

**Interrole conflict between work and family: Antecedents and
consequences for dual-earner couples**

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A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of Master of Science in Applied
Psychology (Industrial/Organizational)

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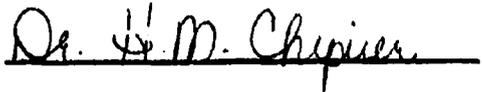
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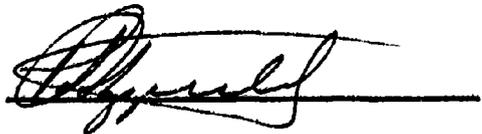
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Abstract

Interrole conflict between work and family: Antecedents and consequences for husband-wife dyads

Melanie E. Gilbert

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This study extends more recent findings that support interrole conflict as consisting of two distinct constructs: work interfering with family (WIF) and family interfering with work (FIW). Unique antecedents and consequences were tested for WIF and FIW in separate models, along with an exploratory model of interrole conflict. A sample of 88 dual-earner couples with children was selected to examine WIF and FIW within families. Results from structural equation modelling supported the proposed model of WIF, but not FIW. The exploratory models shed further light on how interrole conflict operates. The variables identified as potential antecedents of WIF were specific to the work domain, while WIF seemed to have consequences for both work and home life. WIF was identified as a potential antecedent of FIW for both partners. As well, wives' household activities seemed to alleviate FIW for their husbands. The consequences of FIW seemed to lie only in the work domain.

Results are discussed in terms of their implications for family patterns and organizational policies.

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Interrole conflict between work and family: Antecedents and consequences for husband-wife dyads

The primary purpose of this study is to test the proposition that conflict between work¹ and family consists of two distinct types: work interfering with family, and family interfering with work. In testing this proposition, potential antecedents and consequences that are unique to each type will be identified. Investigating this conflict in dual-earner couples may uncover how it operates within the family context.

Background

The increase in the number of employed mothers marks one of the most dramatic changes in Canadian society (Statistics Canada, 1993). Between 1966 and 1982, the female labour force grew by 119.4% while the male labour force grew by 35.6% (Canadian Advisory Council on the Status of Women, 1985; cited by Lips & Colwill, 1988). This trend continues with 56% of married women employed in 1992

¹The term 'work' will be used to refer to paid employment exclusively. Nevertheless, we recognize that housework and volunteer work are legitimate forms of work.

compared to 47% in 1981. In 1992, 64% of mothers with children under age 16 were employed, as were 57% of mothers whose youngest child was under age three (Statistics Canada, 1993). What are the implications of this profound social change for both family life and work life?

The dramatic increase in female employment has meant that the traditional family with father as sole economic provider and mother as primary caregiver is no longer the norm. What is more prevalent is the dual-earner family where both husband and wife assume the roles of spouse, parent, and employee. Dual-earner couples share the responsibilities of family and work, and, therefore, they must balance any conflicting demands. Understanding the balancing act between work and family has spawned research from a number of fields ranging from family sociology to women's studies to industrial/organizational psychology. The following question provides the impetus for such research: Does the role of employee have any influence on the family roles of parent and spouse, and vice versa?

Five models describe different relationships between work and family roles: segmentation, compensation, instrumentality, spillover, and conflict (Evans & Bartolome, 1984). Segmentation occurs when work and family life are independent and do not interact (Lambert, 1990). That is,

one's role as an employee has no influence on one's role as a spouse or parent, and vice versa. This traditional expectation has been referred to as "the myth of separate worlds" (Kanter, 1977; as cited by Burke & Greenglass, 1987, p. 273). With segmentation,

The objective conditions of work life are limited to their effect on work-specific attitudes and behaviors such as job satisfaction, job involvement, attendance, and work effort. Similarly, the effects of family conditions are limited to that sphere, to their effects on family satisfaction, family involvement, and participation in family work. (Lambert, 1990, p. 248)

In contrast, compensation occurs when an individual experiences dissatisfaction with either work or family. He or she will then compensate for dissatisfaction with work (family) by attempting to find more satisfaction in family (work); the outcome is higher role involvement in the compensatory domain (Lambert, 1990). For example, individuals may compensate for their dissatisfaction in their job by becoming more involved in their family life.

Instrumentality occurs when one environment is regarded as a means by which an individual can obtain something desirable in the other environment (Poole & Langan-Fox, 1990; Zedeck & Mosier, 1990). For example, being a family man or woman may be considered a way to foster career opportunities. Alternatively, work may be

regarded as providing one with the financial means to enjoy one's family life.

Spillover occurs when the effect of work and family spill over from one to the other (Lambert, 1990). That is, an individual's work experiences influence his or her family experiences, and vice versa (Zedeck & Mosier, 1990).

Spillover can be either positive or negative. Positive spillover occurs when skills learned and practiced on the job, such as improved communication, are also demonstrated in the roles of parent and spouse. Alternatively, negative spillover takes place when dissatisfaction in the family roles decreases satisfaction in the work role.

Conflict occurs when "participation in the work (family) role is made more difficult by virtue of participation in the family (work) role" (Greenhaus & Beutell, 1985, p. 77). Role participation is made more difficult by a constraint on needed time and/or psychological resources (Piotrkowski, 1979; as cited by Williams & Alliger, 1994). The source of the conflict is three-fold. First, participation in one role may entail sacrifices in the other role (Zedeck & Mosier, 1990). For example, an individual may become less committed to his or her job in order to be the kind of parent he or she deems acceptable. Second, work and family may be "incompatible

because they have distinct norms and requirements" (Zedeck & Mosier, 1990, p. 241). For instance, child care requirements may conflict with one's required work schedule. Third, pressures may exist within one domain that interfere with participation in the other domain (Kopelman, Greenhaus & Connolly, 1983). For example, one's job demands may make one too tired to fully participate in one's family life.

How do these different models compare? Segmentation contrasts with the remaining models that describe the relationship between work and family. Compensation, instrumentality, spillover, and conflict propose specific relationships between work and family life, whereas segmentation holds that there is no such relationship. Also, spillover differs from compensation, instrumentality, and conflict. The spillover model holds that "there is a similarity between what occurs in the work environment and what occurs in the family environment" (Zedeck & Mosier, 1990, p. 241). This is in contrast to compensation and instrumentality which hold that work and family life are antithetical (Zedeck & Mosier, 1990). The consequence of both compensation and instrumentality is unequal involvement in work and family (Lambert, 1990). The conflict model goes even further by claiming that effective participation in one domain adversely affects participation in the other domain.

The Conflict Model: Interrole Conflict

The present research tests the validity of the conflict model, or the subjective experience of conflict between work and family. This model has been chosen since it may be particularly relevant for the dual-earner couples of today. Unlike the role differentiation by gender that marked the traditional couple, both members of dual-earner couples must manage work and familial responsibilities. Balancing work and family may mean that the conflict model is an accurate description of how work and family often interact for these couples. Hence, the conflict model of work and family is the focus of the present study. Interrole conflict, or work-family conflict, are terms used to describe this subjective experience.

The Direction of Interrole Conflict

Interrole conflict can be further defined by its direction. The defining question is: What role is provoking the conflict and what role is being affected by this conflict? Does participation in the work role adversely influence participation in family roles? Does participation in family roles adversely influence participation in the work role? Or does conflict occur in both directions? WIF will indicate interrole conflict where

work is interfering with family. Likewise, FIW will indicate interrole conflict where family is interfering with work.

Little consensus exists on the operationalization of interrole conflict. Much of the past research has operationalized interrole conflict as WIF exclusively (Barling & MacEwen, 1991; Burke, 1988; Greenhaus, Parasuraman, Skromme Granrose, Rabinowitz, & Beutell, 1989; Izraeli, 1993; Kopelman et al., 1983). Often, there is no acknowledgement that interrole conflict also operates in the opposite direction. Sometimes, direction is not recognized as a relevant issue in interrole conflict (Cooke & Rousseau, 1984; Drory & Shamir, 1988; Frone & Rice, 1987; Greenglass & Burke, 1988; Greenglass, Pantomy, & Burke, 1988; Suchet & Barling, 1986; Wiersma & Van Den Berg, 1991). That is, conflict between work and family is measured without differentiating between WIF or FIW. For example, interrole conflict has been measured by a single question: "How much do your job and your family life interfere with each other?" (Lance & Richardson, 1988; Pleck & Staines, 1985; Rice, Frone, & McFarlin, 1992; Voydanoff, 1988). How should an affirmative response to this question be interpreted? Are the pressures, sacrifices, norms or requirements, which are the culprits of the conflict, coming from work, from the

family, or from both? Is it work, family, or both environments that are adversely affected by such conflict? A nondirectional approach to interrole conflict fails to provide this essential information.

The Work-Family Scale devised by Holahan and Gilbert (1979) is another example of a nondirectional operationalization of interrole conflict (Frone & Rice, 1987; Greenglass, Pantomy & Burke, 1988; Suchet & Barling, 1986). For this scale, respondents indicate the degree of internal conflict they experience between the roles of professional, parent, spouse and 'self' (i.e., leisurely role). A sample item from this scale is "supporting your child's recreational activities versus spending time on your career development" (Beere, 1990). If a respondent reports high internal conflict, what does this mean? Are there consequences to this conflict? If so, is attention to the child's activities compromised or is career development sacrificed? Although it is helpful to know that an individual is experiencing conflict between his or her personal and work life, without knowing the consequences of this conflict, the practical implications are unclear. A nondirectional operationalization of interrole conflict makes research pursuits less clear, the results less

interpretable, and does not further an understanding of the nature of the conflict.

Some studies have taken the direction of interrole conflict into account. In these studies, WIF and FIW appear to be distinct, albeit correlated, constructs (Frone, Russell, & Cooper, 1992a; Gutek, Searle, & Klepa, 1991; O'Driscoll, Ilgen, & Hildreth, 1992; Thompson & Blau, 1993; Wiley, 1987). These studies have reported correlations ranging from .22 to .40 in magnitude. A correlation between WIF and FIW is to be expected; "if one's work-related problems and responsibilities begin to interfere with the accomplishment of one's family-related obligations, these unfulfilled family obligations may begin to interfere with one's day-to-day functioning at work" (Frone et al, 1992a, p. 66). Consequently, interrole conflict will be operationalized as consisting of WIF and FIW; both types will be examined as distinct constructs.

Antecedents of WIF and FIW

Pressures, norms or requirements, and sacrifices may produce conflict between work and family. First, pressures within one role infringing on participation in another role may lead to interrole conflict. Both low spousal support (Frone et al., 1992a) and the level of distress associated

with family roles (Williams & Alliger, 1994) have been related to FIW. Work role conflict, ambiguity and overload (Aryee, 1992; Bacharach, Bamberger & Conley, 1991; Bedeian, Burke & Moffett, 1988; Beutell & O'Hare, 1987; Crouter, Hawkins & Hostetler, 1992; Greenhaus, Bedeian & Mossholder, 1987; Greenhaus, Parasuraman et al., 1989; Kopelman et al., 1983; Parasuraman, Greenhaus, & Skromme Granrose, 1992), and a lack of supervisory support (Thiede Thomas & Ganster, 1995) have all been associated with WIF. The pressures from one role may deplete emotional or physical energy preventing effective participation in another role.

Incompatible norms or requirements may also promote interrole conflict. Having a supervisor or coworkers who expect work to take priority over family (i.e., work-role expectations) may elicit WIF. The perceived work-role expectations of supervisors and coworkers may precede WIF (Duxbury & Higgins, 1991), as may excessive time demands at work (Aryee, 1992; Crouter et al., 1992; Galambos & Walters, 1990; Greenhaus, Bedeian & Mossholder, 1987; Gutek et al., 1991; Judge, Boudreau & Bretz, Jr., 1994; O'Driscoll et al., 1992; Parasuraman, Greenhaus, Rabinowitz, Bedeian & Mossholder, 1989; Small & Riley, 1990). In turn, excessive time demands from family (i.e., housework and child care) may precede FIW (Baruch & Barnett, 1986; Gutek et al., 1991;

Judge et al., 1994). The norms and requirements of a role may result in interrole conflict.

According to the conflict model, interrole conflict may also arise from sacrifices made within one role due to participation in another role. High role involvement, which is a measurement of psychological identification with a role (Blau, 1985), may lead to sacrifices in another role. Job involvement is a potential antecedent of WIF (Crouter et al., 1992; Duxbury & Higgins, 1991; Thompson & Blau, 1993; Wiley, 1987; Williams & Alliger, 1994), while family involvement is a potential antecedent of FIW (Frone et al., 1992a; Williams & Alliger, 1994).

What distinguishes these three sources of interrole conflict? One possibility is the extent to which controllability plays a part in whether interrole conflict occurs. The first proposed source of interrole conflict, pressures from one role interfering with another role, typically occurs without much control on the part of the individual. An employee may unexpectedly show little patience for an assistant as a result of worrying about a sick child at home. The controllability involved in interrole conflict when it results from the norms and requirements of a role is more variable. Whether control is involved in this second proposed source of interrole

conflict may depend on the explicitness of the norms and requirements. An employee's Monday to Friday 9 am to 5 pm schedule may conflict with his or her child's soccer game; there is little control, work interferes with family obligations. Alternatively, if an employer or coworkers implicitly expect that work take priority over family obligations, more control is involved. The employee may or may not concede to their expectations. Conceding to expectations may require working overtime and disrupting family life. Finally, the third source of interrole conflict, sacrifices in one role due to participation in another role, seems to involve the greatest amount of control. An employee sacrifices work by taking a two-hour lunch break from work to buy a gift for a partner. Consequently, the degree to which control is involved when work and family interfere with each other may vary according to the source of the conflict.

Outcomes of WIF and FIW

What are the consequences of interrole conflict? That is, what is the outcome when participation in work adversely affects participation in family life, or vice versa? Consequences of FIW may include decreased organizational commitment (Wiley, 1987), increased job distress (Frone et

al., 1992a; Judge et al., 1994), psychological symptomology (Hughes & Galinsky, 1994), and depression (Frone et al., 1992a; Reifman, Biernat & Lang, 1991). Possible consequences of WIF include life stress (Parasuraman et al., 1989), marital maladjustment, psychological symptomology (Hughes & Galinsky, 1994), depression (Googins & Burden, 1987; Reifman, et al., 1991; Thiede Thomas & Ganster, 1995), burnout (Bacharach et al., 1991), and job stress (Judge et al., 1994).

