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*Family and Consumer Sciences Research Journal* 2008; 36; 310 originally published online Apr 18, 2008;

DOI: 10.1177/1077727X08316025

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# Work Interference with Dinnertime as a Mediator and Moderator Between Work Hours and Work and Family Outcomes

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*Using a sample of U.S. IBM employees who are parents (N = 1,580), the authors evaluated whether work interference with dinnertime mediates and moderates the relationship between work hours and work, personal, and family outcomes. The negative relationships between work hours and success in personal life, relationships with spouse/partner and children, and the perception of an emotionally healthy workplace were mediated by work interference with dinnertime. The positive relationship between work hours and work-family conflict was partially mediated. Testing for interactions revealed evidence of the moderating effect of dinnertime and gender. These findings provide strong support for the potential role of dinnertime in reducing the negative work, personal, and family outcomes associated with long work hours and conflict in the work-family interface.*

**Keywords:** *family meals; work-family conflict; dinnertime; work-family facilitation; family rituals*

The past 25 years of work-family research have focused extensively on the antecedents and consequences of work-family conflict or perceived difficulty in meeting the competing demands of work, family, and personal life (Frone, 2003). Many studies have identified work and family factors that are associated with work-family conflict and an array of negative work, personal, and family outcomes (for a review, see Allen, Herst, Bruck, & Sutton, 2000; Kossek & Ozeki, 1998). Studies have also revealed that some individuals and families have been more resilient to the stresses of work-family conflict by using routines and rituals also known as adaptive patterns to mediate or moderate their effects (Anderson & Leslie, 1991; Beutell & Greenhaus, 1982, 1983; Kirchmeyer, 1992; Paden & Buehler, 1995). Routines and rituals, in particular, seem to ease the stress of daily living as individuals and families juggle the busy demands of work and home (Fiese et al., 2002). When

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**Authors' Note:** We thank International Business Machines Corporation (IBM) for providing the support and cooperation needed to collect the data used in this article. We also thank the Family Studies Center of the Brigham Young University (BYU) School of Family Life for its support of this project. Ideas expressed are the opinions of the authors, not necessarily of IBM or BYU. Jenet I. Jacob, PhD, is an assistant professor in the School of Family Life, BYU. Sarah Allen, PhD, is a research associate in the School of Family Life, BYU. E. Jeffrey Hill, PhD, is an associate professor in the School of Family Life, BYU and a research associate for IBM Global Workforce Diversity. Nicole L. Mead, MA, is a graduate of the School of Family Life, BYU. Maria Ferris is director of IBM Global Workforce Diversity. Correspondence concerning this article should be addressed to Jenet I. Jacob, School of Family Life, BYU, 2061 JFSB, Provo, UT 84602; e-mail: [jenet\\_jacob@byu.edu](mailto:jenet_jacob@byu.edu).

Family and Consumer Sciences Research Journal, Vol. 36, No. 4, June 2008 310-327

DOI: 10.1177/1077727X08316025

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work commitments prevent individuals from participating in adaptive routines and rituals, the effects of work-family conflict may be particularly deleterious.

Family meals, and particularly dinnertime, have long been considered an important routine. Family mealtime is credited with the ability to positively affect family processes and operate as a protective factor for individuals in a variety of contexts (Cannon, 1998; Eisenberg, Olson, Neumark-Sztainer, Story, & Bearinger, 2004; Fiese et al., 2002). But work interference with the family meals routine has not yet been evaluated as a factor in the work-family interface. It is plausible that individuals who experience work interference with meal times, particularly dinnertime, may experience greater conflict in the work-family interface and negative work, family, and personal outcomes because of its unique contributions as a family routine.

