

Consequences of work–family conflict on employee well-being over time

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Keywords: Work-family conflict; Employee well-being; Longitudinal data; Social desirability bias.

The effects of work-family conflict on the well-being of a diverse sample of 342 non-professional employees from the greater Los Angeles area were examined. Data were collected at two points in time, and a rigorous research design was employed. The effects of self-report bias were considered by controlling for social desirability bias, and by collecting two sources of data (i.e. self-reports and co-workers reports). The results revealed that work-family conflict predicted employee well-being over and above social desirability bias. In addition, analyses were consistent when both self-reports and co-workers reports were utilized. Finally, work-family conflict was a longitudinal predictor of employee's positive well-being. Both cross-sectional and longitudinal analyses were consistent across self-reports and co-worker reports.

1. Introduction

Employees today are more likely than ever to be concerned with how to balance their work and family lives. Competing demands, which arise between work and personal roles, often result in conflict for employees. Research that examines work-family conflict has advanced over the last decade and has led to the development of theoretical models, empirical studies, and organizational sponsored work-family initiatives.

Changes in the demographic make-up of the workforce have been the primary impetus for the increased focus on work and family issues. The entry of women, dual earner couples, and single parents in the workforce underlie some of the most significant trends (Googins, 1991; Googins, Griffin, and Casey, 1994; Parasuraman, and Greenhaus, 1997; Zedeck, 1992). Simultaneous to these changes, businesses are experiencing rapid changes. Increased global competition, focus on customer service, and technological advances (which increase an employee's access to work) contribute to stress for both employees and employers in this highly competitive business world (Parasuraman and Greenhaus, 1997).

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To understand both the experiences of employees, and the changes that organizations can make to assist their employees, is an important consideration for work and family researchers.

Most studies on work–family conflict (WFC) examine models of stressors and their contribution to various personal and organizational outcomes. More specifically, researchers who study the work and family interface and its effect on conflict often utilize a framework that grew out of general stress models. Work stressors (e.g. hours worked, overload), non-work stressors (e.g. number of children, difficulties in marital relationships), and the interaction between work and family (e.g. inter-role conflict) are frequently studied (Frone, Yardley, and Markel, 1997; Greenhaus, and Parasuraman, 1986; Higgins, Duxbury, and Irving, 1992). Each of the above stressors may have a negative impact on personal and organizational outcomes. Although past studies have found strong evidence for the effects of work–family conflict, there are several methodological limitations that are consistently discussed in work and family literature. Specifically, many studies within this area have been based solely on cross-sectional self-report data (Adams, King, and King, 1996; Beutell, and Greenhaus, 1983). While all of these authors acknowledge the limitations with cross-sectional and self-report data, with the exception of a few studies (for example, Frone, Russell, and Cooper, 1997; Marks, 1998), most studies utilize these methods.

This points to three limitations within the current literature. First, self-reports may be highly influenced by respondent characteristics such as social desirability bias. Second, the majority of research studies rely solely on self-reports for both predictor and outcome variables, thus the established relationships may be affected by common method variance problems. Finally, although the relationship between work and family conflict and outcome variables is typically discussed as being a causal relationship, it is primarily tested with cross-sectional data. Although researchers continually acknowledge these limitations, and much about work–family conflict has been learned in past research, longitudinal designs and multiple sources of data are needed to extend this area of research. Thus, the purpose of this current research paper is to empirically test the relationships between work–family conflict and employee well-being using analysis strategies that will control for some of these problems (e.g. data were collected at two points in time).

1.1. Prior research on work and family conflict

Role theory has provided a useful framework to understand how men and women attempt to balance multiple roles. Within role theory, the scarcity hypothesis (Chapman, Ingersoll-Dayton, and Neal, 1994; Marks, 1977) proposes that the amount of time and energy individuals have is constant (fixed). Thus, an increase in roles results in the increased likelihood of role conflict, overload and negative repercussions. Likewise, a scarcity of energy creates conflict that produces stress and anxiety. There is evidence that multiple roles lead to perceptions of conflict and overload and have negative repercussions for the well-being and performance of employees (Alpert, and Culbertson, 1987; Burke, 1988; Frone, Russell, and Barnes 1986; Frone, Russell, and Cooper, 1992a; Googins, 1991). Role conflict is defined as the ‘simultaneous occurrence of two (or more) sets of role pressures such that compliance with one would make more difficult the compliance with the other’ (Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 1965, p. 19). In the work–family literature, role conflict is often examined within a stress and coping framework. Specifically, the effects of three stressors are considered (e.g. work pressures, home pressures, and inter-role conflict).