Decreased satisfaction with the disrupted domain is another possible outcome of interrole conflict. If individuals are not able to participate in one role effectively or fully because of interference from another role, they may experience reduced satisfaction in the interrupted role. The interfering role may prevent them from having their needs fulfilled in another role; these unfulfilled needs may result in reduced satisfaction. FIW has been associated with reduced job satisfaction (Rudd & McKenry, 1986; Thompson & Blau, 1993; Wiley, 1987) and decreased quality of work life (Duxbury & Higgins, 1992). This may not always occur (O'Driscoll et al., 1992; Judge et al., 1994). In turn, WIF has been associated with decreased life satisfaction (Aryee, 1992; Bedeian et al., 1988; Bacharach et al., 1991; Duxbury & Higgins, 1991; Googins &

Burden, 1987; Judge et al., 1994; Kopelman et al., 1983; Wiley, 1987), decreased quality of life (Greenhaus et al., 1987; Parasuraman et al., 1989), decreased marital satisfaction (Bedeian et al., 1988), decreased quality of family life (Duxbury & Higgins, 1991), and decreased satisfaction with off-the-job activities (O'Driscoll et al., 1993). Reduced life satisfaction in connection with WIF may result from unfulfilled family roles which, in turn, reduce overall life satisfaction.

Alternatively, interrole conflict may result in reduced satisfaction with the interfering domain. Individuals may become resentful when one part of their lives is interfering with another; the outcome of this resentment may be reduced satisfaction with the source of the interference. Decreased life satisfaction has been related to FIW (Wiley, 1987). In turn, decreased job satisfaction has been identified as a potential outcome of WIF (Aryee, 1992; Burke, 1988; Duxbury & Higgins, 1991; Googins & Burden, 1987; Parasuraman et al., 1989; Parasuraman et al., 1992; Thiede Thomas & Ganster, 1995; Zahrly & Tosi, 1989). Several studies have not found this relationship between WIF and job satisfaction (Bacharach et al., 1991; Bedeian et al., 1988; Burke, 1993; Kopelman et al., 1983; O'Driscoll et al., 1992; Thompson & Blau, 1993; Wiley, 1987).

What could account for the inconsistent empirical findings regarding the relationship between job satisfaction and WIF? Some variables found to be related to WIF or FIW may be related only indirectly via the observed relationship between WIF and FIW (Frone et al., 1992a; Gutek et al., 1992; Thompson & Blau, 1993; Wiley, 1987). Specifically, Frone and others (1992a) claim that the significant relationship between job satisfaction and WIF may be the result of WIF predicting FIW which, in turn, reduces job satisfaction.

An indirect relationship between job satisfaction and WIF may, instead, be mediated by life satisfaction: WIF leads to decreased life satisfaction which, in turn, leads to decreased job satisfaction. Support for this comes from a meta-analysis which observed a correlation of .44 between job and life satisfaction (Tait, Youtz Padgett & Baldwin, 1989). Cross-sectional studies have found a bidirectional relationship between job and life satisfaction (Judge, Boudreau, & Bretz, 1994; Judge & Hulin, 1993; Judge & Locke, 1993; Lance, Lautenschlager & Sloan, 1989; Rice, Frone & McFarlin, 1992; Schmitt & Bedeian, 1982). This bidirectional relationship was also evident in a longitudinal study (Judge & Watanabe, 1993). However, there are other reports of a unidirectional relationship or a

nonsignificant relationship between these two variables (Kopelman et al., 1983; Sekaran, 1985).

There are two explanations for why job satisfaction might increase life satisfaction. First, if individuals consider their job satisfaction when assessing their overall life satisfaction, then job satisfaction should influence life satisfaction. Job satisfaction may be an integral component of life satisfaction (Duxbury & Higgins, 1991; Harlow & Newcomb, 1990; Holland Benin & Cable Nienstedt, 1985; Linn, Yager, Cope & Leake, 1986). Second, job satisfaction predicting life satisfaction suggests a positive spillover between work life and nonwork life. The satisfaction from the employee role may positively influence participation in nonwork roles, and encourage greater satisfaction in these roles, thereby increasing life satisfaction. Life satisfaction predicting job satisfaction may also be explained as the result of positive spillover. Satisfaction with family, which is a likely component of life satisfaction (Argyle, 1987; Duxbury & Higgins, 1991; Holland Benin & Cable Nienstedt, 1985; Kopelman et al., 1983; Rice et al., 1992; Wozniak, Draughn & Knaub, 1993), may result in an increase in job satisfaction.

In order to appreciate the reported relationship between interrole conflict and job and life satisfaction, it

is useful to explore other variables associated with these satisfaction indices. The relationship between job satisfaction and the following job characteristics are well-documented: job autonomy, skill variety, task significance, feedback, perceived control, and a sense of competence (Drory & Shamir, 1988; Fox, Dwyer & Ganster, 1993; Hackman & Oldman, 1980; Hendrix, Ovalle & Troxler, 1985; Judge & Locke, 1993; Lambert, 1991; Lance & Richardson, 1988; Schmitt & Bedeian, 1982; Sekaran, 1989). Co-worker and supervisor support were also associated with increased job satisfaction (Drory & Shamir, 1988; Israel, House, Schurman, Heaney & Mero, 1989; Lance et al., 1989; Mottaz, 1986; Thiede Thomas & Ganster, 1995). Associations between job involvement and job satisfaction have ranged from .30 to .59 (Brooke, Russell & Price, 1988; Elloy, Everett & Flynn, 1991; Kanungo, 1982; Karambayya & Reilly, 1992; Paterson & O'Driscoll, 1990; Wiley, 1987). Reduced job satisfaction has been associated with the following job stressors: role overload, ambiguity, and conflict (Bacharach, Bamberger & Conley, 1991; Bedeian, Burke & Moffett, 1988; Brooke, Russell & Price, 1988; Cooke & Rousseau, 1984; Coverman, 1989; Drory & Shamir, 1988; Kopelman et al., 1983; Parasuraman et al., 1992; Robinson & Skarie, 1986).

Family domain variables have also been linked to job satisfaction. A husband's and child's support for their wife/mother's job and work hours was associated with increased job satisfaction for the wife/mother (Rudd & McKenry, 1986). Satisfaction with time for family and personal life was directly associated with job satisfaction for female physicians (Richardson & Burke, 1991). Personal life stress (Bhagat, McQuaid, Lindholm & Segovis, 1985) and parental role pressures (Lewis & Cooper, 1987) were associated with reduced job satisfaction. This evidence of family influencing job satisfaction further supports the theory that work and family are associated.

Life satisfaction is composed of the following factors: satisfaction with relationships, purposeful living, and work and health satisfaction (Harlow & Newcomb, 1990). Family and job satisfaction, along with marital satisfaction, may be important components of life satisfaction (Coverman, 1989; Holland Benin & Cable Nienstedt, 1985; Judge & Locke, 1993; Lance et al., 1989). Support from family and friends has been associated with increased life satisfaction (Abbey & Andrews, 1985; Bamberg, Ruckert, & Udris, 1986; Klein, Tatone & Lindsay, 1989; Levinsohn, Redner & Seely, 1991). Wives who reported that their husbands offer support in terms of child care, housework and general assistance, as

well as understand their wives' job demands, also reported increased life satisfaction (Gray, Lovejoy, Piotrkowski & Bond, 1990). Life satisfaction of dual-earner couples with children was positively associated with satisfaction with one's partner's contribution to domestic tasks and negatively associated with parental role pressures (Lewis & Cooper, 1987). Finally, total life stress and personal life stress were associated with decreased life satisfaction (Abbey & Andrews, 1985; Bhagat, McQuaid, Lindholm & Segovis, 1985). Family seems to contribute extensively to an individual's overall life satisfaction.

Examining WIF and FIW, while controlling for their relationship with each other, may help to determine the outcomes specific to each type of interrole conflict. If both job and life satisfaction are considered, then whether reduced satisfaction occurs with the unfulfilled domain, the interfering domain, or both can be tested. The relationship between job and life satisfaction can also be explored.

Gender Differences in Interrole Conflict (WIF & FIW)

Interrole conflict may not operate in the same manner for men and women. Studies that have investigated WIF and FIW using individuals from dual-earner couples have reported significant gender differences. The number of work hours

was significantly associated with increased WIF for males, but not for females (Izraeli, 1993). The positive association between job involvement and WIF was stronger for females than for males (Higgins, Duxbury & Irving, 1992). In contrast, perceived expectations of supervisors and coworkers regarding the priority of work over family (i.e., work-role expectations) were more strongly associated with increased WIF for males than for females (Higgins, Duxbury, et al., 1992). In addition, WIF was associated with decreased job satisfaction for women, but not for men (Izraeli, 1993). In terms of FIW, the number of hours of family duties (housework and child care) was associated with increased FIW for females, but not for males (Burley, 1991).

Other studies have reported gender differences but have not restricted their sample to members of dual-earner couples (Bedeian et al., 1988; Beutell & O'Hare, 1987; Crouter, 1984; Greenhaus et al., 1987; Gutek et al., 1991; Lambert, 1991). Careful consideration should be given to the nature of the sample used in these studies. Before gender differences can be established as part of interrole conflict, other factors that may explain these differences must be eliminated. Whether a spouse is also employed outside of the home is a crucial factor in interrole conflict. WIF and FIW may be less relevant for individuals,

particularly males, who have a spouse whose primary responsibilities are child care and housework. Consequently, reporting a gender difference when the employment status of the spouse is not considered may be misleading. A reported gender difference in interrole conflict may be simply due to the presence or absence of a spouse who primarily assumes familial responsibilities and who prevents interrole conflict from occurring in the first place. A more informative gender comparison would involve sampling dual-earner couples who are both employed outside the home. Members of dual-earner couples are usually more engaged in the challenge of balancing work and family; consequently, interrole conflict may be more critical.

By investigating individuals as members of a couple, the responses of husbands and wives can be compared in terms of how they manage work and family. The extent to which work and family interfere with each other for an individual may be influenced by the work-family interface of that individual's spouse. "The extent to which an employee's family life influences his or her work life [or vice versa] is determined in part by that individual's role as a family member" (Crouter, 1984, p. 436). If the work-family interface of an individual is influenced by a spouse, then the balancing of work and family should be examined from a

family perspective. Uncovering variables that dictate how a couple manages work and family - what compromises will be made and who will make them - may reveal how interrole conflict operates within dual-earner couples. This may involve such factors as individual role involvement, expectations, and gender.

Gender should be examined as "it is a function of family roles and responsibilities which, in our society, are traditionally based upon gender" (Crouter, 1984, p. 435). The relevant question becomes: How are individuals managing the work-family interface as members of a couple? Women's work hours have been associated with a decrease in their husbands' WIF in some cases (Izraeli, 1993), but not others (Galambos & Walters, 1990). In contrast, husbands' work hours have been associated with an increase in work interfering with the role of mother (Aryee, 1992). It is not clear how to interpret these reported gender differences. Nevertheless, a spouse's work situation, in terms of time pressures, may influence the extent to which work interferes with family. For men, there was also a significant interaction between their job involvement and that of their wives, in terms of WIF. Reported WIF for husbands was highest when couples differed in their job involvement; WIF was lowest when they had the same level of

job involvement (Greenhaus et al., 1989). Similar job involvement may facilitate better arrangements between husband and wife for balancing work and family. Finally, WIF of wives was associated with decreased family satisfaction on the part of their husbands (Parasuraman et al., 1992).

Women who reported a discrepancy between the number of hours of home duties performed by themselves and their husbands also tended to report higher FIW (Burley, 1991). This perceived inequity seems to promote greater interrole conflict, suggesting that couples who do not manage work and family as a team experience greater interrole conflict.

This empirical evidence of interrole conflict suggests that WIF and FIW are distinct constructs. Although WIF and FIW are associated, an individual may report one type of interrole conflict without reporting the other. WIF and FIW appear to have antecedents and consequences that are unique to each type, with men and women seeming to have different experiences of these two conflict states.

Model of Interrole Conflict

Separate models will be developed for WIF and FIW. These models will be tested while controlling for the predicted correlation between WIF and FIW.

H1: There will be a significant positive association between WIF and FIW for both husbands and wives.

A Model of Work Interfering with Family (WIF)

The conceptual model of WIF is presented in Figure 1. Based on associations identified in the literature, the proposed antecedents of WIF are: number of hours in employment or job-related activities per week, job involvement, and work-role expectations. Job involvement is the extent to which work is central to an individual and to his or her psychological identity (Blau, 1985). Job involvement is a measure of emotional involvement in work, whereas the number of work hours is a measure of temporal involvement in work. Work-role expectations reflect an individual's perceptions regarding coworkers' and superiors' expectations about the degree to which work should take priority over all other activities.

These variables should act as antecedents of WIF for a number of reasons. First, excessive time requirements at work leave little time to fulfil the roles of parent and spouse; as the number of work hours increase, so too should the reported WIF (H2). Similarly, the number of hours worked by a spouse should be associated with decreased WIF for the partner (H3). The more a spouse works, the more an individual will be forced to make arrangements so that work will not interfere with family life. This presupposes that couples make agreements, either implicitly or explicitly, concerning the management of familial responsibilities and obligations. The more hours a spouse spends on employment-related activities, the more the individual may be responsible for family tasks in the spouse's absence. These increased familial responsibilities may demand that adjustments be made to decrease WIF, in so far as the individual is able to prevent its occurrence. This is in contrast to a member of a single-earner couple who may not see such adjustments as necessary since his or her spouse will fulfill any important familial responsibilities. This hypothesis illustrates the proposition that individuals do have some control over the level of interrole conflict in their lives.

H2: The number of work hours for individuals will be associated with their WIF for both husbands and wives, and this relationship will be positive.

H3: The number of work hours of husbands will be associated with the WIF of the wives and vice versa, and this relationship will be negative.

Job involvement is proposed as an antecedent of WIF since the more involved one is in work, the more sacrifices one may be willing to make for one's job. It is likely that these sacrifices will include allowing work to interfere with participation in family life (H4). This hypothesis also illustrates the proposition that individuals do have some control over the level of interrole conflict in their lives. Lastly, perceived work-role expectations are implicit work norms that may result in an employee's work interfering with family life to a greater degree (H5).

H4: Job involvement will be associated with WIF for both husbands and wives, and this relationship will be positive.

H5: Work-role expectations will be associated with WIF for both husbands and wives, and this relationship will be positive.

Reduced life satisfaction is proposed as a consequence of WIF (H6). If work prevents full and effective participation in family life, then there should be less satisfaction with nonwork life. Life satisfaction is a rough measure of satisfaction with nonwork life. Individuals' general degree of life satisfaction involve a complex balance of their specific satisfactions and dissatisfactions with their different roles (Losocco & Roschelle, 1991).

H6: WIF will be associated with life satisfaction for both husbands and wives, and this relationship will be negative.

Reduced job satisfaction is the second proposed outcome of WIF (H7). It is expected that individuals' satisfaction with their job decreases when it interferes with their family life. In addition, a significant bidirectional relationship is proposed between the outcome variables, job and life satisfaction (H8). Two reasons for this

relationship seem plausible: positive spillover between work and family, and the result of job satisfaction being considered when assessing overall life satisfaction.