The purpose of this study is to explore whether the frequency of work interference with dinnertime mediates and/or moderates the association between work hours and work, personal, and family outcomes. Work outcomes explored included success in work life, the perception of the workplace being emotionally healthy, and the perception of work-family conflict. Personal outcomes included the perception of success in personal life. Family outcomes included the perception of success in the relationship with spouse/partner and the relationship with children. A moderating or mediating relationship was identified to the extent that the reported frequency of missing dinnertime because of work reduced or eliminated the relationship between work hours and work outcomes, personal outcomes, and family outcomes (Baron & Kenny, 1986). Evaluating the work, personal, and family outcomes associated with work interference with dinnertime contributed to the largely unexplored area of potential mediators and moderators in the work-family interface. Furthermore, the analysis provided an exploration of the extent to which dinnertime may be an important routine or an adaptive pattern that facilitates a healthier work-family interface.

## CONCEPTUAL FRAMEWORK

The study's conceptual framework is grounded in ecological systems theory (Bronfenbrenner, 1986) and specifically in Voydanoff's (2002) application of that theory to work-family research. Work and family are seen as discrete microsystems through which the individual engages in "networks of face-to-face relationships" (Voydanoff, 2002, p. 138). The reciprocal influence between the work and family microsystems composes what is called the work-family mesosystem. The framework proposes that there are family factors that may influence the relationship between work and family characteristics, work-family conflict, and work and family outcomes as well as work outcomes. Our purpose is not to test the Voydanoff model. We used the framework to select variables of interest and organize our results. We drew on family resilience theory that articulates how adaptive family behaviors and strategies such as routines and rituals may act as factors that offset or eliminate the effects of work-family conflict (Grzywacz & Bass, 2003).

## RELATED RESEARCH

The sections that follow review research on the relationship between work hours and work, personal, and family outcomes followed by a review of research

on associations between dinnertime and positive work, personal, and family outcomes. This provides a framework for evaluating whether work interference with dinnertime mediates and moderates the relationship between work hours and work, personal, and family outcomes.

### **Work Hours, Work–Family Conflict, and Work, Family, and Personal Outcomes**

Increased work hours and workload have consistently been associated with negative work, personal, and family outcomes in literature on the work–family interface. The most consistently predicted negative outcome from work hours, however, has been work–family conflict. Indeed, one of the most commonly measured forms of work–family conflict is time-based conflict, a measure of the relationship between work hours and the perception of distress and interference within the work and family domains (Parasuraman & Greenhaus, 2002). Studies of the work–family interface indicate a direct negative effects of increased work hours on work, personal, and family outcomes as well as indirect effects of increased work hours on negative outcomes through increased work–family conflict.

A range of negative work outcomes including decreased job satisfaction and retention (Allen, 2001) and decreased job performance (Burke & Greenglass, 1999; Phillips-Miller, Campbell, & Morrison, 2000) has been associated directly with work–family conflict. Negative personal outcomes have also been associated directly with work hours (Galinsky, Kim, & Bond, 2001; Phillips-Miller et al., 2000) and indirectly through work–family conflict. These have included decreased life satisfaction (Adams, King, & King, 1996; Aryee, Fields, & Luk, 1999), psychological distress (Burke & Greenglass, 1999; Frone, Barnes, & Farrell, 1994; Major, Klein, & Ehrhart, 2002), and higher levels of depression, anxiety, increased alcohol consumption, problem drinking, and poor physical health (Frone, Russell, & Cooper, 1997; Major et al., 2002).

Negative family outcomes associated with long work hours have included increased marital tension (Hughes & Galinsky, 1994), decreased marital satisfaction (Mauno & Kinnunen, 1999), and less positive marital interactions (Dumas, Margolin, & John, 2003). The psychological distress resulting from increased work–family conflict has also been found to affect family relationships both directly and indirectly by reducing the amount of energy and psychological investment available for relationships. Work–family conflict has been associated with decreased marital satisfaction (Swanson & Power, 1999), increased relationship hostility and decreased warmth and supportiveness (Major et al., 2002; Matthews, Conger, & Wickrama, 1996), and a climate of less emotional cohesion, love, respect, and expressions of appreciation (Wiersma & Van Den Berg, 1991). These findings have contributed to evidence of a direct and indirect relationship between work hours and work–family conflict and negative work, family, and personal outcomes.