This current study will focus on inter-role conflict (specifically work–family conflict) as one type of stressor. Inter-role conflict results when pressures in one role are incompatible

with pressures in another role. For example, an individual may lack the necessary time to meet obligations at both home and work, or experience stress at home that affects performance at work (Greenhaus, and Beutell, 1985; Kopelman, Greenhaus, and Connelly, 1983). Conflicts that result from the work and family interface can be further differentiated into objective or psychological conflict (Greenhaus, 1988). In reality, individuals who attempt to balance work and home life experience objective conflict (e.g. a breakfast meeting is scheduled at the same time as the children have to be taken to school; an elderly parent calls with an emergency). In addition, individuals feel psychological conflict (e.g. the decision to spend weekend time at work rather than with family or friends). Rice, Frone, and McFarlin (1992, p. 156) state that the manner in which individuals perceive their work and family experiences reflects the 'goodness of fit between work and non-work life'. As a result, individuals inevitably feel increased levels of both objective and psychological conflict when there is a lack of fit between their work and family lives.

The prevalence of work and family conflict is well-documented. As early as 1964, Kahn and his colleagues found that one-third of male employees were concerned with the extent to which their jobs interfered with their family lives (Kahn, *et al.*, 1964). In a recent study of 2958 wage and salaried workers, Galinsky, Bond, and Friedman (1996) found that 58% of parents and 42% of non-parents reported at least some conflict; 17% of parents and 12% of non-parents reported a lot or quite a lot of conflict between work and family roles. This study demonstrated that work-family conflict is not limited to parents. Thus, it is important to include employees with traditional families as well as those who are not traditionally studied (e.g. single employees) in studies of work and family conflict.

There are several important personal outcomes of work and family conflict that have been identified in research. Work and family conflict and role strain have led to psychological symptoms such as higher stress (Chapman *et al.*, 1994; Googins, 1991), increased depression (Googins, 1991), physical ailments (Frone, Russell, and Cooper, 1997), increased somatic complaints (Burke, 1988), lower life satisfaction (Adams *et al.*, 1996; Aryee, 1992; Higgins *et al.*, 1992; Rice *et al.*, 1992), lower quality of family life (Higgins *et al.*, 1992) and lower energy levels (Googins, 1991). Furthermore, the presence of children was related to increased feelings of pressure in marriage and contributed to stress and lower life satisfaction (Brett, Stroh, and Reilly, 1992). Frone *et al.* (1997) recently found that family-affecting work conflict longitudinally predicted depression, poor physical health, and incidence of hypertension.

In summary, this research evidence strongly suggests that work-family conflict is related to employee health and well-being. However, in order to extend the work-family literature, it is beneficial to consider the consequences of work-family conflict over time while controlling for problems associated with self-report bias. Thus, the purpose of this current study is to: (1) explore the effects of work-family conflict while controlling for one type of self-report bias; (2) examine the immediate effects of work-family conflict as well as the effects 6 months later; and (3) to employ a rigorous research design that incorporates multiple sources of data.

1.2. *Self-report vs. other reports*

A methodological limitation discussed in the work-family literature is a reliance on self-report data. In fact, one of the most common shortcomings cited in work and family research is an over reliance on self-reports (Bedeian, Burke, and Moffett, 1988; Frone *et al.*, 1992a). The sole use of self-report data is problematic for two reasons. First, individuals may have a tendency to report in a way that makes them look more favourable.

Most commonly this is referred to as socially desirable responding or impression management. Social desirability bias has been studied extensively and has been found to be related to constructs used in organization research (Moorman, and Podsakoff, 1992) and relationship research (Hunsley, Vito, Pinset, James, and Lefebvre, 1996).

In addition, when research relies on one source of data, it is possible that the strength of relationships is inflated as a result of common method variance (Moorman, and Podsakoff, 1992; Podsakoff, and Organ, 1986; Schmitt, 1994). When multiple sources of data are utilized in a research study, and yield the same results, it is less likely that the findings are due to shared method variance or self-report bias. Multiple sources of data (e.g. supervisors, peers, and spouse) have been considered to better understand a variety of psychological topics. For example, multiple measures have been examined in studies of personality characteristics (Mount, Barrick, and Perkins Strauss, 1994), work performance (Borman, White, and Dorsey, 1995; Shore, Shore, and Thornton, 1992), and dyadic relationships (Hunsley *et al.*, 1996).