H7: WIF will be associated with job satisfaction for both husbands and wives, and this relationship will be negative.

H8: Job satisfaction and life satisfaction will be associated for both husbands and wives, and this relationship will be positive and bidirectional.

There may be significant relationships between the antecedents of WIF. First, job involvement has been associated with increased work hours (H9) for both women and men (Paterson & O'Driscoll, 1990; Rice, McFarlin, Hunt, & Near, 1985; Yogev & Brett, 1985). However, one study reported this relationship for women only (Lambert, 1991). In addition, husbands' job involvement may be associated with decreased work hours on the part of their wives (H10). Traditional gender-role expectations suggest that family should take priority over work for women, and that work should take priority over family for men (Pleck, 1977). These expectations may encourage women to accommodate their

work situation in response to that of their husbands. However, it is less frequent that men will moderate their work hours to accommodate their wives' job involvement, given the expected top priority of work.

H9: Job involvement will be associated with the number of work hours for both husbands and wives, and this relationship will be positive.

H10: The job involvement of husbands will be associated with the number of work hours of wives, and this relationship will be negative.

Work-role expectations are associated with the following: (a) internalized beliefs and attitudes about the personal relevance of work, (b) the standards of work performance, and (c) the way that personal resources are committed to work performance (Aryee, 1992). In so far as job involvement and gender-role expectations influence internalized beliefs and attitudes about work, perceived work-role expectations should be associated with job involvement and with gender. Firstly, high work-role expectations should be associated with higher job involvement for both men and women (H11); this relationship

has been found in past research (Higgins, Duxbury, and Irving, 1992). Secondly, high work-role expectations should be directly associated with increased work hours for men only (H12), since reported work-role expectations may be nullified by the countering effect of women's gender-role expectations. Women may feel pressure from work to make their job top priority, but they may also feel societal pressures to make family their top priority. The end result would be no accompanying increase in work hours.

H11: Work-role expectations will be associated with job involvement for both husbands and wives, and this relationship will be positive.

H12: Work-role expectations will be associated with the number of work hours for men only, and this relationship will be positive.

Finally, there should be a significant relationship between job involvement and job satisfaction for both men and women (H13). It is expected that greater involvement in one's job will enable one to better fulfill one's vocational needs and, therefore, increase job satisfaction.

H13: Job involvement will be significantly associated with job satisfaction for both wives and husbands, and this relationship will be positive.

A Model of Family Interfering with Work (FIW)

The conceptual model of FIW is illustrated in Figure 2. The proposed antecedents of FIW are the number of hours of home duties per week (i.e., child care and housework), family involvement, and a lack of perceived spousal support.

Family involvement is the degree of psychological identification with the roles of parent and spouse. The number of hours of family duties measures temporal involvement, whereas family involvement measures emotional involvement in family life. Spousal support measures the amount of perceived support received from a spouse.

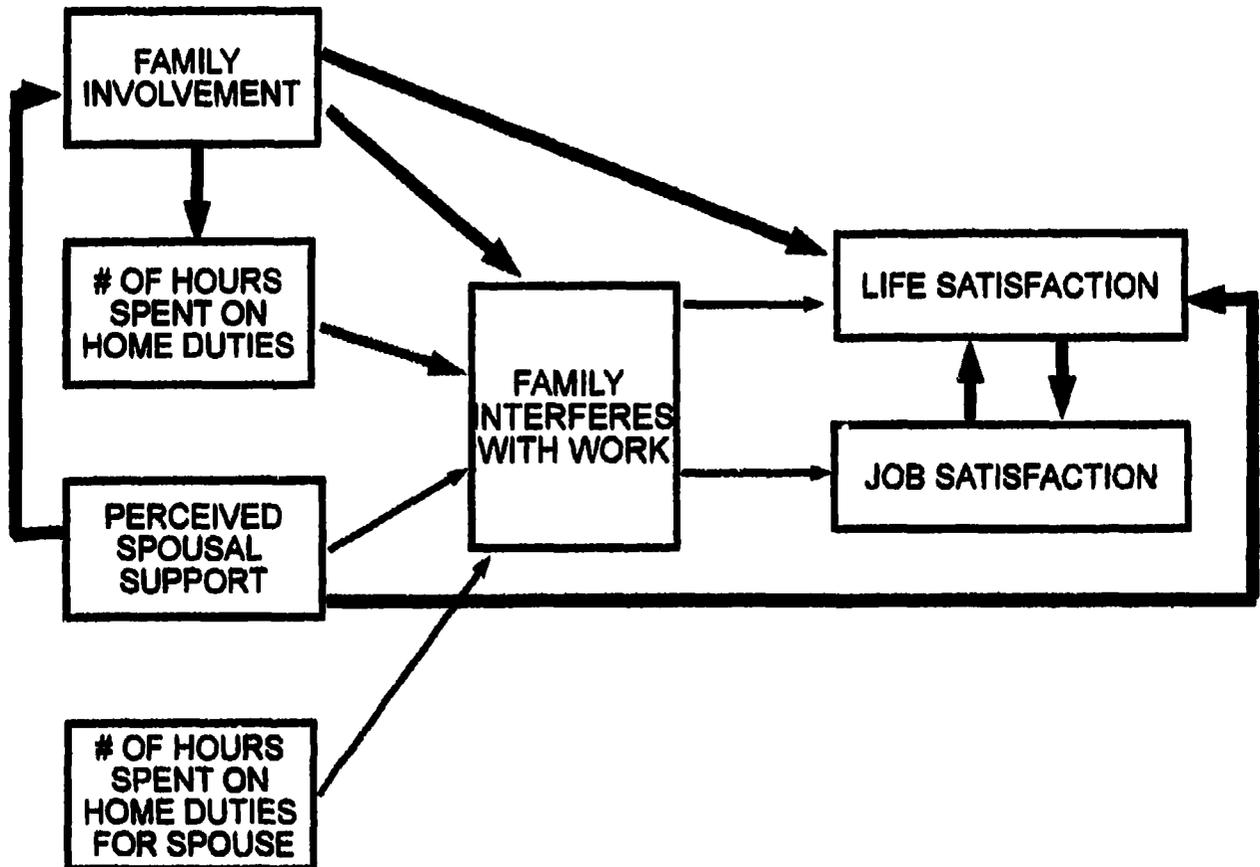


Figure 2 Proposed Model of FIW.

Hypothesized positive correlations are indicated by thick arrows, whereas the thinner arrows signify proposed negative correlations. The grey arrow between hours of home duties and FIW signifies a path that is proposed only for wives.

These variables should act as antecedents of FIW for a number of reasons. First, excessive time demands from family life may leave little time to fulfill the role of employee; consequently, the number of hours spent in housework and child care should be associated with greater FIW. The number of hours of family duties should be associated with FIW for women, but not for men (H14). Past research shows that ultimate responsibility over child care and housework usually rests with the wife (Baruch & Barnett, 1986; Basevitz, Picard & Lee, 1995; Gray, Lovejoy, Piotrkowski & Bond, 1990; Leslie, Anderson & Branson, 1991). Since child care and housework may require activities that cannot be scheduled, or arise unexpectedly, family duties may likely interfere with wives' jobs. In contrast, husbands have more flexibility in choosing when they do housework or childcare duties, so they may ensure that such activities do not interfere with their job. As well, the number of hours spent in child care and housework by a spouse will be associated with decreased FIW for the partner (H15). In other words, a spouse's level of participation in family life may alleviate or exacerbate the degree that family interferes with work for an individual.

H14: The number of hours spent on family duties will be associated with FIW for wives only, and the relationship will be positive.

H15: The number of hours spent on family duties by a spouse will be associated with FIW for both husbands and wives, and this relationship will be negative.

Secondly, family involvement is proposed as an antecedent of FIW since the more involved individuals are in their family, the more sacrifices they may be willing to make for their family. These sacrifices may include making fewer efforts to prevent FIW from occurring (H16). This hypothesis illustrates the proposition that individuals do have some control over the level of interrole conflict in their lives. A third proposed antecedent of FIW is spousal support. If a husband and wife do not support each other, they may not manage work and family as a couple who shares equitably in the familial responsibilities. Conversely, support from a spouse may enable an individual to manage the demands of work and family without experiencing interrole conflict. Therefore, spousal support may lessen FIW (H17).

H16: Family involvement will be associated with FIW for both husbands and wives, and this relationship will be positive.

H17: Perceived spousal support will be associated with FIW for both husbands and wives, and this relationship will be negative.

Decreased job satisfaction is proposed as a consequence of FIW (H18). Job satisfaction is the overall affective response to the total work situation (Mottaz, 1986). If family is interfering with full and effective participation at work, then the work environment should become a less satisfying place. In addition, life satisfaction is proposed as a significant antecedent of FIW (H19). Reduced life satisfaction may be the result of reduced satisfaction with family life when family responsibilities interfere with work. As was the case for the model of WIF, there should be a significant and bidirectional relationship between job and life satisfaction (refer to H8).

H18: FIW will be associated with job satisfaction for both husbands and wives, and this relationship will be negative.

H19: FIW will be associated with life satisfaction for both husbands and wives, and this relationship will be negative.

There should also be significant relationships between the antecedents of FIW. Family involvement is expected to be associated with an increase in temporal involvement in child care and housework (H20). As well, perceived spousal support should contribute to greater involvement in one's family (H21). Finally, spousal support (H22) and family involvement (H23) are expected to be associated with increased life satisfaction. These predicted associations with life satisfaction reflect the finding that family satisfaction is an integral component of life satisfaction.

H20: Family involvement will be associated with the number of hours of home duties for both husbands and wives, and this relationship will be positive.

H21: Perceived spousal support will be associated with family involvement for both husbands and wives, and this relationship will be positive.

H22: Family involvement will be associated with life satisfaction for both husbands and wives, and this relationship will be positive.

H23: Perceived spousal support will be associated with life satisfaction for both husbands and wives, and this relationship will be positive.

By controlling for the relationship between WIF and FIW and by testing two separate models, the antecedents and consequences that are specific to WIF and to FIW can be determined.

Method

Sample

Subjects were selected from a sample of families who were participating in a larger three-year longitudinal study. Families were recruited via the Halifax City and County School Boards in Nova Scotia, Canada. Letters were sent home with children in grades four and five inviting the family to participate. For a family to qualify for participation in the larger study, the target child must

have had a biological sibling who was no more than four years older, and they must have been living with both biological parents. Families wishing to participate were asked to return a participant reply form. The interested families were contacted and provided with more details about the study, and a time was arranged for the first family visit. Of the families who returned the participant reply forms, there was a 99% acceptance rate for participation. All families were paid \$25 for their participation.

For this study, the sample of couples was selected from the larger sample. They were selected based on the requirement that both partners were employed outside of the home; the number of hours of employment was not a consideration for selection. Only information collected in year three of the larger study is reported here.

The sample used in this study consisted of 88 predominately white, dual-earner married couples with children. 52.3% of the couples had two children, 37.5% had three children, and the remaining 10.2% had four children. Children ranged in age from 3 to 29 years old, but every couple has at least two children between the ages of 10 and 17 years old. Wives ranged in age from 35 to 52 years ($M = 42$, $SD = 3.539$), and husbands, from 36 to 53 years old ($M = 44$, $SD = 3.766$). For wives, 36.4% had attended

professional or graduate school, 35.2% had attended college or trade school, and 28.4% had completed high school. For husbands, 33.3% had attended graduate or professional school, 52.9% had attended college or trade school, and 13.8% had completed high school.

Families were predominantly middle- to upper-middle class with an average family income above \$50,000; this average income is typical of Canadian dual-earner families (Statistics Canada, 1995). The occupations of the husbands and wives were categorized based on the National Occupation Classification (Employment & Immigration Canada, 1993). Management and skilled administrative occupations were held by 10% of the husbands and 14% of the wives, professional and paraprofessional occupations were held by 17% of both husbands and wives, and sales occupations were held by 13% of the husbands and 65% of the wives. Clerical occupations were held by 2% of the husbands and 3% of the wives, and technical and skilled occupations were held by 1% of the wives and 27% of the husbands. Finally, husbands also held occupations in transport, equipment operation, installation, maintenance, and primary industry (31%). Comparing this occupational breakdown to the census data obtained in 1993 on Canadian dual-earner couples (Statistics Canada, 1995), fewer wives in the sample held professional and clerical

occupations, but more were in sales. For the husbands in the sample, fewer held managerial positions than in the census data, whereas more held technical and skilled occupations. 45% of the wives and 3% of the husbands were employed on a part-time basis (30 hours per week or less); the remainder were employed more than 30 hours per week.

Procedure

Data were collected as part of the ongoing longitudinal study. Each family was visited in their home for approximately two hours. During this time, the couples completed a set of measures. At the start of the interview all participating family members were seated together and the procedure of the study explained and informed consent obtained. To ensure confidentiality and independence of responding, respondents were asked to complete the measures without consulting their spouse. The respondents returned the completed booklets before the interviewer left the house.

Measures

Interrole Conflict

Family Interfering with Work (FIW). The Interrole Conflict Scale (O'Driscoll et al., 1992) was used to measure

FIW. The scale measures "the extent to which concerns, demands, emergencies, and commitments" outside of work interfere with "the fulfilment of goals and responsibilities" at work (O'Driscoll et al., 1992, p. 274). The scale has seven items and uses a Likert scale with responses ranging from 1 always to 5 never. An example of an item is "Emergencies outside of work force me to alter my work schedule". Scores on each item were summed with a high total score indicating high FIW. Internal consistency was previously reported as .79 (O'Driscoll et al., 1992). In the present study, internal consistency was .74 for men and .83 for women.

Work Interfering with Family (WIF). The Interrole Conflict Scale (Kopelman et al., 1983) was used to measure WIF. The scale consists of eight items scored on a Likert scale ranging from 1 strongly agree to 5 strongly disagree. Three items pertain to excessive work time, one deals with schedule conflicts, two items address fatigue from work, and two items deal with excessive work demands. An example of an item is "My work takes up time that I'd like to spend with my family". The scores on the items are summed so that a high total score indicates high WIF. A factor analysis yielded only one factor and a test of internal consistency resulted in an alpha of .89 (Kopelman et al., 1983). This

scale had an internal consistency of .89 for men and .90 for women in the present study.

Work variables

Number of hours of employment or job-related activities (WK#). Respondents were asked "Given a typical week in your life, circle the appropriate number of hours spent on employment or job-related activities". Subjects had a choice of seven response categories ranging from none to over 50 hours. Part-time work was classified as spending less than 31 hours on employment or job-related activities per week.