### **Routines and Rituals as Mediators of the Work–Family Interface**

A substantial body of research has evaluated the benefits of family routines and rituals on family outcomes and specifically, the relationship between dinnertime and individual outcomes. No research to date, however, has evaluated whether the intrusion of work in preventing routines or rituals mediates or moderates the work–family interface. Studies that have evaluated mediators or moderators of

the work–family interface have focused on individual personality and attitude characteristics (Anderson & Leslie, 1991; Beutell & Greenhaus, 1983), individual coping mechanisms (Beutell & Greenhaus, 1982), and couple relationship coping mechanisms (Paden & Buehler, 1995). As expected, findings indicated that individual and couple coping patterns may alter the relationship between work characteristics and perceptions of conflict and between perceptions of conflict and negative outcomes. The intrusion of work on family behaviors such as dinnertime, however, has not been explored.

### **Dinnertime and Work, Family, and Personal Outcomes**

The body of research that has evaluated the benefits of family routines and rituals, specifically dinnertime, has identified positive individual and family outcomes. The findings suggest that work demands that prevent family dinnertime participation may be associated with negative personal and family outcomes. Studies of personal outcomes associated with regular dinnertime have largely focused on developmental outcomes for children and adolescents and identified several socioemotional, cognitive, and health benefits. Regular dinnertime has been associated with less adolescent risk for a variety of internalizing behaviors such as depression, weak self-esteem, suicidal thoughts, attempted suicide, withdrawn or distressed behavior, and behavioral problems (Eisenberg et al., 2004; Fiese et al., 2002; Hofferth & Sandberg, 2001). Adolescents who ate regularly with their families were also less likely to use tobacco, alcohol, and marijuana and engage in other risk-taking behaviors (Eisenberg et al., 2004; The National Center on Addiction and Substance Abuse, 2007). In addition, regular dinnertime has been associated with improved dietary quality, healthy food-related attitudes, behaviors, and consumption patterns, and less risky eating and weight control behaviors (Gillman et al., 2000; Neumark-Sztainer, Hannan, Story, Croll, & Perry, 2003; Neumark-Sztainer, Wall, Story, & Fulkerson, 2004; Stanek, Abbot, & Cramer, 1990; Videon & Manning, 2003).

Studies indicating positive family outcomes associated with family routines and rituals including dinnertime have emphasized their importance in creating and preserving family connection and cohesion, strengthening family boundaries and solidarity, improving individual and family identity, and creating a sense of family stability, predictability, and continuity (Burr, Day, & Bahr, 1993; Laird, 1991; Mize, 1995; Wolin & Bennett, 1984). Cannon (1998) found that regular family meals, in particular, created and sustained a sense of family closeness, cohesion, connection, bonding, and feelings of group membership. Thus, individuals whose work demands prevent them from experiencing the routines of dinnertime will not experience the positive personal outcomes or beneficial stress-reducing effects on family outcomes.

### **Dinnertime and Gender Effects**

Several studies exploring the potential benefits of family meals have found gender differences, suggesting that men and women who miss family dinnertime because of work may experience the effects differently. Typically, findings showing gender differences demonstrate the following trends: (a) Family meals are a stronger protective factor for adolescent girls than boys (Eisenberg et al., 2004), (b) family meals can be related to eating disorders for girls (Mellin, Neumark-Sztainer,

Patterson, & Sockalosky, 2004), and (c) adult men and women differ in their responsibility for family meals (Charles & Kerr, 1988; Dreyer & Dreyer, 1973; Statistics Canada, 1999).