The incorporation of reports from others (e.g. peer assessments) makes an important contribution to the substantive area being studied. For example, Mount *et al.*, (1994) explored the validity of supervisor, co-worker and customer ratings of job, relevant personality characteristics (e.g. extraversion). In their research, they found that all 'other' ratings of personality characteristics were valid predictors of employee performance and accounted for a significant amount of variance over and above self-reports. One of their conclusions was that observer ratings of work-related personality characteristics may be more valid predictors than self-assessments because they are based on observations primarily made in the work environment. A further study that utilized peer evaluations within the work environment focused on performance of employees in assessment centres. Short *et al.* (1992) found strong support for the validity of peer evaluations and weaker construct validity of self-assessments within the context of assessment centres. They found this to be especially true for characteristics that could be observed first hand by peers in the assessment centre. Although the number of studies that use peer ratings are limited, it seems that peer ratings provide important information about employee's behaviour at work and help to establish the validity of substantive relationships previously explored with self-report data.

Relatively few studies within the area of work and family conflict have utilized multiple measures or reports from others to verify the effects of work-family conflict. For example, Frone *et al.* (1997) included both self-report health status as well as objective health measures (incidence of hypertension). They found that employees with high levels of one type of conflict (family-work) reported higher levels of self-reported depression and poor physical health, and increased incidence of hypertension. These results were verified with physical measures of health, therefore there is stronger support that these relationships are not affected by problems with self-report bias. Thomas, and Ganster (1995) found that a global measure of work-family conflict was related to higher cholesterol levels but not diastolic blood pressure in a sample of health professions. Although the health measures were based on self-reports, there was increased confidence that the information that they provided was valid because participants were in the health field. To further understand the impact of work-family conflict, it is necessary to control for social desirability bias, and to use multiple sources of data. Thus, the following hypotheses were predicted.

Hypothesis 1. Self-reported work-family conflict will predict self-reported well-being after controlling for social desirability bias.

Hypothesis 2. Self-reported work-family conflict will predict co-worker reported well-being.

1.3. Cross-sectional vs. longitudinal research designs

A second methodological problem frequently cited in work and family research is the use of cross-sectional designs (Adams *et al.*, 1996; Beutell, and Greenhaus, 1983; Greenhaus, 1988). With the exception of a few studies (Frone *et al.*, 1997; Thomas, and Ganster, 1995), the majority of work-family conflict research studies collect data at one point in time. As a result, it is difficult to determine the direction of the relationship between variables. In one 4-year study, two different types of work and family conflict were found to be longitudinally related to key personal outcomes (Frone *et al.*, 1997). However, the authors speculated that the use of a shorter time between data collection (< 4 years) may have provided more robust evidence for a causal relationship.

The current research employed a longitudinal design with a shorter, 6-month, time lag between the collection of predictor and outcome measures, and thus provides further evidence that work-family conflict has both immediate and longer-term effects on outcome variables. The major advantage of using longitudinal data in applied research settings (e.g. where manipulation of variables is not possible), is that it enhances the likelihood that one variable is significantly predicting another (e.g. work and family conflict preceded the outcome variables by 6 months). In contrast, when all the data are collected from one point in time, it is difficult to determine the direction of the relationship. In order to analyse the effects of work-family conflict both immediately and 6 months later, the following hypotheses were tested with longitudinal data.

Hypothesis 3. Self-reported work-family conflict at time 1 will predict self-reported employee well-being at time 2, after controlling for baseline self-reported well-being.

Hypothesis 4. Self-reported work-family conflict at time 1 will predict co-workers reported well-being at time 2, after controlling for baseline co-worker reported well-being.

2. Method

2.1. Participants

Participants in Project WORKWELL, who were from the greater Los Angeles area, participated in two waves of data collection (6 months apart). The survey completion rate at time 1 was 97% (400 of 413 individuals completed both self-report and co-worker surveys). At time 2, 366 participants (89% of the total original sample) returned to complete the second part of the study. There were only non-significant differences in the demographic characteristics of the participants at time 1 and time 2; therefore, only time 1 demographics were reported for this study.