Job Involvement (JI). The Job Involvement Scale (Kanungo, 1982a) measures "a cognitive or belief state" (p.342) considering the extent of psychological identification with one's job. It consists of 10 items with a Likert scale ranging from 1 strongly agree to 6 strongly disagree (Kanungo, 1982b). Example items are "I live, eat, and breathe my job" or "Usually I feel detached from my job". Item responses were summed with a high total score indicating high job involvement. Test-retest reliability was reported as .85 (Kanungo, 1982b), with an internal consistency estimate of .87 (Kanungo, 1982b). Paterson and O'Driscoll (1990) reported alpha coefficients of .81 and .85

at two test periods with a test-retest reliability of .87. For the present study, a test of internal consistency resulted in an alpha of .88 for men and .84 for women.

Work-Role Expectations (WRE). The Work-Role Expectations Scale (Cooke & Rousseau, 1984) measures an individual's perceptions regarding coworkers' and superiors' expectations about the degree to which work should take priority over family. The scale consists of four items; responses are made on a Likert scale ranging from 1 very inaccurate to 7 very accurate. An example of an item is "My coworkers and supervisors expect that any person doing a job such as mine should view work as the most important part of their life". Internal consistency was reported to be .88 (Cooke & Rousseau, 1984), with another reporting alphas of .81 for males and .83 for females (Duxbury & Higgins, 1991). Four additional items were added in the present study to explore other areas where work-role expectations may be in conflict with family interests: having a sick child or a newborn baby, being offered a job transfer, or making work schedule adjustments. Item responses were summed to create a total score; a high total score indicates high perceived work-role expectations. A test of the internal consistency of the original scale plus the additional items resulted in an alpha of .87 for males and .88 for females.

Family Variables

Number of hours spent on family duties (FAM#).

Respondents were asked "Given a typical week in your life, circle the appropriate number of hours spent on domestic work/housework". The same question was asked regarding primary child care activities. Subjects had a choice of seven response categories ranging from none to over 50 hours. The responses on these two questions were added together as a measure of time spent on family duties.

Family involvement (FI). The Family Involvement Scale (Yogev & Brett, 1985) consists of eleven items which were modelled after the Lodahl and Kejner (1965) job involvement scale. Family involvement measures the degree to which an individual "identifies psychologically with family roles, the importance of family roles to the person's self-image and self-concept, and the individual's commitment to family roles" (Yogev & Brett, 1985, p. 755). The scale focuses on two family roles: spouse and parent. Examples of items are "A great satisfaction in my life comes from my role as a parent" or "Nothing is as important as being a spouse". Items are measured by a Likert scale ranging from 1 strongly disagree to 5 strongly agree. Item responses were summed to create a total score; a high score indicates high family involvement. Internal consistency has been reported to be

.80 (Yogev & Brett, 1985). For the present study, internal consistency estimates were .79 for men and .76 for women.

Spousal Support (SS). The Spouse Support Scale measures the amount of informational, emotional, appraisal, and instrumental aid from one's spouse as perceived by the recipient (House, 1981; as cited by Parasuraman et al., 1992). It is an eight-item questionnaire (Parasuraman et al., 1992). Responses are made on a Likert scale ranging from 1 almost none to 5 a great deal. An example of an item is "To what extent does your spouse praise you for your accomplishments?". Responses on the eight items were summed with a high score indicating high perceived spousal support. Previously, internal consistency has been reported as .91 for males and .86 for females (Parasuraman et al., 1992). Internal consistency in the present study was .81 for men and .84 for women.

Satisfaction Indices

Life Satisfaction (LS). Life satisfaction was measured via an index of well-being (Campbell, Converse, & Rodgers, 1976). The index is a two-part measure consisting of a set of eight items on semantic differential scales (e.g., extremely interesting to extremely boring; extremely rewarding to extremely disappointing), and a single-item

assessing general life satisfaction. The item assessing overall life satisfaction uses a response scale that ranges from completely satisfied to completely dissatisfied. All items use a seven-point response scale. The satisfaction item is more heavily weighed than the other eight items in determining the total score. A high total score indicates high life satisfaction. The test-retest reliability for 285 respondents tested eight months apart was reported as .43 (Campbell et al., 1976), with internal consistency reported to be .89 (Rice et al., 1985). The internal consistency estimates found in this study were .87 for men and .89 for women.

Job Satisfaction (JS). The items used to measure general job satisfaction were taken from the Job Diagnostic Survey (Hackman & Oldman, 1980). This job satisfaction measure has been used in other studies of interrole conflict (Kopelman et al., 1983; Parasuraman et al., 1992; Wiley, 1987). It is a three-item measure with a Likert scale ranging from 1 disagree strongly to 7 agree strongly. An example of one of the items is "I frequently think of quitting this job". Scores on the three items are summed so that a high total score indicates high job satisfaction. Parasuraman and others (1992) reported an alpha coefficient of .82 for male subjects and .80 for females. Internal

consistency in this study was .81 for males and .75 for females.

Data Analysis

The models of WIF and FIW were tested through structural equation modelling. In order to test separate models of WIF and FIW, any correlation between WIF and FIW was controlled. This was accomplished by regressing FIW against every variable in the WIF model, and then analyzing the correlation matrix of the resulting residual terms. The effects of WIF were controlled for in a similar way for the variables in the FIW model.

The correlation matrices were converted into covariance matrices which were analyzed using LISREL 7 (Joreskog & Sorbon, 1989). All variables were entered as y-variables to test associations between the proposed antecedents. Maximum likelihood estimates as well as goodness-of-fit indices were obtained for the models. Indices that estimate the goodness-of-fit of a single model, as well as comparative fit indices, were calculated. It should be cautioned that the goodness of fit index (GFI), which is obtained from LISREL, may be a faulty estimate, since our sample is significantly smaller than a recommended sample of at least 200 in size (Mulaik, Van Alstine, Bennett, Lind, & Stilwell,

1989). Other comparative fit indices were chosen based on their robustness even with small sample sizes (Bentler, 1990). The adjusted GFI (AGFI) has also been criticized for its lack of a meaningful zero point (Mulaik et al., 1989). For these indices, values of less than .90 usually mean that the model can be improved substantially (Marsh, Balla, & McDonald, 1988). In addition, the ratio of χ^2 to its degrees of freedom was calculated; ratios of less than one indicate capitalization on chance while model fitting, whereas ratios of greater than two suggest further improvement of the fit (Loehlin, 1987).

The models were corrected and simplified as suggested in the literature on structural equation modelling (Saris & Stronkhorst, 1984). First, the models were corrected based on the modification indices, thereby enabling a comparison between the original model and other nested models. The superiority of a nested model was determined by a significant decrease in the χ^2 test of goodness-of-fit (Loehlin, 1987). However, any modification of the model must be viewed with caution as it capitalizes on chance; hence, any modification was done only if it fit with the theoretical framework. Finally, the models were simplified by eliminating nonsignificant relationships that did not

significantly reduce the overall goodness-of-fit, as determined by a nonsignificant change in χ^2 ($\Delta\chi^2$).

In addition to testing the hypothesized models, the obtained (i.e., corrected and simplified) models of WIF and FIW were combined to form an exploratory model of interrole conflict for husbands and for wives. Since both WIF and FIW were entered in these models, the correlation matrices that were analyzed did not control for the relationship between these two variables. Variables were identified that were not part of the hypothesized models but were correlated with either WIF or FIW ($p \leq .01$). These variables were also included in the exploratory models. Caution should be used in generalizing from these exploratory models since they were only partially based on the original hypotheses, and they are based on the results of a small sample.

Results

Dimensionality of the Measures

Before a test of the models was performed, exploratory factor analysis of the scales was conducted to ensure that the measures were indeed unidimensional. Only those measures which used a Likert-type response scale were

examined. Factors were extracted using the Principal Axis Factor method. The scales were factored analyzed for men and women separately. Problem items were identified by examining the correlation matrix of items, the Kaiser-Meyer-Olkin measure of sampling adequacy for each item, the initial communalities, and Cronbach's alpha. Problem items were dropped from both the Interrole Conflict Scale (O'Driscoll et al., 1992) and the Family Involvement Scale (Yogev & Brett, 1985). For the scale measuring FIW, the item "I can't sleep because of thinking about non-work related things that I have to get done" was dropped from the scale. For the scale measuring family involvement, the items "Quite often I plan ahead the next day's activities" and "Nothing is as important as being a spouse" were dropped from the scale.

To determine the number of factors, the Kaiser rule (Loehlin, 1987) was applied, combined with an examination of the scree plot for each scale. On this basis, all measures were deemed to consist of only one factor except for the Family Involvement Scale for females. For the wives in our sample, two factors were extracted. However, the second factor accounted for markedly less variance (10.1%) than does the primary factor (29.3%). As well, when the factors were rotated via Quartimax, the items that loaded on the

second factor made the factor not easily interpretable. For these reasons, the Family Involvement Scale was deemed to be primarily a one-factor scale.

To further ensure the unidimensionality of our measures, the additional requirement that each item have a minimum factor loading of .30 on the first factor (Nunnally, 1978) was also adopted. This resulted in dropping the following item in the Job Involvement Scale (Kanungo 1982a, 1982b) due to insufficient loading for female respondents: "Usually I feel detached from my job". Past research has recommended dropping this item due to insufficient factor loading (Blau, 1985), as well as because of poor test-retest reliability and item-total correlation (Paterson & O'Driscoll, 1990). The following item was dropped from the Spouse Support Scale as a result of insufficient loading for both men and women: "To what extent does your spouse encourage you to obtain outside help (eg. childcare, cleaning service)?" Finally, an item that was added to the scale measuring work-role expectations was dropped because it loaded poorly on the first factor for both men and women. This item is "My coworkers and superiors expect that any person doing a job such as mine should take advantage of any company policy regarding maternity/paternity leave".

Descriptive Statistics

Internal consistency estimates remained virtually the same as a result of the above item deletions. Revised internal consistency estimates are presented in Table 1 along with other descriptive statistics.

Table 1

Means, Standard Deviations, and Reliability Estimates

Variable	M	SD	α
1. HWIF	20.03	6.85	.89
2. WWIF	18.31	7.09	.90
3. HFIW	11.36	2.58	.75
4. WFIW	10.70	3.13	.85
5. HLS	54.30	8.06	.87
6. WLS	55.34	8.52	.89
7. HJS	16.28	3.98	.81
8. WJS	16.94	3.51	.75
9. HJI	26.32	8.66	.88
10. WJI	22.12	7.23	.85
11. HWK#	5.65	.92	-
12. WWK#	4.47	1.28	-
13. HWRE	23.31	10.21	.91
14. WWRE	18.37	10.30	.91
15. HFI	36.42	4.73	.78
16. WFI	35.82	4.73	.75
17. HFAM#	4.67	1.39	-
18. WFAM#	5.79	1.53	-
19. HSS	28.49	4.71	.88
20. WSS	25.92	5.36	.87

Note. The H or W in front of each variable indicates whether the respondents consisted of the husbands (H) or the wives (W). JS = job satisfaction. LS = life satisfaction. JI = job involvement. WK# = the number of hours spent on job-related duties. WRE = work-role expectations. FI = family involvement. FAM# = the number of hours spent on housework or child care. SS = perceived spousal support.

* $p \leq .05$ ** $p \leq .01$

The zero-order intercorrelations are presented in Table 2. The primary hypothesis was that, although there would be a significant positive association between WIF and FIW for both partners, WIF and FIW would not be redundant variables. Instead, they would act as distinct constructs. Results confirmed this hypothesis: the correlation between WIF and FIW was .41 for husbands and .46 for wives ($p < .01$), and unique associations with the study variables were observed.

Table 2

Zero-Order Correlations

Variable	1	2	3	4	5	6	7	8
1. HWIF	-							
2. WWIF	.11	-						
3. HFIW	.41**	.06	-					
4. WFIW	.10	.46**	.09	-				
5. HLS	-.39**	-.23*	-.12	-.08	-			
6. WLS	-.24*	-.38**	-.04	-.24*	.40**	-		
7. HJS	-.26*	-.26*	-.31**	-.11	.24*	.00	-	
8. WJS	-.11	-.46**	-.04	-.35**	.12	.37**	.13	-
9. HJI	.37**	-.11	.07	.00	.08	-.18	.41**	.11
10. WJI	.06	.33**	-.16	.21	-.16	-.13	-.16	.06
11. HWK#	.36**	.06	.20	.17	.01	-.10	.12	-.05
12. WWK#	-.27*	.43**	-.18	.04	-.06	-.04	-.08	-.13
13. HWRE	.39**	.19	.31**	.19	-.07	-.08	-.12	-.12
14. WWRE	-.10	.31**	.10	.24*	.01	.06	-.21	-.23*
15. HFI	-.16	.02	-.11	.05	.34**	.14	-.02	-.07
16. WFI	-.12	-.08	-.10	-.04	.19	.43**	-.15	.00
17. HFAM#	-.37**	.00	-.05	-.02	.04	.07	-.09	.04
18. WFAM#	.08	.02	-.19	.11	-.06	-.03	-.10	-.02
19. HSS	-.08	.02	-.06	-.15	.25*	.10	.02	.14
20. WSS	-.19	-.30**	-.16	-.14	.21*	.40**	.03	.19

Note. The H or W in front of each variable indicates whether the respondents were the husbands (H) or the wives (W). JS = job satisfaction. LS = life satisfaction. JI = job involvement. WK# = the number of hours spent on job-related duties. WRE = work-role expectations. FI = family involvement. FAM# = the number of hours spent on housework or child care. SS = perceived spousal support.

* $p \leq .05$ ** $p \leq .01$

Table 2 Continued:

Zero-Order Correlations

Variable	9	10	11	12	13	14	15	16
1. HWIF								
2. WWIF								
3. HFIW								
4. WFIW								
5. HLS								
6. WLS								
7. HJS								
8. WJS								
9. HJI	-							
10. WJI	.06	-						
11. HWK#	.47**	.03	-					
12. WWK#	-.21*	.33**	-.19	-				
13. HWRE	.31**	-.18	.24*	-.12	-			
14. WWRE	-.20	.19	-.04	.38**	-.06	-		
15. HFI	-.18	-.09	-.09	.03	-.19	.24*	-	
16. WFI	-.28**	-.04	-.16	.16	-.11	.19	.47**	-
17. HFAM#	-.27*	.22*	-.25*	.25*	-.20	.15	.08	.07
18. WFAM#	.02	.24*	.18	-.08	-.13	.14	.11	.07
19. HSS	-.18	-.17	.00	.08	-.08	.06	.43**	.30**
20. WSS	.24*	-.12	-.22*	.10	-.39**	.05	.47**	.60**

Note. The H or W in front of each variable indicates whether the respondents were the husbands (H) or the wives (W). JS = job satisfaction. LS = life satisfaction. JI = job involvement. WK# = the number of hours spent on job-related duties. WRE = work-role expectations. FI = family involvement. FAM# = the number of hours spent on housework or child care. SS = perceived spousal support.

