover is significantly associated with family satisfaction (path coefficient .77, $p < .001$), and psychological distress (path coefficient -.09, $p < .05$). Finally, psychological distress is significantly associated with turnover intentions (path coefficient -2.3, $p < .001$).

DISCUSSION

The present study focused on testing the influence of work-family and family-work positive spillover on outcomes, using SEM. This approach is superior to regression analysis in that all predictor and outcome effects can be tested at the same time. The measurement model provides strong support for the separation of work-family and family-work dimensions regarding positive spillover, as well as the outcomes explored. Similarly, the prediction model yielded an acceptable degree of fit to the data providing strong support for the effects tested. Overall, the findings were largely as we might have expected from the literature, suggesting commonalities on the benefits of positive spillover among Australian employees.

Work-family and family-work positive spillovers were both significant in predicting psychological distress, the only outcome to be predicting by both dimensions of positive spillover. This supports findings in the literature (Hanson et al., 2006; Grzywacz, 2000; Hammer et al., 2005). While family-work positive spillover was also significantly related to family satisfaction, family-work positive spillover was not. Conversely, work-family positive

spillover was significantly related to the job outcome turnover intentions, while family-work positive spillover was not. This suggests some domain specific effects, which further encourages the separation of positive spillover into work-family and family-work domains. These findings suggest that workplace lessons might be more applicable for reducing feelings associated with leaving one's job and similarly, skills and values attained from the family that enter the workplace might enrich the employee's experiences and overall satisfaction with family. Certainly, further studies are needed to determine whether these domain specific effects are consistent and generalizable.

Overall, the findings highlight that experiences learnt from the family and work domains are useful in reducing psychological distress amongst this sample of Australian workers. While both work-family and family-work positive spillovers were significant, the path coefficients were relatively minor in effect strength with coefficients of $-.05$ and $-.09$ (both $p < .05$) respectively. This indicates that a one point increase in either positive spillover dimension leads to a reduction in psychological distress of between $.05$ and 0.09 . While these effects are significant, clearly, they are not large. However, work-family positive spillover had a far greater influence on turnover intentions, with a one point increase in this dimension leading to a significant reduction in turnover intentions of $.73$ ($p < .001$). Similarly, family-work positive spillover had a strong influence on family satisfaction, with a one point increase in this dimension leading to a significant increase in this outcome by $.77$ ($p < .001$). Overall, while positive spillover does influence psychological distress its effects are minor from both domains, while domain specific positive spillover appears to have strong effects on the same domain related outcomes.

One of the major contributions of the present study has been exploring the relationships using SEM. As the positive spillover literature is still in its infancy, there have been to our knowledge, no studies that have utilised this approach for both measurement and prediction models. This makes an important contribution because the measurement models re-affirms the bi-directional dimensions of positive spillover (work-family and family-work), as well as tested the overall reliability and strength of the outcomes measures tested here. Further, our findings can be viewed as being more complete because all outcomes are tested simultaneously and provides a more robust understanding of positive spillovers influence on outcomes. Overall, we recommend that further studies seek to utilize SEM as a way of providing a more comprehensive approach to the influence of positive spillover, especially from the perspective of the measurement model, which should be utilised to reconfirm the separate dimensions associated with the work and family domains. This is especially prevalent due to the emerging field of positive work-family aspects, the low number of empirical studies, and the already multiple measures being offered in the literature.

The findings indicate that the work and family domains appear to hold separate spheres of positive influence towards a majority of outcomes, at least within this study of Australian workers. As such, it would appear that for some outcomes, the positive lessons based from one role might be stronger for influencing associated outcomes than spillover from the other role. It is worth considering the correlations results (Table 1) relating to work-family and family-work positive spillover and the outcomes studied here. These show that almost universally positive spillover from **both** domains was significantly related to all outcomes (the exception being turnover intentions and family-work positive spillover). As such, we find from the regression models that the influence of one domain's positive spillover *dominates* or *over-rides* the influence of the other domains positive spillover, at least towards turnover

intentions and family satisfaction. These findings support a bi-directional approach towards positive spillover influences.