The majority of the participants were women (70%). The mean age was 43 years. The non-professional employees in this sample represented the ethnic diversity of the greater Los Angeles area. The following is the ethnic racial composition: 45% Latino American; 15% African-American; 10% Asian; 22% European American; 6% other; 2% did not report. In terms of marital and parental status: 43% were single non-parents; 34% were married parents or non-parents, and 22% were single parents. A total of 43% of respondents had at least one child living with them. The modal number of children living at home was 1. In terms of participants' highest levels of education, the majority of participants held a high school degree and reported some junior college experience.

Participants reported a wide range of hours that they worked per week (5 to 90 h). However, 50% reported that they worked 40 h/week while 20% reported that they worked more than 40 h/week (mean = 37 h/week). On average, employees reported that they had been working for their company for 6 years. Half of the respondents reported earning a

personal salary of \$20,000 or less per year; 20% reported a personal salary between \$20,000 and \$25,000. Participants worked for a diverse range of companies. Many respondents reported that they worked for educational institutions (20%), health care organizations (17%), financial services (11%), retail stores (7%), or county agencies (7%). At time 2 data collection, 87% of respondents reported that they worked for the same company as they did at time 1.

2.2. Procedure

Data were collected by a team of researchers as part of a larger research project that examined non-professional employees' lifestyles, work environments, mental and physical health and work performance. In addition to these substantive issues, Project WORKWELL was designed to better understand and control for response bias. Therefore, multiple measures (self-reports and co-worker reports) and a longitudinal design were employed. Participants were recruited by using fliers displayed in local workplaces and advertisements placed in newspapers and community publications. All recruitment materials offered participants \$50, a free lifestyle assessment, and copies of research findings. Individuals who contacted the research office about the study were screened for a variety of requirements. First, to limit attrition for the time 2 study, participants were required to have lived at the same address and had the same telephone number for the past 6 months, or to have worked for the same company for the previous six-month period. Second, participants were encouraged to participate with a co-worker whom they knew well.

Each individual was informed that it was important for co-worker pairs to participate in the study at the same time. Thus, virtually all participants arrived at the research institute with a co-worker. On average, co-workers reported that they had known each other for approximately 6 years (mean = 55 months). In addition, participants were asked to indicate the best description of their relationships with their co-workers. A total of 60% described their co-workers as a 'friend' or 'very good friend'. Only 20% described their relationship with their co-worker as 'co-worker only' or 'acquaintance'. Finally, the majority of respondents reported that they knew a lot about their co-workers, worked closely with their co-workers, and socialized with him or her outside of work.

The procedure for the study was identical at time 1 and time 2. All participants were seated in a conference room at the research institute upon arrival. A trained research assistant gave verbal instructions regarding the study. After they signed a consent form, participants were given a series of questionnaires to complete. The questionnaires contained items that asked about the individual (self-report questionnaire), the co-worker whom they brought with them (co-worker questionnaire), and a third questionnaire that included bias measures (e.g. social desirability scale). Participants were asked to complete a series of questionnaires at two different points in time (separated by 6 months).

2.3. Missing data

Given that the purpose of this study was to examine longitudinal relationships between variables, it was preferable to include participants with complete data from both time 1 and time 2. In addition, to examine the relationship between self-reports and co-workers reports, each participant needed to provide self-report and co-worker report data. Thus, only those participants ($n = 342$) who had complete data at both time 1 and time 2 were included in the current study.

After cases with incomplete data were deleted, independent sample *t*-tests were conducted to determine if there were differences between individuals with missing data and the other participants on each of the dependent measures. No meaningful differences were determined between these two groups on the outcome measures.

2.4. Materials

Some items were asked on both the self-report and co-worker report questionnaire, and some were asked only on the self-report questionnaire. Specifically, work and family conflict was based solely on self-report data; however, employee well-being was based on both self-reports and co-worker reports. When co-worker and self-reports were used, scales contained the same items in both. As necessary, items were reworded so that they were appropriately phrased for a co-worker to answer.

2.4.1. *Work and family role conflict*: Four items were used as a global measure of work and family role conflict. These general questions are based on literature in this area. Example items included: 'I experience much conflict because my work and family demands are incompatible' and 'I feel overwhelmed at times about my family demands'. A 4-point response category that ranged from strongly agree to strongly disagree was used for these items. The 4-item measure of work and family role conflict had an acceptable α level (time 1: $\alpha = .73$, $n = 341$; time 2: $\alpha = .72$, $n = 341$). This measure was based on literature within the area, but was not a previously validated scale, thus validity was examined using data collected from another sample. Findings suggested that this 4-item measure is correlated to a validated measure of work-family conflict. The relationship between the current 4-item measure and a validated 5-item measure of work-family conflict (Netemeyer, Boles, and McMurrian, 1996) was examined with another data set (Grant-Vallone, and Ensher, 2001). After using the correction for attenuation formula (Pedhazur, 1997), these two measures were found to correlate ($r = .65$, $p < .001$).