*ps.05 **ps.01

Table 2 Continued:

Zero-Order Correlations

Variable	17	18	19	20
1. HWIF				
2. WWIF				
3. HFIW				
4. WFIW				
5. HLS				
6. WLS				
7. HJS				
8. WJS				
9. HJI				
10. WJI				
11. HWK				
12. WWK#				
13. HWRE				
14. WWRE				
15. HFI				
16. WFI				
17. HFAM#	-			
18. WFAM#	-.04	-		
19. HSS	-.12	.16	-	
20. WSS	.12	.05	.25*	-

Note. The H or W in front of each variable indicates whether the respondents consisted of the husbands (H) or the wives (W). JS = job satisfaction. LS = life satisfaction. JI = job involvement. WK# = the number of hours spent on job-related duties. WRE = work-role expectations. FI = family involvement. FAM# = the number of hours spent on housework or child care. SS = perceived spousal support.

* $p < .05$ ** $p < .01$

Paired t-tests were conducted to compare the responses of husbands and wives on every study variable. There were no significant differences in responses outside of the following exceptions. Husbands reported being employed more hours per week than did their wives ($t(86) = 6.36$, $p < .001$). However, this difference was balanced by the finding that wives spent more time on housework and child care per week than did their husbands ($t(80) = -4.72$, $p < .001$). Finally, wives reported receiving less support from their husbands than did their husbands ($t(87) = 17.77$, $p < .001$).

Paired t-tests were also conducted to compare the degree of WIF and FIW reported by the respondents. For both husbands and wives, WIF was reported to occur significantly more often than FIW ($t(87) = 13.03$, $p < .001$ for husbands; $t(87) = 11.35$, $p < .001$ for wives).

Structural Equation Modelling

The following two sections outline the results from tests of the hypothesized models of WIF and FIW. The final section summarizes the results of the exploratory models. The overall goodness of fit for each model is presented followed by a discussion of specific hypotheses and other significant associations.

The Model of WIF for Husbands and Wives

Table 3 outlines the goodness-of-fit information for the model of WIF for husbands. The proposed model of WIF for husbands achieved a good fit to the data ($\chi^2(8, N = 88) = 5.53, p > .05$). Correcting for nonsignificant relationships in the model, which will be discussed later, did not significantly reduce the fit to the data ($\Delta\chi^2(4, N = 88) = 7.83, p > .05$). There was a nonsignificant relationship that resulted in a significant change in the goodness-of-fit when the pathway was fixed: the path from life satisfaction to job satisfaction. Hence, this path remained in the final model. The model accounted for 18% of the variance in WIF, 7% in life satisfaction, and 18% in job satisfaction.

Table 3

Fit Indices for Nested Models of WIF for Husbands

Type of Index	Stand-alone indices							Comparative indices				
Model	χ^2	df	GFI	AGFI	χ^2/df	NNFI	CFI	IFI	$\Delta\chi^2$	Δ NNFI	Δ CFI	Δ IFI
Null Model	112.74	21	.74	.65	5.37	-	-	-	-	-	-	-
Proposed Model	5.35	8	.98	.94	.69	1.07	1.03	1.02	107.21**	-	-	-
Simplified model (all nonsignificant relations are removed)	13.36	12	.96	.90	1.11	.97	.98	.99	7.83	.10	.04	.04

Note. Dashes indicate that the statistic cannot be computed for null models; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; NNFI = non-normed fit index; CFI = comparative fit index; IFI = incremental fit index

* $p < .05$. ** $p < .01$.

Information regarding goodness-of-fit indices for the model of WIF for wives is available in Table 4. The proposed model of WIF did not adequately fit the data for wives ($\chi^2(10, N = 88) = 23.46, p < .01$). However, freeing the relationship between wives' work-role expectations and their number of work hours achieved an adequate fit to the data ($\Delta\chi^2(1, N = 88) = 12.43, p < .01$). An adequate fit to the data was maintained even after eliminating the nonsignificant correlations in the model ($\Delta\chi^2(6, N = 88) = 9.47, p > .05$), as discussed later. This model accounted for 21% of the variance in WIF, 10% in life satisfaction, and 21% in job satisfaction, as indicated by the squared multiple correlations in the LISREL output.

Table 4

Fit Indices for Nested Models of WIF for Wives

Type of Index	Stand-alone indices								Comparative indices			
	χ^2	df	GFI	AGFI	χ^2/df	NNFI	CFI	IFI	$\Delta\chi^2$	Δ NNFI	Δ CFI	Δ IFI
Null model	90.96	21	.76	.69	4.33	-	-	-	-	-	-	-
Proposed model	23.46**	10	.93	.79	2.35	.60	.81	.83	67.5**	-	-	-
WWRE ^a → WWK# ^b freed	11.03	9	.96	.89	1.23	.93	.97	.98	12.43**	.34	.16	.14
Simplified model (all nonsignificant relations are removed)	20.50	15	.94	.89	1.37	.89	.92	.93	9.47	.04	.05	.05

Note. Dashes indicate statistics that cannot be computed for null model; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; NNFI = non-normed fit index; CFI = comparative fit index; IFI = incremental fit index
^aWWRE = wives' work-role expectations. ^bWWK# = wives' number of work hours.
 * $p < .05$. ** $p < .01$.

The obtained models of WIF are presented in Figures 3 and 4 for husbands and wives, respectively. Four antecedents of WIF were proposed for both husbands and wives: job involvement, the number of work hours, spouse's work hours, and work-role expectations. Job involvement ($B = .314$, $Z = 3.06$, $p < .01$) and work-role expectations ($B = .204$, $Z = 1.99$, $p < .05$) were significantly associated with WIF for husbands. In contrast, the number of work hours was the only significant antecedent of WIF for wives ($B = .456$, $Z = 4.76$, $p < .001$). The number of work hours for one's spouse was expected to be associated with WIF for a respondent. This hypothesis was not supported for either husbands or wives.

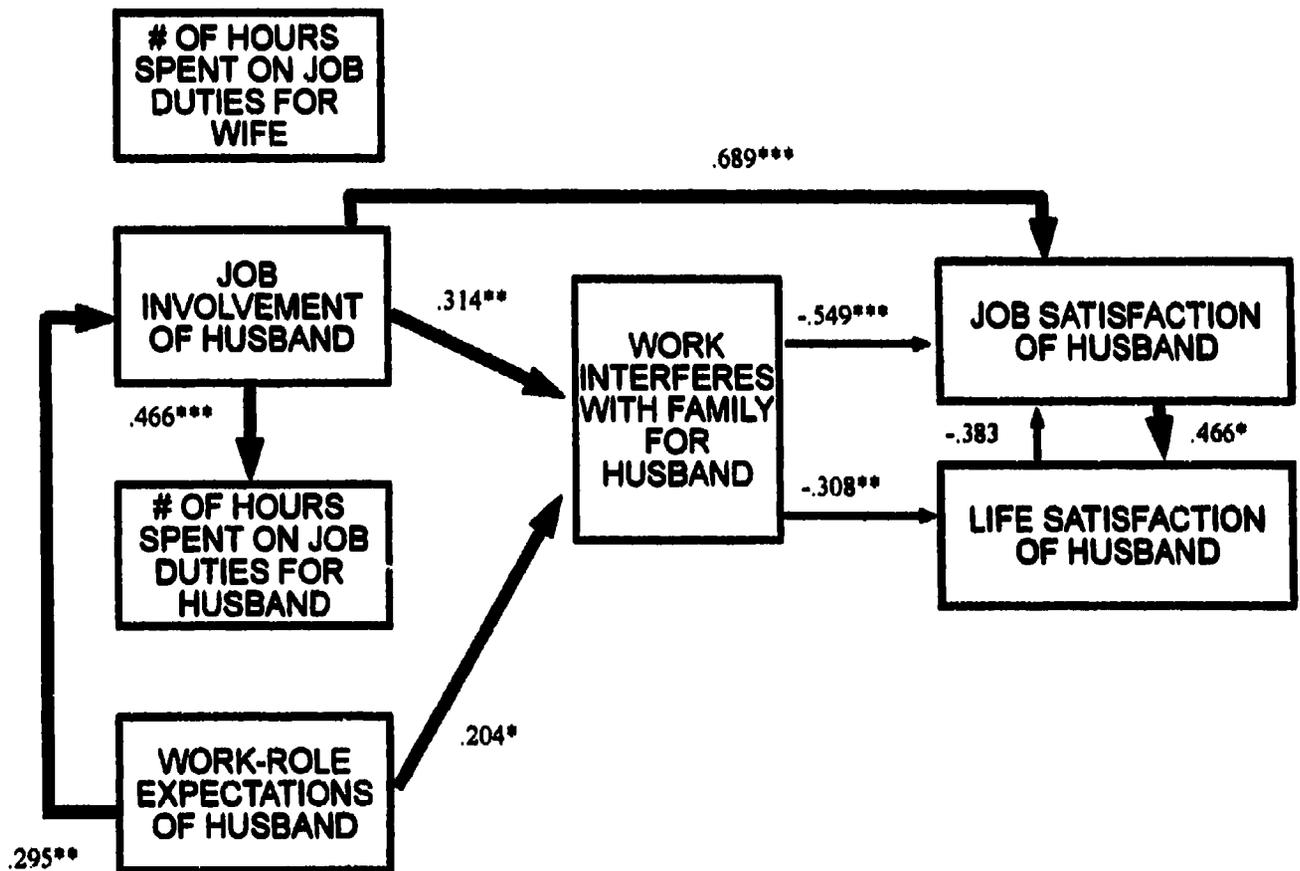


Figure 3. Model of Work Interfering with Family (WIF) for Husbands. Positive correlations are signified by the thick arrows and negative correlations are signified by the thinner arrows.

* $p < .05$ ** $p < .01$ *** $p < .001$

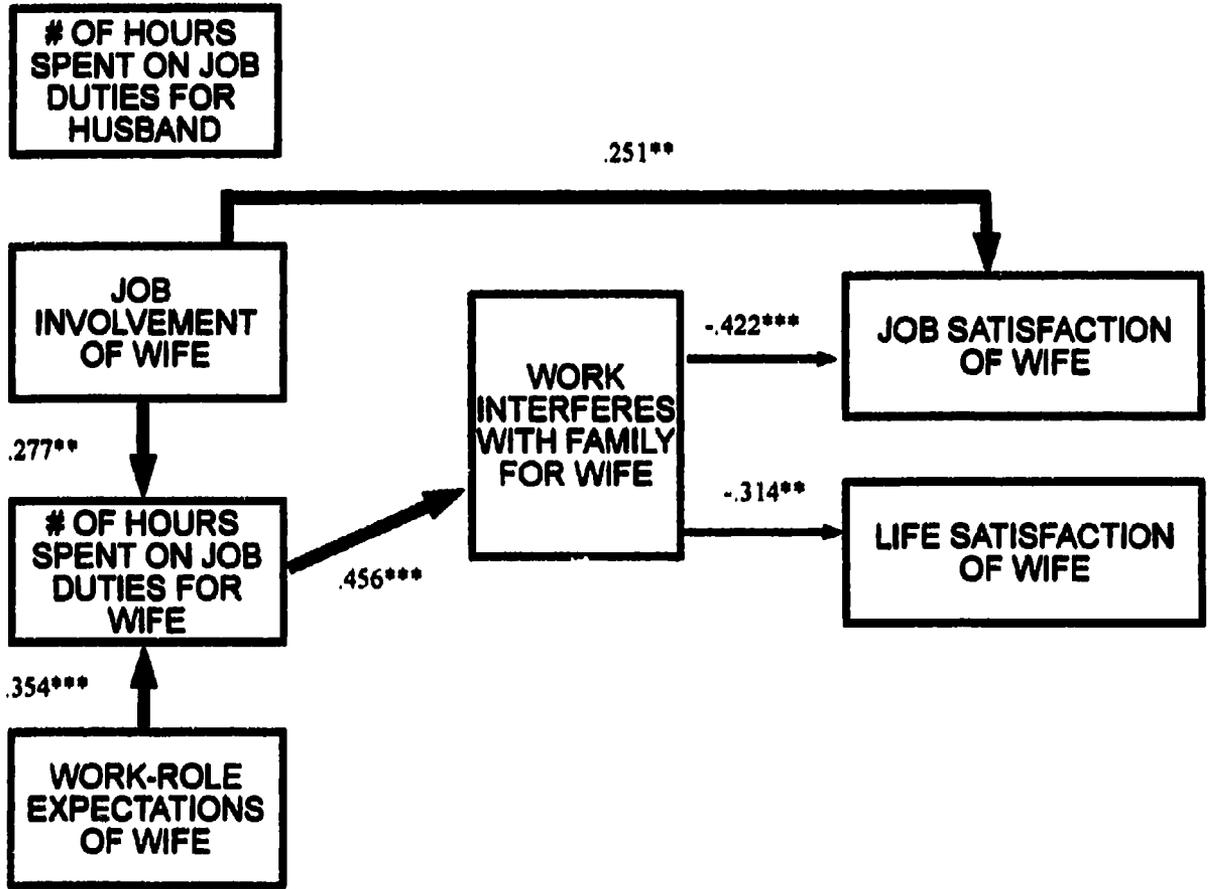


Figure 4. Model of Work Interfering with Family (WIF) for Wives. Thick arrows indicate positive correlations, whereas thinner arrows signify negative correlations.

* $p < .05$ ** $p < .01$ *** $p < .001$

In addition, significant associations were hypothesized between the proposed antecedents. First, higher job involvement was expected to be associated with a greater number of work hours for both partners. This hypothesis was fully supported for both husbands ($B = .466$, $Z = 4.89$, $p < .001$) and wives ($B = .277$, $Z = 2.88$, $p < .01$). Second, work-role expectations was expected to be significantly associated with greater job involvement for both husbands and wives. This hypothesis was supported only for husbands ($B = .295$, $Z = 2.87$, $p < .01$). Third, it was hypothesized that work-role expectations would be associated with an increase in the number of work hours for husbands only. In fact, this relationship was only significant for wives ($B = .354$, $Z = 3.67$, $p < .001$). Finally, the expected relationship between increased job involvement for husbands and decreased work hours for their wives was not significant.

The proposed outcomes of WIF for both husbands and wives were reduced life and job satisfaction. For husbands, WIF was directly related to both life satisfaction ($B = -.308$, $Z = -2.87$, $p < .01$) and job satisfaction ($B = -.549$, $Z = -3.81$, $p < .001$). For wives, WIF was also directly related to life satisfaction ($B = -.314$, $Z = -3.06$, $p < .01$) and to job satisfaction ($B = -.422$, $Z = -4.38$,

$p < .001$). A bidirectional positive association was also proposed for both husbands and wives. This was partly supported for husbands only. The path from job satisfaction to life satisfaction was positive ($B = .466$, $Z = 2.44$, $p < .05$), whereas the path from life satisfaction to job satisfaction was negative ($B = -.383$, $Z = -1.86$, $p > .05$).