Limitations

As with all cross sectional studies, there are some limitations that need to be highlighted, including the cross sectional approach. Data collection at a single point in time might raise common method variance concerns. As such, we conducted Harman's One Factor Test as this approach is seen as a useful rudimentary check for common method variance (e.g. Major et al., 2002). The resulting factor analysis (unrotated) resulted in ten factors, the largest accounting for 23.7% of the variance. Given that no dominant single factor emerged, this indicates little evidence of common method variance (Podsakoff & Organ, 1986).

Conclusion

Overall, the present study does add much-needed findings to the positive spillover literature; especially given such an examination has not been explored in Australia previously. In addition, we add to the overall work-family positive spillover literature by exploring these effects bi-directionally using SEM, and given our findings, we suggest additional studies are required to provide clearer understanding of the positive spillover influences are based more on one domain than the other (e.g. work or family) when influencing outcomes. Further, the present study has started to broaden the types of outcomes explored in the positive spillover literature by testing turnover intentions. Clearly, additional outcomes need to be explored.

REFERENCES

- Anderson, S. E., Coffey, B. S., & Byerly, R. T. (2002). Formal organisational initiatives and informal workplace practices: Links to work-family conflict and job-related outcomes. *Journal of Management*, 28(6), 787-810.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.
- Arbuckle, J. L. (1997). *AMOS users' guide version 4.0*. Chicago: Smallwaters Corporation.
- Aryee, S., Srinivas, E. S., & Tan, H. H. (2005). Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology*, 90(1), 132-146.
- Barnett, R.C. & Baruch, G.K. (1985). Women's involvement in multiple roles and psychological stress, *Journal of Personality and Social Psychology*, 49(1), 135-145
- Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An Expansionist Theory. *American Psychologist*, 56(10), 781-796.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in analysis of covariance structures. *Psychological Bulletin*, 88, 588–606.
- Boles, J. S., Johnston, M. W., & Hair, J. F. (1997). Role stress, work-family conflict and emotional exhaustion: Inter-relationships and effects on some work-related consequences. *The Journal of Personal Selling & Sales Management*, 17(1), 17-28.
- Brockwood, K. J. (2002). An examination of positive work–family spillover among dual-earner couples in the sandwiched generation. Unpublished doctoral dissertation, Portland State University, Portland, OR.

- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organisational Assessment Questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor, Michigan.
- Carlson, D., Kacmar, K. M., Wayne, J. H., & Grzywacz, J. G. (2006). Measuring the positive side of the work-family interface: Development and validation of a work-family enrichment scale. *Journal of Vocational Behaviour*, 68, 131-164.
- Cohen, A. (1997). Nonwork influences on withdrawal cognitions: An empirical examination of an overlooked issue. *Human Relations*, 50(12), 1511-1536.
- Crouter, A. C. (1984). Spillover from family to work: The neglected side of the work-family interface. *Human Relations*, 37(6), 425-441.
- Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25, 178-199.
- Frone, M. R., Barnes, G. M., & Farrell, M. P. (1994). Relationship of work-family conflict to substance use among employed mothers: The role of negative affect. *Journal of Marriage and the Family*, 56(4), 1019-1030.
- Frone, M. R. (2003). Work-family balance. In J. C. Quick & L. E. Tetrick (Eds.). *Handbook of Occupational Health Psychology*. Washington, DC: American Psychological Association.
- Gerbing, D. W., & Anderson, J. C. (1984). On the meaning of within-factor correlated measurement errors. *Journal of Consumer Research*, 11, 572-580.
- Good, L. K., Page, T. J. & Young, C. E. (1996). Assessing hierarchical differences in job-related attitudes and turnover among retail managers. *Academy of Marketing Science*, 24(2), 148-156.

- Good, L. K., Sisler, G. F. & Gentry, J. W. (1988). Antecedents of turnover intentions among retail management. *Journal of Retailing*, 64(3), 295-314.
- Goode, W. J. (1960). A theory of role strain. *American Sociological Review*, 25, 483-496.
- Grandey, A. A. & Cropanzano, R. (1999). The conservation of resources model applied to work-family conflict and strain. *Journal of Vocational Behavior*, 54, 350-370.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76-88.
- Greenhaus, J. H., & Powell, G. N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31, 72-79.
- Grzywacz, J. G. & Marks, N. F. (2000). Reconceptualizing the work-family interface: An ecological perspective on the correlates of positive and negative spillover between work and family. *Journal of Occupational Health Psychology*, 5(1), 111-126.
- Grzywacz, J. G. (2002). Toward a theory of work-family facilitation. Paper presented at the 34th Annual Theory Construction and Research Methodology Workshop, November 2002, Houston, TX.
- Grzywacz, J. G., Almeida, D. A., & McDonald, D. A. (2002). Work-family spillover and daily reports of work and family stress in the adult labor force. *Family Relations*, 51(1), 28-36.
- Hackman, J. & Oldham, G. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60, 159-170.
- Haar, J. M. (2004). Work-family conflict and turnover intention: exploring the moderation effects of perceived work-family support. *New Zealand Journal of Psychology*, 33(1), 35-39.