2.4.2. *Employee health*: Items from the General Well-Being Schedule were used to measure employee well-being. This measure was chosen because it examines overall well-being, has been used extensively in past research, and has been found to have high reliability and validity (Andrews, and Robinson, 1991; Donaldson, 1991). The measure of positive well-being included three items, such as 'How happy, satisfied, or pleased have you been with your personal life during the past month?'. This scale was reliable with both self-reports and co-worker reports (self-reports: $\alpha = .74$, $n = 341$; co-worker reports: $\alpha = .75$, $n = 341$). Response categories were on a 6-point scale. The convergence between self- and co-worker reports was moderate at both time 1 and time 2, respectively ($r = .37$; $r = .31$).

2.4.3. *Social desirability bias*: The Marlowe-Crowne Social Desirability Scale (SDS) was used to measure socially desirable responding (e.g. the extent to which employees respond in ways that make them look more favourable). This scale consists of 33 true/false items that describe culturally approved behaviours with a low probability of occurrence (Crowne, and Marlowe, 1960).

2.5. Overview of analyses strategy

As a first step, group level differences were examined to better understand how demographic differences (gender, marital status, etc.) affected work-family conflict. Next in order to test the relationship between work and family conflict and employee well-being a series of regression analyses were conducted. For each analysis, gender, marital status, number of children, and hours worked were used as control variables. Work and family conflict was based on self-reports taken from time 1, and well-being was based on both self- and co-workers reports at time 1 and time 2.

3. Results

3.1. Overview of work and family conflict

Given the diversity of this sample in terms of gender and marital status, group level differences were first explored. There were no significant differences between men and women on their perceived level of work and family conflict. Thus, women ($m=2.28$; $SD=.56$) and men ($m=2.19$; $SD=.53$) reported similar levels of work and family conflict. When comparisons between employees in different family status groups were made, there was no significant differences between single non-parents, married parents and non-parents, and single parents on their level of perceived conflict. However, parents with children under the age of 6 years were more likely to agree or strongly agree that they experienced much more conflict between their work and family roles than other participants (37% vs. 21%). Parents with young children were only slightly more likely to report that they felt overwhelmed by their family demands (54% vs. 47%). There were no significant differences between employees who were single, married or divorced on work and family conflict. Single employees were as likely to report high levels of conflict as those who were married. For example, 23% of single employees reported high conflict; 25% of married parents reported high levels of conflict.

3.2. Cross-sectional analyses

To explore the relationship between work-family conflict, well-being, and social desirability bias Pearson correlation coefficients were computed. Social desirability bias was significantly related to self-reported work-family conflict and self-reported well-being. Refer to table 1 for descriptive statistics and an intercorrelation matrix.

To test Hypothesis 1, which predicted that work-family conflict would be related to self-reported positive well-being over and above social desirability bias, social desirability bias was entered as a control variable in the regression analyses. This hypothesis was supported. Overall, the model explained 24% of the variance in self-reported well-being. Although social desirability bias was significantly related to well-being ($\beta=.30$, $p<.001$), work-family conflict significantly predicted an employee's level of well-being over and above social desirability bias and other control variables (gender, marital status, number of children, and hours worked), $\Delta R^2=.08$, $F=34.43$, $p<.001$. Work-family conflict was

Table 1. Correlation matrix with self-reports of work and family conflict, support, and outcomes variables ($n=342$).

	Mean	SD	1	2	3	4	5	6	7
<i>Baseline</i>									
1. Work-family conflict	2.29	0.57	–						
2. Social desirability	1.06	0.18	–.12*	–					
3. Hours worked	37.97	10.76	–.04	–.06	–				
4. Self well-being	3.89	1.05	–.32**	–.29**	–.04	–			
5. Co-worker well-being	3.90	0.96	–.18*	.07	–.11	.37**	–		
<i>Follow-up</i>									
6. Self well-being	3.77	1.04	–.28**	.21**	.01	.55**	.21**	–	
7. Co-worker well-being	3.86	1.03	–.27**	.00	–.07	.27**	.50**	.31**	–

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

significant in the final regression equation predicting self-reported well-being ($\beta = -.29$, $p < .001$).