Finally, a significant association between job involvement and job satisfaction was expected for both partners. This hypothesis was fully supported for husbands ($B = .689$, $Z = 5.79$, $p < .001$) and for wives ($B = .251$, $Z = 2.61$, $p < .01$).

The Model of FIW for Husbands and Wives

Overall, the hypothesized model of FIW was not supported for either husbands or wives. Although significant relationships were found between husbands' FIW and other variables in the model, husbands' model of FIW only accounted for 6% of the variance in FIW, 5% in job satisfaction, and 9% in life satisfaction. For wives, there were no significant antecedents or outcomes of FIW. Consequently, when the model was simplified by eliminating nonsignificant correlations, the model accounted for 0% of the variance in FIW, 0% in job satisfaction, and 26% in life satisfaction. The obtained models are presented in Figure 5 for husbands and Figure 6 for wives.

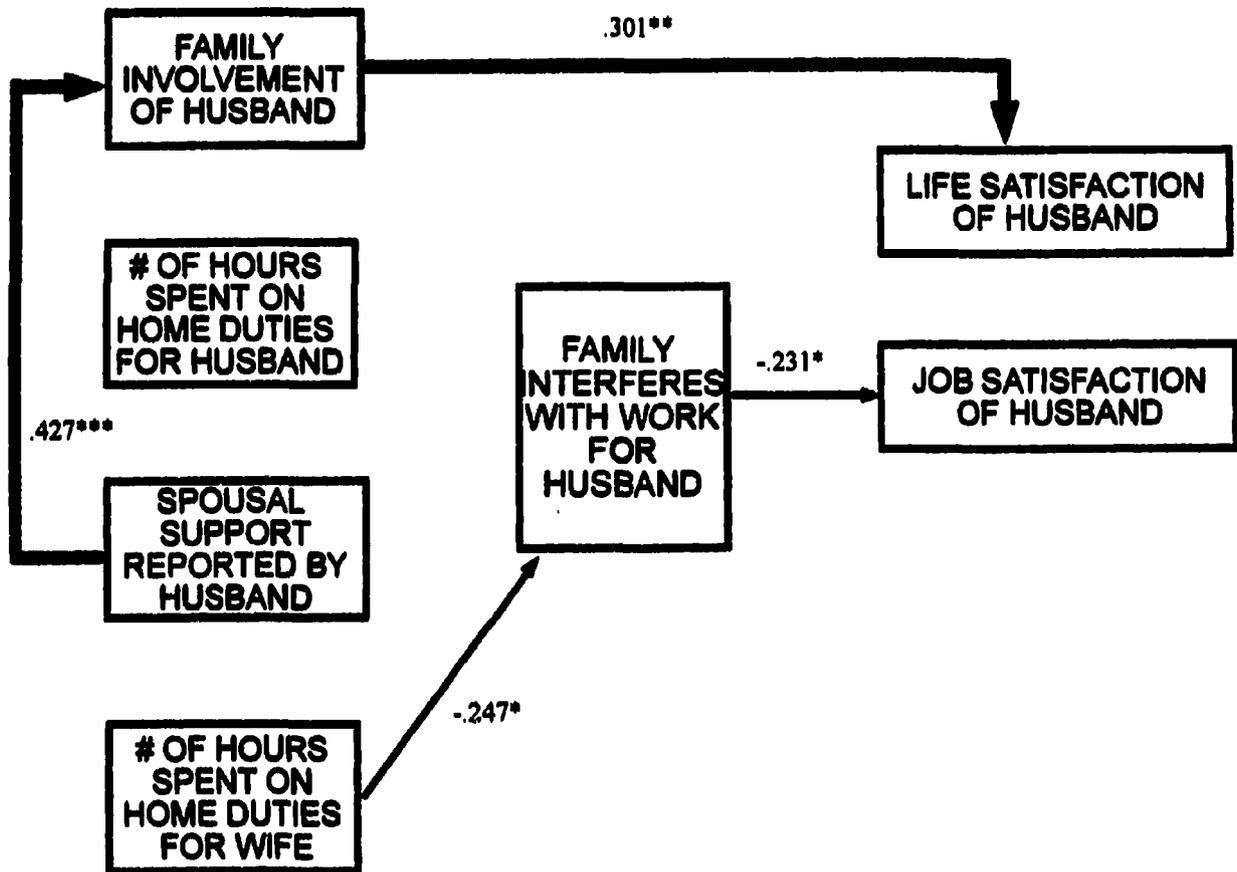


Figure 5. Model of Family Interfering with Work (FIW) for Husbands. Positive correlations are signified by the thick arrows and negative correlations are signified by the thinner arrows.

* p<.05 ** p<.01 *** p<.001

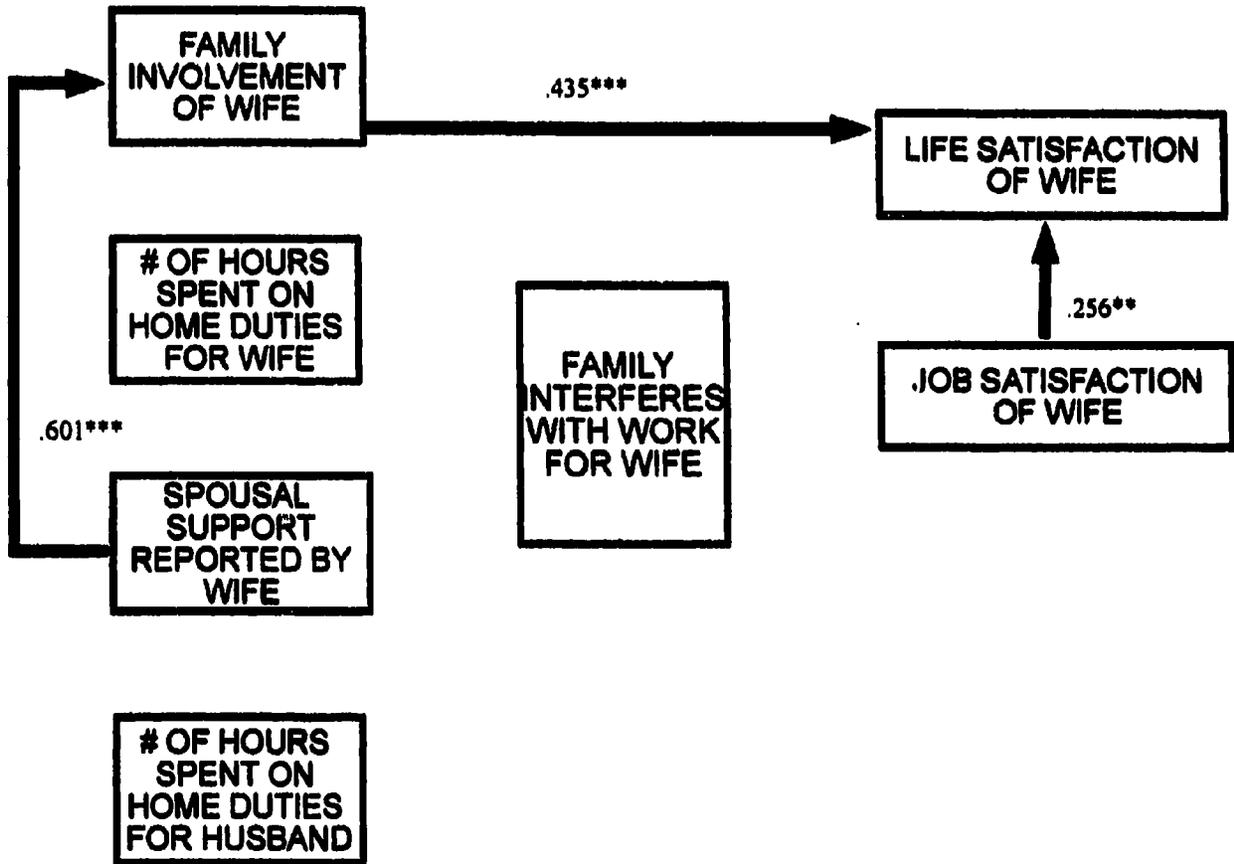


Figure 6. Model of Family Interfering with Work (FIW) for Wives. Thick arrows indicate positive correlations, whereas thinner arrows signify negative correlations.

* $p < .05$ ** $p < .01$ *** $p < .001$

Four antecedents of FIW were hypothesized: family involvement, perceived spousal support and time spent on family duties by spouse for both partners, and the number of hours spent on home duties for wives. None of these proposed relationships were supported. The number of hours spent on family duties by one's spouse was expected to be associated with a decrease in FIW for the respondent; this hypothesis was supported for husbands ($B = -.247$, $Z = -2.35$, $p < .05$), but not for wives.

Significant associations were expected between some of these proposed antecedents. Family involvement was hypothesized as being associated with increased time spent on family duties for both partners; this hypothesis was not supported. Also, increased spousal support was expected to be associated with increased family involvement for both partners; this hypothesis was supported for husbands ($B = .427$, $Z = 4.36$, $p < .001$) and wives ($B = .601$, $Z = 6.93$, $p < .001$).

Reduced job satisfaction was a proposed outcome of FIW for both husbands and wives; this was supported only for husbands ($B = -.231$, $Z = -2.19$, $p < .05$). Reduced life satisfaction was also proposed as an outcome of FIW; this hypothesis was not supported. It was expected that family involvement and spousal support would be associated with

increased life satisfaction; in fact, only family involvement had a direct relationship with life satisfaction for husbands ($B = .301$, $Z = 2.91$, $p < .01$) and wives ($B = .435$, $Z = 4.65$, $p < .001$).

Exploratory Model Analysis

The obtained correlates of FIW were combined with the corrected and simplified model of WIF to test an exploratory model of interrole conflict for husbands and for wives. A bidirectional relationship between WIF and FIW was proposed. In addition, any variables that were unexpectedly correlated with either WIF or FIW ($p < .01$), but made theoretical sense, were added to these models. The only meaningful variables that were added to the exploratory models were those that were significantly associated with WIF.

Significant associations were found between husbands' WIF and their time spent on family duties ($r = -.37$, $p \leq .01$), and between wives' WIF and their perceived spousal support ($r = -.30$, $p \leq .01$). Both variables were entered into the exploratory models of both partners; time spent on family duties was tested as an outcome of WIF for husbands and spousal support was tested as an outcome of WIF for wives.

The exploratory model fit the data for husbands ($\chi^2(29, N = 88) = 39.69$, $p = .089$). The fit was

significantly improved when the path from husbands' job involvement to life satisfaction was freed ($\Delta\chi^2(1, N = 88) = 5.98, p < .05$). The simplified model, with nonsignificant paths eliminated, did not significantly reduce the fit to the data ($\chi^2(3, N = 88) = 2.42, p > .05$). Other goodness-of-fit indices are presented in Table 5. The model accounted for 22% of the variance in WIF, 24% in FIW, 29% in life satisfaction, and 37% in job satisfaction. In terms of variance accounted for, the exploratory model was superior to the hypothesized models for husbands; the hypothesized models accounted for 18% of the variance in WIF and 6% in FIW.

Table 5

Fit Indices for Nested Exploratory Models of Interrole Conflict for Husbands

Type of Index	Stand-alone indices								Comparative indices			
	χ^2	df	GFI	AGFI	χ^2/df	NNFI	CFI	IFI	$\Delta\chi^2$	Δ NNFI	Δ CFI	Δ IFI
Null Model	192.54	44	.69	.61	4.38	-	-	-	-	-	-	-
Original Model	39.69	29	.92	.85	1.37	.89	.93	.94	152.85**	-	-	-
HJI ^a → HLS ^b freed	33.71	28	.93	.86	1.20	.94	.96	.96	5.98*	.05	.03	.03
Simplified model (all nonsignificant relations are removed)	36.13	31	.93	.87	1.16	.95	.97	.97	2.42	.01	.00	.00

Note. Dashes indicates statistics that cannot be computed for the null model; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; NNFI = non-normed fit index; CFI = comparative fit index; IFI = incremental fit index
^aHJI = husbands' job involvement. ^bHLS = husbands' life satisfaction.
 * $p < .05$. ** $p < .01$.

The exploratory model did not fit the data for wives ($\chi^2(34, N = 88) = 57.87, p < .01$). However, the modification indices indicated that the model could be greatly improved. When the paths were freed from FIW to wives' work hours, from wives' life satisfaction to their job satisfaction, and from wives' work hours to their perceived spousal support, a fit to the data was achieved ($\Delta\chi^2(3, N = 88) = 20.63, p < .01$). After eliminating any nonsignificant paths, the model's fit to the data was not significantly altered ($\chi^2(1, N = 88) = 1.25, p > .05$). The goodness-of-fit indices are outlined in Table 6. The obtained model accounted for 14% of variance in WIF, 17% in FIW, 24% in life satisfaction, and 33% in job satisfaction. This is in contrast to the original models which accounted for 21% of the variance in WIF and 0% in FIW.

Table 6

Fit Indices for Nested Exploratory Models of Interrole Conflict for Wives

Type of Index	Stand-alone indices								Comparative indices			
Model	χ^2	df	GFI	AGFI	χ^2/df	NNFI	CFI	IFI	$\Delta\chi^2$	Δ NNFI	Δ CFI	Δ IFI
Null Model	177.56	44	.69	.61	4.04	-	-	-	-	-	-	-
Original model	57.87**	34	.88	.81	1.70	.77	.82	.83	119.96**	-	-	-
WFIW \rightarrow WWK# ³ freed	49.09*	33	.90	.84	1.49	.84	.88	.89	8.78**	.07	.06	.06
WLS ² \rightarrow WJS ² freed	43.51	32	.91	.85	1.36	.88	.91	.92	5.58*	.04	.03	.03
WWK# \rightarrow WSS ¹ freed	37.24	31	.93	.87	1.20	.93	.95	.96	6.27*	.05	.04	.04
Simplified model (all nonsignificant relations are removed)	38.49	32	.92	.87	1.20	.93	.95	.96	1.25	.00	.00	.00

Note. Dashes indicate statistics that could not be computed for the null model; GFI = goodness of fit index; AGFI = adjusted goodness of fit index; NNFI = non-normed fit index; CFI = comparative fit index; IFI = incremental fit index

³WWK# = wives' number of work hours. ²WLS = wives' life satisfaction. ²WJS = wives' job satisfaction. ¹WSS = wives' perceived spousal support.

* $p < .05$. ** $p < .01$.

The corrected and simplified models are presented in Figures 7 and 8 for husbands and wives, respectively. The significant paths obtained in the corrected and simplified models of WIF did not change in the exploratory models with the following exceptions. For husbands, the only association observed in the original model of WIF that failed to be significant in the exploratory model was the bidirectional relationship between job and life satisfaction. In addition, husbands' job involvement was associated with increased life satisfaction in the exploratory model ($B = .308$, $Z = 3.13$, $p < .01$) while it was nonsignificant in the obtained model of WIF. In contrast, the exploratory model of wives included a significant path from life to job satisfaction ($B = .227$, $Z = 2.37$, $p < .05$) which was formerly nonsignificant in the original model of WIF.