- Hanson, G. C., Hammer, L. B., & Colton, C. L. (2006). Development and Validation of a Multidimensional Scale of Perceived Work–Family Positive Spillover. *Journal of Occupational Health Psychology*, 11(3), 249–265.
- Hammer, L. B., Cullen, J. C., Neal, M. B., Sinclair, R. R., & Shafiro, M. (2005). The longitudinal effects of work-family conflict and positive spillover on depressive symptoms among dual-earner couples. *Journal of Occupational Health Psychology*, 10, 138-154.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1–55.
- Kahn, R. L., Wolfe, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organisational Stress*. New York: Wiley.
- Kittleson, M. (1997). Determining effective follow-up of e-mail surveys. *American Journal of Health Behavior*, 21(3), 193-196.
- Kohn, M. L. (1963). Social class and parent–child relationships: An interpretation. *American Journal of Sociology*, 68, 471–480.
- Kossek, E. E., Colquitt, J. A., & Noe, R. A. (2001). Caregiving decisions, well-being, and performance: The effects of place and provider as a function of dependent type and work-family climates. *Academy of Management Journal*, 44, 29-44.
- Maertz, C. P. (1999). Biographical predictors of turnover among Mexican workers: An empirical study. *International Journal of Management*, 16(1), 112-119.
- Major, V. S., Klein, K. J., & Ehrhart, M. G. (2002). Work time, work interference with family, and psychological distress. *Journal of Applied Psychology*, 87(3), 427-436.
- Marks, S. M. (1977). Multiple roles and role strain: Some notes on human energy, time and commitment. *American Sociological Review*, 42(6), 921-936.

- Mowday, R. T., Porter, L. W. & Steers, R. M. (1982). *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. New York: Academic Press Inc.
- Pearlin, L., & Kohn, M. (1966). Social class, occupational, and parental values: A cross national study. *American Sociological Review*, 31, 466–479.
- Podsakoff, P. M. & Organ, D. W. (1986). Self-reports in organisational research: Problems and prospects. *Journal of Management*, 12(4), 531-544.
- Ruderman, M. N., Ohlott, P. J., Panzer, K., & King, S. (2002). Benefits of multiple roles for managerial women. *Academy of Management Journal*, 45, 369-386.
- Santor, D. A., Coyne, J. C. (1997). Shortening the CES-D to improve its ability to detect cases of depression. *Psychological Assessment*, 9, 233-243.
- Shaffer, M. A., Harrison, D. A., Gilley, K. M. & Luk, D. M. (2001). Struggling for balance amid turbulence on international assignments: work-family conflict, support and commitment. *Journal of Management*, 27, 99-121.
- Sieber, S. D. (1974). Toward a Theory of Role Accumulation. *American Sociological Review*, 39(4), 567-578.
- Staines, G. L. (1980). Spillover Versus compensation : A review of the literature on the relationship between work and nonwork. *Human Relations*, 33(2), 111-129.
- Stephens, M. A. P., Franks, M. M., & Atienza, A. A. (1997). Where two roles intersect: Spillover between parent care and employment. *Psychology and Aging*, 12, 30–37.
- Wayne, J. H., Randel, A. E. & Stevens, J. (2006). The role of identity and work-family support in work-family enrichment and its work related consequences. *Journal of Vocational Behaviour*, 69, 445-461.