The purpose of the second hypothesis was to examine the relationship between work-family conflict and co-worker reported well-being. Hypothesis 2 predicted that self-reported work-family conflict would predict co-worker reported positive well-being. This hypothesis was supported. Overall, the model explained 7% of the variance in co-worker reported positive well-being. There was a significant incremental change in R^2 when work-family conflict was entered into the regression equation ($\Delta R^2 = .03$, $F = 9.97$, $p < .001$). Work-family conflict was significant in the final regression equation predicting co-worker reported well-being ($\beta = -.17$, $p < .001$). In summary, although these findings are not as strong as those with self-reports, the findings with co-worker reports do replicate what was found with self-reports and suggest that work-family conflict was significantly related to employees' well-being.

3.3. Longitudinal analyses

Hypothesis 3 was concerned with the longitudinal relationship between work and family conflict and self-reported positive well-being. This hypothesis was supported. Work-family conflict was a significant longitudinal predictor of an employee's positive well-being over and above the control variables and baseline well-being. In this analysis, the self-reported well-being at time 1 was entered on the second step of the regression equation and was the strongest predictor of health 6 months later. For self-reported positive well-being, there was a significant incremental change in R^2 when work-family conflict was entered into the regression equation ($\Delta R^2 = .01$, $F = 4.84$, $p < .05$), and work-family conflict was significant in the final regression equation ($\beta = -.11$, $p < .05$).

Hypothesis 4 predicted that there would be a longitudinal relationship between self-reported work-family conflict and co-worker reported well-being. This hypothesis was supported. Consistent with analyses based solely on self-reports, work-family conflict longitudinally predicted positive well-being ($\Delta R^2 = .03$, $F = 13.33$, $p < .001$) over and above baseline co-worker reported positive well-being. Work-family conflict was significant in the final regression equation ($\beta = -.17$, $p < .001$).

4. Discussion

4.1. Summary and implications

This study was designed to test the substantive relationship between work-family conflict and employee well-being for a diverse sample of non-professional employees, while also addressing two limitations that are frequently discussed in work-family literature. Specifically, the purpose of this study was to examine both cross-sectional and longitudinal relationships, based on multiple sources of data, between work-family conflict and employee well-being. Analyses strategies were used to control for problems associated with self-reported bias. The first set of analyses considered cross-sectional data, and strongly suggested that employees who reported high levels of work-family conflict also reported lower levels of positive well-being. These findings were consistent when social desirability bias was controlled for in self-report data, and were replicated when co-worker reports of outcomes were utilized. The second set of analyses examined the longitudinal relationship between work-family conflict and employee well-being. There was evidence that work-family conflict predicted self- and co-worker reported positive well-being.

This study extends previous research on work-family conflict in several ways. First, the

fact that substantive relationships found in past research were supported with this data has important implications. Specifically, the finding that work–family conflict significantly predicted well-being over and above social desirability bias suggests that results are not solely due to problems with self-reported bias. Second, the relatively high level of consistency between results with self-reported and co-worker reported dependent variables suggest that it is unlikely that the findings are a result of shared method variance. As both self-report and co-worker report data were considered, the validity of the substantive relationships explored was greatly enhanced. Third, data were collected at two points in time, therefore the internal validity of this study was enhanced. Although the longitudinal effects were small, work–family conflict had both immediate and longer term effects on employees' overall well-being. Based on their 4-year longitudinal study, Frone *et al.* (1997) suggested that the causal impact of work and family conflict occurs in a shorter time span. The findings of this 6-month study seem to suggest that this is true.

The findings that work–family conflict is not limited to employees with traditional responsibilities or to those who hold higher level positions is another important implication of this study. For this diverse sample of employees, the majority of whom had no college experience and a low income, the effects of balancing work and family roles were detrimental to their well-being. The relationships between conflict and well-being were consistent for employees who were in different family situations (e.g. conflict had the same effect for parents and non-parents) and were consistent across men and women. While past research has demonstrated that conflict results from actual environmental and family conditions (e.g. number of children), for the participants in this study conflict seemed to stem from psychological perceptions rather than demographic characteristics.