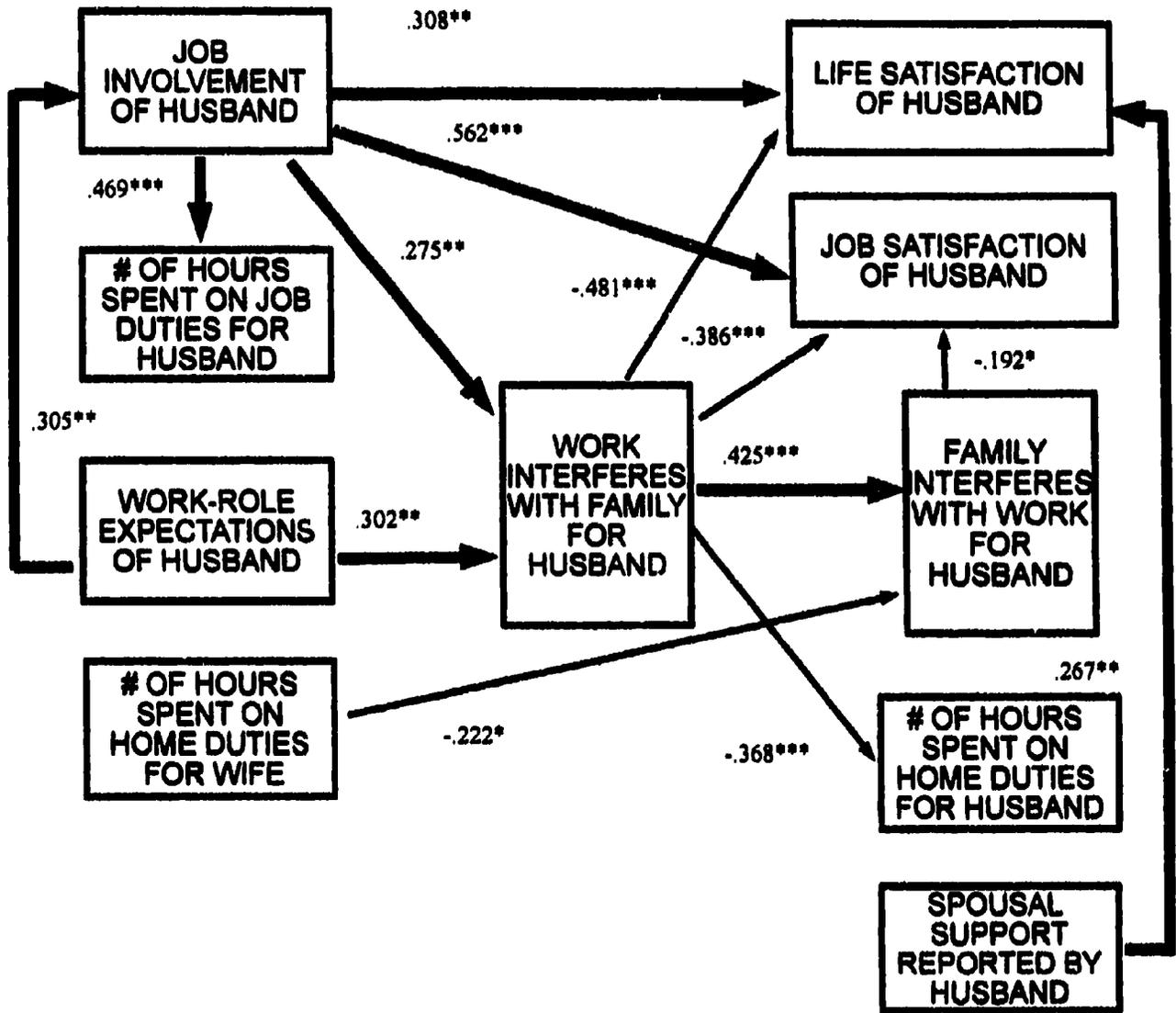


Figure 7. Exploratory Model of Interrole Conflict for Husbands. Thick arrows indicate positive correlations and thinner arrows indicate negative correlations.

* p<.05 ** p<.01 *** p<.001

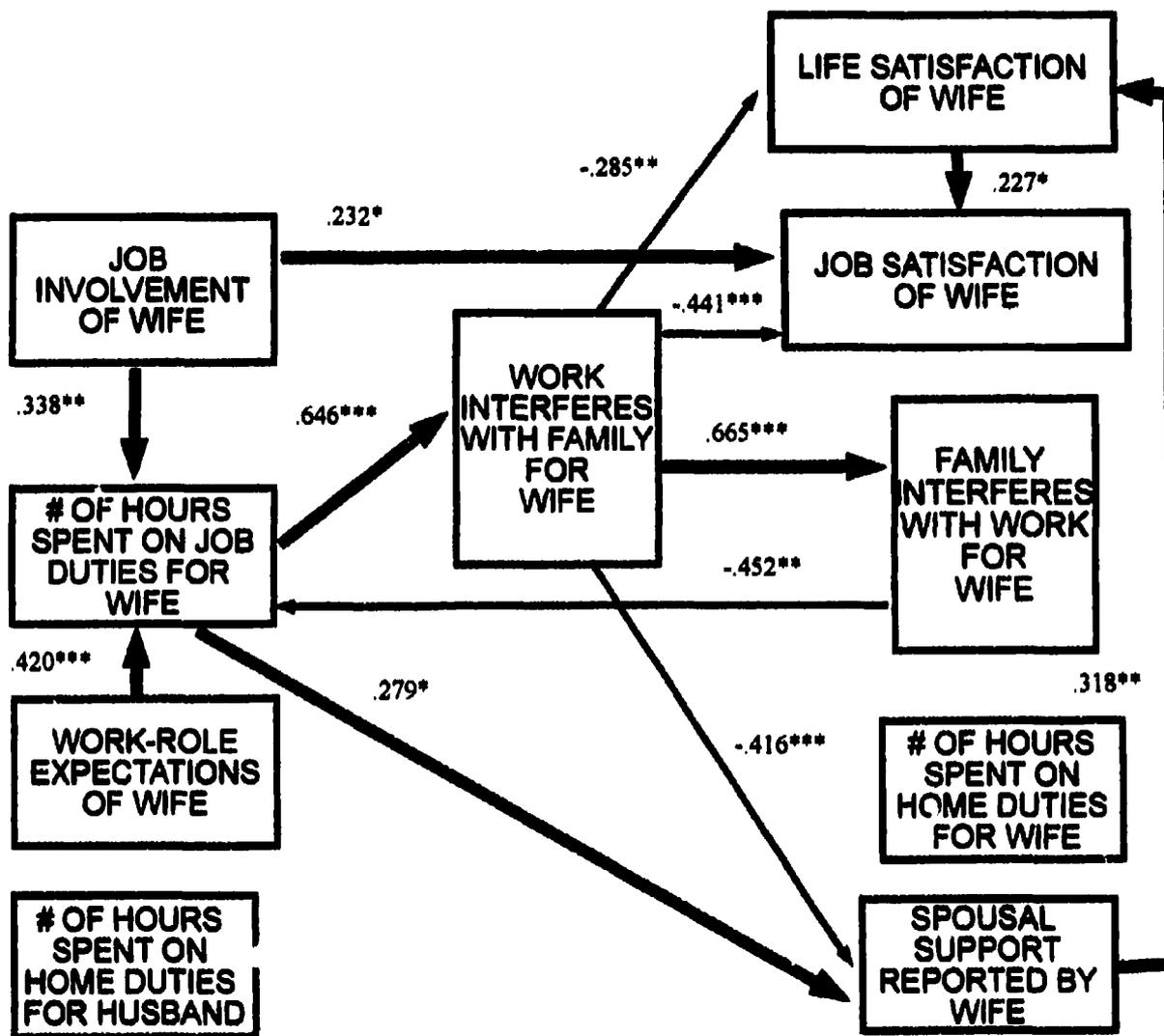


Figure 8. Exploratory Model of Interrole Conflict for Wives. Thick arrows indicate positive correlations whereas thinner arrows mark negative correlations.

* p<.05 ** p<.01 *** p<.001

The obtained correlates of FIW, time spent on home duties for wives and job satisfaction, remained significant in the exploratory model. In addition, the exploratory models produced some new relationships. For husbands, WIF was significantly associated with increased FIW ($B = .425$, $Z = 4.49$, $p < .001$) and decreased time spent on family duties ($B = -.368$, $Z = -3.65$, $p < .001$).

For wives, WIF was significantly associated with increased FIW ($B = .665$, $Z = 4.75$, $p < .001$) and decreased spousal support ($B = -.416$, $Z = -3.76$, $p < .001$). FIW was significantly associated with the number of work hours for wives ($B = -.452$, $Z = -2.73$, $p < .01$), and, in turn, wives' work hours were significantly associated with their perceived spousal support ($B = .279$, $Z = 2.53$, $p < .05$).

Discussion

The primary goal of this study was to investigate interrole conflict. First, interrole conflict was operationalized so that it consisted of WIF and FIW. The obtained correlation between these two variables indicated that, although WIF and FIW are highly associated, they are also distinct variables which operate independent of each other. This supports research that operationalizes interrole conflict in the same way (Frone et al., 1991; Gutek et al., 1991; O'Driscoll et al., 1992; Thompson & Blau, 1993; Wiley, 1987). Findings directly related to WIF and FIW will be discussed first, followed by a discussion of additional important relationships between other study variables. Caveats of the present study and future directions in research will then be outlined. Finally, we will conclude with an overview, highlighting the most important findings.

Work Interfering with Family (WIF)

The results suggest that work-role expectations and job involvement are important determinants of WIF for both husbands and wives; this agrees with past findings (Crouter et al., 1992; Duxbury & Higgins, 1991; Thompson & Blau,

1993; Wiley, 1987). For wives, these variables were indirectly related to increased WIF through work hours, whereas they were directly related to WIF for husbands. The number of hours spent working seems to be an important determinant of WIF for wives, but not for husbands. This result is inconsistent with past research that found a significant association between WIF and work hours for husbands in dual-earner couples (Galambos & Walters, 1990; Izraeli, 1993; Parasuraman et al., 1989). A possible explanation for this inconsistency is that these studies did not measure job involvement, which was associated with both WIF and work hours in the present study. For husbands, job involvement may be a more powerful antecedent of WIF than is work hours; hence, it overshadows the otherwise significant univariate correlation between work hours and WIF in a multivariate analysis.

Why was temporal involvement in work not significantly associated with WIF for husbands in the tested model? It may reflect the influence of controllability in determining WIF. It was proposed that the degree to which controllability is involved when WIF occurs depends on the type of antecedent. Control may increase as one moves from work hours to work-role expectations to job involvement. Viewing this observed gender difference in light of this

theory, control may be an integral component when husbands report WIF. For wives, work hours was the only variable directly related to WIF, and this variable is proposed as involving the least amount of control for individuals. Therefore, the occurrence of WIF may involve less control on the part of wives than it does for their husbands. It is clear that research is needed to understand the part controllability plays in interrole conflict.

Reduced life satisfaction was identified as a potential consequence of WIF for both partners, as found in past research (Aryee, 1992; Bedeian et al., 1988; Bacharach et al., 1991; Duxbury & Higgins, 1992; Kopelman et al., 1983; Wiley, 1987). Also, job dissatisfaction was identified as another potential outcome of WIF for both husbands and wives. Although the significant association between WIF and reduced job satisfaction is incompatible with some past findings (Bacharach et al., 1991; Bedeian et al., 1988; Kopelman et al., 1983; O'Driscoll et al., 1992; Thompson & Blau, 1993; Wiley, 1987), it is consistent with the research that used individuals from dual-earner couples as their sample (Aryee, 1992; Duxbury & Higgins, 1991; Parasuraman et al., 1992; Thiede & Ganster, 1995; see Izraeli, 1993 as an exception). There was also an indirect influence of WIF on job satisfaction for wives via life satisfaction, as found

in the exploratory model. These results strongly suggest that WIF is not only an issue for one's nonwork life, it is an issue that should also be a concern of employers. The association between WIF and reduced job satisfaction suggests that employers should be investigating ways to avoid WIF from occurring in their employees' lives. This is especially pertinent since reduced job satisfaction has been associated with increased absences from work and increased turnover (Barber, 1986; Brooke & Price, 1989; Hackett, 1989; Shore, Newton & Thornton, 1990).

The exploratory models uncovered other possible outcomes of WIF. For husbands, WIF may reduce hours spent on family duties. This can be expected if WIF means less time and energy to engage in housework or child care. However, this relationship was nonsignificant for women. In other words, women are doing the same amount of housework and child care despite how much work may be interfering with family life.

WIF was also associated with decreased perceived spousal support for wives, but not for husbands. Husbands may be responding to their wives' WIF by decreasing their spousal support. Alternatively, women may perceive less support from their husbands as a result of their personal struggle with work interfering with their family life. By

relying on self-report, it is difficult to determine an actual difference in support versus a perceived difference. More will be said of this association later.

Overall, the results suggest that WIF may be exacerbated by emotional job involvement for both men and women in dual-earner couples. In addition, work-role expectations dictating that work should take priority over family seem to further intensify this conflict. The number of work hours seems to be an important determinant of WIF for wives. WIF may have important implications for job satisfaction that should be of particular interest to any employer. Finally, WIF seems to have important implications for family life in terms of its association with the following variables: reduced perceived spousal support for wives, reduced hours spent on family duties for husbands, and reduced life satisfaction for both partners.

Family Interfering with Work (FIW)

The proposed model of FIW was largely unsuccessful. Potential antecedents of FIW were not identified, in contrast to some findings (Baruch & Barnett, 1986; Burley, 1991; Frone et al., 1992a; Gutek et al., 1991). There is not a clear reason for these inconsistent results. For the present study, many families had children old enough to

assist in housework and even child care. This added assistance may have prevented family variables from contributing to FIW. Past research did not specify the number of children the respondents had nor their ages.

WIF was reported to occur significantly more in the present sample than did FIW. This result supports the previous proposition that there are asymmetrical boundaries between work and family (Pleck, 1977); this has also been supported in past research (Frone et al., 1992b; Gutek et al., 1991; Judge et al., 1994; Williams & Alliger, 1994). Perhaps this is because there are stricter sanctions against FIW than WIF in our society. That is, the penalties for allowing family to interfere with work are more concrete, such as missed deadlines, poor performance appraisals, and even dismissal. Couples may react to this sanction against FIW by making arrangements to prevent it from occurring.