TABLE 1. Correlations and Descriptive Statistics of the Study Variables

Variables	M	SD	1	2	3	4	5
1. Psychological Distress	1.3	.29	--				
2. Turnover Intentions	3.1	1.6	.31**	--			
3. Family Satisfaction	5.0	.85	-.30**	-.18**	--		
4. Work-Family Positive Spillover	2.7	.71	-.16**	-.27**	.15**	--	
5. Family-Work Positive Spillover	3.6	.70	-.24**	-.07	.38**	.28**	--

N=420, *p<.05, **p<.01

Figure 1. Hypothesised Model

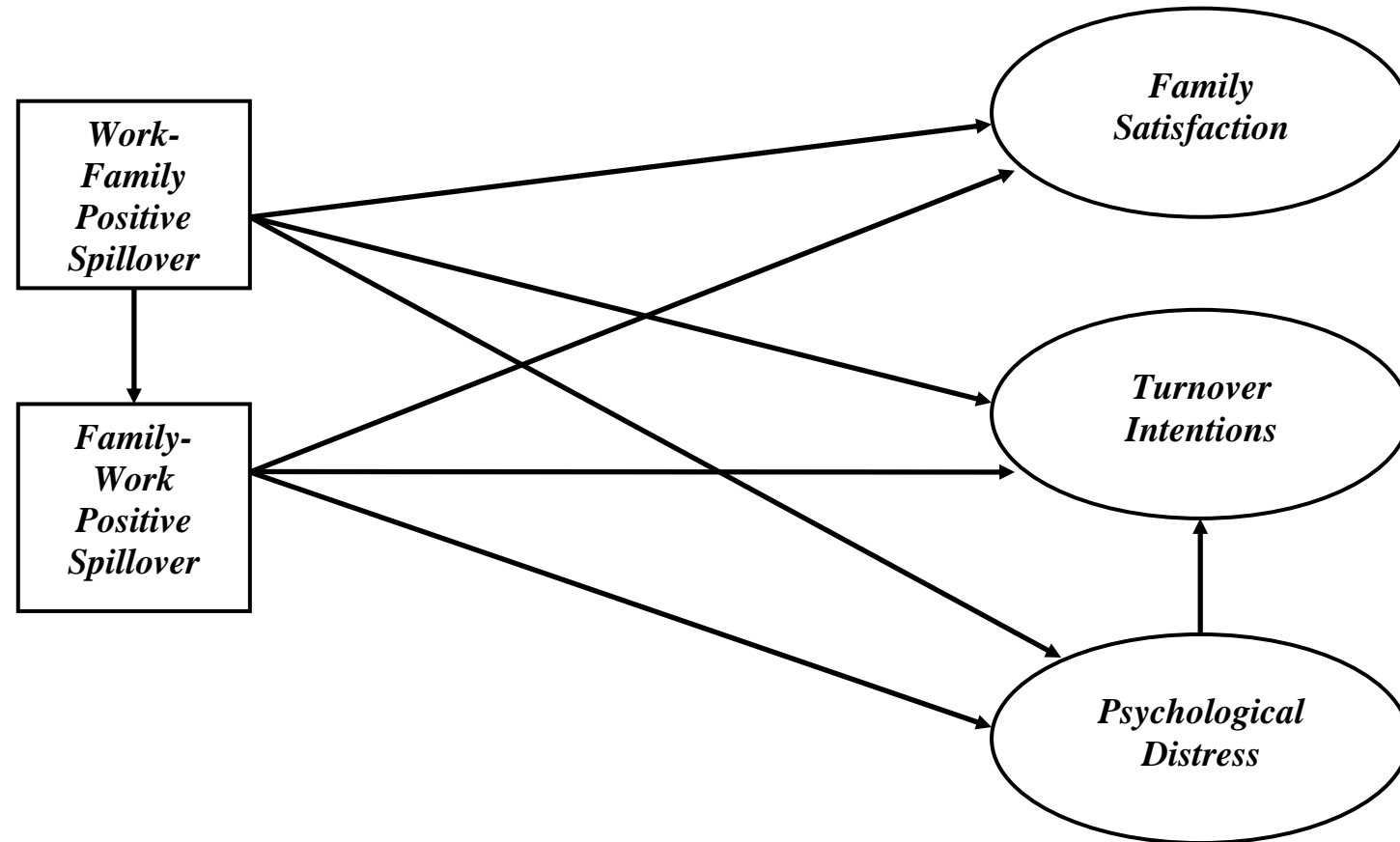


Figure 2. Prediction Model for Positive Spillover and Outcomes