Consistent with findings from Galinsky *et al.* (1996), this study informs both researchers and organizational leaders that work and family conflict is not exclusively a problem for employees with traditional family responsibilities. It was clear from this study that employees with all types of family situations can experience high levels of work and family conflict. The diversity of this sample in terms of gender, ethnicity, marital status, and parental status strongly suggests that work and family conflict affects all types of employees, and that there is a need to specifically address work and family issues as a component of organizational development. To help employees to achieve a balance between time spent at work and time spent on one's personal life requires organizations to continually consider a variety of employee needs and options for addressing those needs.

4.2. Limitations

Although these are important strengths of the study, there were limitations as well. The first concerns the global measure of work–family conflict used in this study. Although numerous past studies have used a global measure of work–family conflict and have reported significant and interesting results (Bacharach, Bamberger, and Conley, 1991; Thomas, and Ganster, 1995; Wiersma, 1990), recent developments in work and family research have demonstrated that it is valuable to consider the effects of work on family life separate from the effects of family on work life (Frone, Russell, and Cooper, 1992b; Frone *et al.*, 1997; Netemeyer *et al.*, 1996). However, there is evidence that it is most important to use bi-directional work and family conflict measures when domain-specific outcomes are explored. Since this study examined well-being measures, there is evidence that both types of conflict have an effect and, therefore, a global measure of work–family conflict is appropriate. Furthermore, although the work–family conflict measure used in this study consisted of only four items, it was found to be significantly correlated to a validated

measure of work-family conflict that has been used in previous research (Netemeyer *et al.*, 1996).

Second, inconsistencies between self- and co-worker measures (e.g. they are not perfectly correlated) did exist. In addition, all self-reported variables were significantly related to social desirability bias. This continues to raise an important problem in work-family research. Is it enough to control for social desirability bias in analyses? Should measures besides self-reports be examined in research? It is unclear whether or not self-reports or co-worker reports are more valid measures of an employee's behaviour, or whether the best estimate of behaviour lies somewhere in-between (Donaldson, and Grant-Vallone, 1999).

This study used only two intervals of data collection. More data collection points are needed to understand the changing nature of work and family issues over time. Furthermore, the fact that constructs in this study were measured rather than manipulated does limit certainty about cause and effect because all threats to internal validity cannot be ruled out. The nature of work and family research does not allow for manipulation of variables, therefore longitudinal data is the most viable option for enhancing internal validity.

Finally, the results of this study have limited generalizability to the entire workforce. All respondents were non-professional employees and volunteered to participate in the study. Many of the relationships demonstrated in this study were similar to past research; however, employees who participated in this study reported slightly lower levels of work and family conflict than is normally found in research in this area (Googins *et al.*, 1994). For example, only 25% of employees reported 'much' conflict between their roles. The employees in this sample may have unique concerns related to work-family conflict that may need to be further addressed. The negative consequences of work and family conflict for this group of employees are clear; however, it is less evident why certain people experience conflict and why others do not.

4.3. *Future directions*

To more fully understand the conditions under which individuals experience conflict between their roles is critical for work and family research. There is a need to consider the environment in which one works and lives in addition to the individual's feelings, goals and attitudes in future research. For example, an individual who is involved with his or her job, and receives a great deal of satisfaction from it, may be able to cope with some conflict as a trade-off for career success. Future research should explore what contributes to multiple facets of conflict (work affecting family and family affecting work) for non-professional employees.

Future studies should also continue to refine the methodology used in the area of work-family research. In order to more fully understand one's work and family life, researchers who study work-family roles should include multiple perspectives, such as partners, spouses, or children. In addition, it is necessary to explore multiple waves of data collection over a longer period of time to better understand the changing nature of work-family roles over time. If the number of waves of data collection were increased in longitudinal studies, researchers could examine how the stages of life (e.g. marriage, childbirth, and retirement) affect work and family concerns. Finally, because it is clear that work-family conflict is a salient issue across different groups of employees, organizational programmes need to be developed and evaluated to better support all types of employees.

It is evident that as employees attempt to balance their work and personal lives, they experience conflict between their roles. This study extends past research and provides

cross-sectional and longitudinal evidence, from multiple sources of data, that work-family conflict does influence employees' mental well-being. The multiple sources of data utilized in this study suggest that this relationship is not simply due to methodological limitations, such as self-report bias. Hence, policies that reduce conflict and promote balance between work and personal life are needed for all employees and not just those who are perceived as having high levels of work demands (managers) or those with traditional families. Organizations are urged to consider work and family balance and its impact on these individual behaviours as a business issue that affects all organizations.

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