Combined with the exploratory models, this investigation uncovered a few interesting associations with FIW. Firstly, time spent on family duties for wives seemed to alleviate the FIW of their husbands. However, this relationship was not significant for wives. Since women reported significantly more hours of family duties than did their husbands, this may explain why wives seem to alleviate conflict for their husbands, whereas husbands are not

providing the same relief for their wives. Husbands may simply not be doing enough child care and household tasks to reduce FIW for their wives. This finding reflects past research which found that women continue to bear the burden of child care and housework (Baruch & Barnett, 1986; Gray et al., 1990; Leslie et al., 1991). However, this discrepancy is balanced by the fact that, in the present sample, husbands reported dedicating significantly more hours to their jobs than did their wives.

In the exploratory models, WIF was significantly associated with increased FIW for both husbands and wives. WIF may prevent one from fulfilling responsibilities at home, and these neglected responsibilities may then infringe on the job. Unlike the proposed antecedents of FIW, WIF may diminish time and energy to such a degree that the performance of essential family duties necessitates interference with job duties. However, FIW was not a significant antecedent of WIF. FIW may not occur enough to make WIF more likely. This close association between WIF and FIW may have contributed to the lack of research focusing on FIW in comparison to the many investigations of WIF. The major difference between these two types of interrole conflict may lie in their unique consequences.

What are the outcomes of FIW? For husbands, FIW was associated with decreased job satisfaction. This is partly inconsistent with the literature which reports a significant association between these two variables for both men and women (Thompson & Blau, 1993; Wiley, 1987), and it is wholly inconsistent with others who found a nonsignificant relationship (O'Driscoll et al., 1992). Again, these previous studies did not use dual-earner couples as their sample.

FIW was associated with decreased time spent at work for wives. Perhaps when increased WIF is followed by increased FIW, women are responding by decreasing their temporal involvement in the labour force. Both types of interrole conflict occurring in their lives may be taken as an indicator that they are unable to manage their present level of responsibilities. Instead of turning to their husbands, or to outside help, wives may reduce their work hours. In contrast, husbands are responding to the same situation by feeling less satisfied with their job. This relationship needs to be tested in a longitudinal study. This gender difference probably reflects women's inconsistent participation in the labour force as a result of family demands, and men's continued participation in spite of family demands.

The reduction in work hours for wives associated with FIW must be considered in conjunction with the reduction in family duties for husbands associated with WIF. That is, men seem more prone to reduce their temporal involvement in family, whereas women seem more prone to reduce their temporal involvement in their job. This difference may again reflect societal expectations that family should take priority over work for women, whereas work should take priority over family for men (Pleck, 1977).

Overall, the results suggest that FIW may be closely linked to WIF in that WIF may frequently precede FIW. This may be countered by women's participation in household duties which alleviates their husbands' FIW. The occurrence of FIW seems to have implications for the work domain, in terms of decreased participation for wives and decreased satisfaction for husbands.

Other Important Associations

There were other significant relationships found between the models' variables. An important variable for husbands was their job involvement. Job involvement was associated with increased job and life satisfaction, both directly and through the mediating variable of WIF. In addition, husbands' job involvement was associated with

their increased work hours. Although this variable seems to be an important determinant of work variables for both partners (Brooke et al., 1988; Elloy et al., 1991; Karambayya & Reilly, 1992; Paterson & O'Driscoll, 1990; Wiley, 1987), its association with life satisfaction suggests that it may also be a determinant of nonwork variables for husbands.

Perceived spousal support seemed to be an important variable for wives. The number of work hours of wives was associated with increased perceived spousal support. Perhaps husbands are better able to relate to the responsibilities involved in a job, as opposed to those involving child care and housework. This may translate into more effective support for their wives. However, the results also suggest that there is a condition to this increased support from their husbands. The association between WIF and reduced spousal support suggests that husbands may be reducing their support in response to their wives' interrole conflict. Reduced spousal support suggests that wives' WIF may be viewed as negative to men, and that "husbands' acceptance of their wives' work ... is conditional on their wives' continuing to meet their traditional family responsibilities" (Pleck, 1981, p. 106). The importance of this support is clear given that spousal

support is associated with increased life satisfaction. Since life satisfaction and job satisfaction were also positively associated, reduced perceived spousal support may reduce wives' overall life satisfaction, and it may also indirectly contribute to reduced job satisfaction.

The relationship between job and life satisfaction was inconsistent in the present study. The exploratory model contradicted the obtained models of WIF and FIW, which also differed. For husbands, a bidirectional relationship between job and life satisfaction was found when testing the model of WIF but was nonsignificant in both the exploratory model and the model of FIW. In the model of WIF for husbands, the path from job satisfaction to life satisfaction was positive, whereas the path from life to job satisfaction was negative. This suggests that there may be positive spillover from work to nonwork life, or at least that husbands strongly consider their job satisfaction when assessing their overall life satisfaction. The negative pathway from life to job satisfaction also supports the compensation theory of how work and family interact. That is, husbands may look to their work to compensate for a lack of life satisfaction, thereby resulting in increased job satisfaction. For wives, each tested model produced a different picture of how job and life satisfaction

correlate. It is unclear whether there is a significant positive relationship from job to life satisfaction, from life to job satisfaction, or a nonsignificant relationship. Nevertheless, the results do indicate that any relationship between the two variables may reflect positive spillover between work and nonwork life. It is clear that more research is needed to verify the relationship between job and life satisfaction for dual-earner couples.

The proposition that a spouse's work and family situation will act as antecedents of interrole conflict was not clearly supported. For wives, this was especially the case, since husbands' work and family hours were not significantly associated with any other variable in the models tested. It is as though the interrole conflict of wives is operating independent of their husbands. In contrast, wives' housework and childcare activities seemed to alleviate FIW for their husbands. This may reflect an expectation that wives involve themselves in their husbands' work situation by alleviating their conflict, whereas husbands can remain uninvolved in their wives' interrole conflict.

The gender differences reported between partners in dual-earner couples seem to reflect a difference in role

dominance. Although men and women did not differ in their reported WIF and FIW (also found in the literature: see Frone et al., 1992b), or in their job or family involvement, work variables may be more relevant for the work/family dynamic for men, whereas family variables may be more relevant for women. That is, family responsibilities may take priority when interrole conflict occurs for women, whereas job responsibilities may take priority when it occurs for men. Why might there be a difference in role dominance between husbands and wives? One explanation is that men receive greater rewards for their participation in work than do women. Greater rewards usually include a higher salary and higher job status. Statistics Canada (1995) reported that, on average, wives in dual-earner couples earned 59% of their husbands' salary. This disparity between work rewards may have two implications for the work-family interface of dual-earner couples. First, fewer rewards for women may make work less of a priority so that when it conflicts with family life, the solution is a reduction in work hours. This, coupled with the finding that suggests that men may support their wives less when they experience WIF, may further encourage women to make family their top priority. Second, greater rewards for men may mean that work is their top priority. The top priority

of men's jobs may explain why reduced family hours for husbands have been identified as a potential outcome of husbands' WIF.

In that vast majority of families in which the husband's wage is higher than the wife's, there is also the trade-off between men's family participation and total family income. The husband doing more in the family in theory frees the wife to put more time in paid work to earn more. But since her wage is typically significantly lower than her husband's, such a choice reduces total family income. The husband-wife wage ratio can act as a powerful structural disincentive to husbands' participation (Pleck, Lamb, & Levine, 1986, p.14).

Establishing priorities in response to conflict or stress has been identified as a common coping strategy (Gupta & Jenkins, 1986). Role dominance may then determine some of the consequences of interrole conflict. Indeed, in one study, more wives found resolutions to interrole conflict that involved accommodating their careers for their families than did their husbands (Kinnier, Katz, & Berry, 1991). The traditional role differentiation with husband as primary breadwinner and wife as primary homemaker may take hold when interrole conflict occurs for dual-earner couples. Reverting to traditional gender-roles may be a strategy of couples for coping with the stress of interrole conflict.

Caveats of the present study

There are a few limitations in the study which have implications for the results. The first, and probably most important limitation, is the small sample size. This problem, common in family research, means that the results should be generalized with caution. Minimum samples of 100 have been recommended when conducting structural equation modelling (Boomsma, 1985; Loehlin, 1987); therefore, the sample size of 88 is less than adequate. The problem with sample size was particularly evident when testing the exploratory models, since the suggested ratio of 10 subjects for every variable was violated (Nunnally, 1978). As a result, before any generalizations can be made, replication of these findings with a larger sample is strongly advised.

Second, the data was collected in the final year of a three-year longitudinal study. Although no questions regarding work were posed in the first two years of the study, the responses may have been altered by the previously administered questionnaires. As well, since the larger study required that interviewers enter the families' homes for three consecutive years, only families who would be comfortable with such inquiry volunteered as participants. Consequently, the families who participated are likely

disproportionately more healthy as compared to the overall population.

Third, the sample consisted of dual-earner couples. Dual-earner couples share unique circumstances in that the balancing act between work and family is relevant for both partners. Hence, these results are less generalizable to couples where one partner is employed outside the home and the other is a fulltime homemaker, or to single parents who are employed. Also, because any employment was the requirement for inclusion in the study, the sample consisted of part-time and full-time workers of any occupation. This criterion distinguishes the sample from dual-career couples who both work full-time in promotable occupations; hence, any generalizations to dual-career couples should be made with caution.

The fact that all of the couples in this sample had at least two children at home makes the results also less generalizable to nonparents. Being a parent necessitates time spent on childcare activities which are not as easily put aside when job demands call for their attention. Consequently, interrole conflict may be more relevant for parents than for nonparents. Finally, this sample consisted of heterosexual couples. As proposed, gender-role expectations seem to be a theoretical explanation for many

of the results; hence interrole conflict may operate in a different manner for same-sex couples.

Due to the cross-sectional nature of this study, causal links between variables are only suggested. Consequently, the proposed antecedents and consequences of WIF and FIW are speculative without a longitudinal analysis. A longitudinal analysis, combined with a bidirectional approach to interrole conflict, should determine the crucial antecedents and consequences of this conflict.

A final difficulty lies with reliance on self-report measures which prevents differentiating between perceptions about interrole conflict and actual conflict. Although it would be ideal if self-report were complemented with behavioral measures of interrole conflict, this may be unrealistic given the usual importance of privacy in family life.

Future Directions

Having both members of a couple report on their partner's interrole conflict in addition to their own may be a feasible alternative to relying exclusively on self-report. Even though this will not eliminate the influence of perceptions, it may give a more accurate picture of how a couple balances work and family. As well, Williams and

Alliger's (1994) use of alarms and diaries to measure intrusions of work onto family activities, and vice versa, is a promising approach to a behavioral measure of interrole conflict.

For pragmatic purposes, the present study used a measure of life satisfaction to gauge satisfaction with family life. Because individuals consider their satisfaction with other domains besides family when assessing their overall life satisfaction, family satisfaction would be a better measure of satisfaction with the domain of family exclusively. Family satisfaction and job satisfaction could then be compared without the overlap that occurs between job and life satisfaction. This more direct measure should shed further light on the relationship between interrole conflict, satisfaction with the interfering domain, and satisfaction with the disrupted domain.

Of additional interest would be a measure of family-role expectations. Asking respondents how much their children and partner expect them to make family a priority over work might shed light on some of the results of the present study. For instance, perceived family-role expectations reported by wives might be significantly higher than for husbands; this might explain the reduced spousal

support reported by wives when they were experiencing WIF. Certainly, a measure of this may have important implications for uncovering gender differences in interrole conflict.

In addition to measuring perceived expectations, it might also be helpful to measure actual work-role and family-role expectations regarding the prioritizing of work and family. Questioning family members and employers about their expectations of an individual may shed light on the pressures of balancing work and family. As well, investigating how family members and employers (e.g., via performance appraisals) respond to interrole conflict occurring in an individual's life may be another fruitful research pursuit.

It may also prove valuable to measure role dominance, or the prioritizing of work and family roles for an individual. With this additional measure, one could better determine if individuals are responding to their own expectations as opposed to others' expectations regarding prioritizing work and family. Knowing a respondent's self-expectations about balancing work and family may reveal how much control is involved when interrole conflict occurs in an individual's life. Also, devising measures that distinguish between interrole conflict which is unavoidable versus interrole conflict which is the result of

prioritizing work over family, for instance, would further elucidate the nature of this conflict.

Traditional role dominance occurring in response to interrole conflict must be considered in light of the sample used. If traditional prioritizing of work and family by gender occurs in families who are relatively well-educated and who hold largely middle to upper-class occupations, it is safe to speculate that traditional role dominance may be even more evident in blue-collar families. Hence, investigating interrole conflict in blue-collar families may better elucidate the consequences of interrole conflict.

Finally, exploring potential solutions to WIF and FIW may be particularly relevant for the many individuals, male and female, who experience this conflict in their daily lives. Employers have attempted to address conflict between work and family by implementing programs such as flextime, job sharing, and employer sponsored childcare facilities. Although some research have illustrated the benefits of these programs in terms of alleviating interrole conflict for individuals (Barling & Barenbrug, 1984; Barham, Gignac, Gottlieb & Kelloway, 1995), it might also be informative to examine organizational support for these programs. Are employers supportive of employees who take advantage of these programs? Or is opting for such arrangements

detrimental to the progress of one's career, acting as another form of FIW? Further research can play an important role in improving the quality of work and family life by finding answers to these questions.

Conclusion

Results indicate that variables specific to the work domain may be antecedents of WIF for both partners. Especially noteworthy is the influence of work-role expectations on WIF. This result suggests that the attitudes of superiors and coworkers may be an important determinant of interrole conflict. This, in turn, suggests that employers may also play a pivotal role in alleviating conflict for their employees. What is certain is that WIF should be a concern for employers, since reduced job satisfaction may be its outcome.

Although the proposed antecedents of FIW were not supported, WIF was identified as a potential antecedent of FIW. As well, the potential outcomes of FIW lay in the work domain, suggesting that both types of interrole conflict are relevant for employers.

The results also suggested that role dominance may be a crucial mediating variable. That is, dual-earner couples may respond to interrole conflict by resorting to

traditional gender-role expectations regarding the prioritizing of work and family. Role dominance may become an issue in the work-family interface of dual-earner couples when they are faced with the stress of balancing work and family. It is clear that more research is needed to determine the place of role dominance in interrole conflict.

The unique strength in this study, as compared to past research, is its examination of both members of dual-earner couples. As well, the sample included only those couples who have children. By examining dual-earner couples with children, both the family and work domains were considered. The fact that the sample consisted of intact, healthy families who reported above-average incomes is a testament to the relevance of interrole conflict in people's lives. If intact, healthy families, with the resources to seek outside help, are reporting interrole conflict, such conflict may be even more applicable for single parents and lower-class families. These results indicate that WIF and FIW are occurring in the lives of both members of dual-earner couples with children. Overall, these results suggest that interrole conflict has important implications for the individual, for the family, and for the employer.

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