Eisenberg et al. (2004) found that family meals operated as a protective factor for all adolescents, but the effect was particularly pronounced for adolescent girls. Adolescent girls who ate more than seven family meals per week were almost half as likely to report a suicide attempt compared with girls who reported no family meals and were more likely to evidence weak self-esteem. In explaining their findings, Eisenberg et al. speculated that "girls may be particularly sensitive to the nuances of family interactions, and the frequency of family meals may therefore be more important to their behavioral and emotional health" (p. 795). Likewise, Mellin et al. (2004) found that families with disordered eating girls were more likely to have less frequent family meals than families with nondisordered eating girls. Neumark-Sztainer et al. (2004) found that adolescents who reported more frequent family meals, higher priority for family meals, a positive atmosphere at family meals, and a more structured family meal environment were less likely to engage in disordered eating and that this association was stronger among girls than among boys.

As no research has assessed the impact of dinnertime on outcomes for adults, it is difficult to hypothesize what kinds of gender effects relating to dinnertime may exist for adults. Some studies have suggested that the dinner experience is different for adult males and females because of the amount of responsibility women have in orchestrating, planning, coordinating, and performing meal-related tasks (Charles & Kerr, 1988; Dreyer & Dreyer, 1973; Statistics Canada, 1999). Dreyer and Dreyer (1973) found that women were universally responsible for preparing, serving, and cleaning up the family dinner in the 40 White, middle-class American families they studied. Charles and Kerr (1988) found that 88.5% of the women in their sample from England were responsible for regular meal preparation. Data from the more recent Canadian General Social Survey (Statistics Canada, 1999) found that men spent 36% as much time as women in the preparation and clean up of meals, but spent as much or more time in consuming meals. Women, on the other hand, spent more hours cooking and cleaning up.

In addition to differences in the amount of time spent preparing, serving, and cleaning up, Devault (1991) argued that other tasks such as organizing and monitoring dinnertime talk and monitoring and controlling the children's behavior during meal times are primarily the responsibility of women. Although men's participation in unpaid family work has increased during the last 17 years, women continue to be responsible for the majority of household tasks (Bianchi, Milkie, Sayer, & Robinson, 2000). Thus, it is likely that dinnertime remains primarily a female responsibility in many households. Because of these differences in responsibility, it is plausible that men and women may experience the relationship between missing family meals because of work and the work-family interface differently.

### Research Questions

The outcomes outlined in this literature review indicate that dinnertime has been associated with positive individual and family outcomes, and that dinnertime has the potential to enhance individual and family resilience to stresses associated with the work-family interface. This provides rationale for our choice to evaluate whether work interference with dinnertime may mediate and moderate the

relationship between work hours and work, personal, and family outcomes. Taking into consideration the well-established pathways between work hours and a variety of work-family conflict outcomes and understanding the potential of family meals to facilitate individual and family processes, we tested the following hypotheses:

*Hypothesis 1:* There will be evidence that work interference with dinnertime mediates the relationship between work hours and work-family conflict, the perception of success in work life, the perception of success in personal life, the perception of success in relationships with spouse/partner and children, and the perception of an emotionally healthy workplace, as measured by a change from a significant relationship to an insignificant relationship.

*Hypothesis 2:* The interaction of work interference with dinnertime and work hours will moderate the relationship between work hours and work-family conflict, the perception of success in work life, the perception of success in personal life, the perception of success in relationships with spouse/partner and children, and the perception of an emotionally healthy workplace, as measured by a reduced relationship. Moderation will be more pronounced for women than for men.

## METHOD

The source for the data in this study is the IBM 2004 Global Work and Life Issues Survey. It consists of more than 100 questions asked of 97,644 employees in 79 countries designed to help IBM take action around the world to address employee needs related to work and personal/family life. Altogether, 41,769 responded for a participation rate of 43%. Researchers had access to the data because one of the authors was a principal investigator in this survey and was given permission to analyze data and include the analyses in this article subject to corporate review, while another of the authors is currently an IBM employee.

For the current study, all U.S. IBM employees who are parents with dependent children younger than age 18 found in the original survey were selected out to create a subsample ( $n = 6,000$ ) from which a random sample of 1,580 respondents was drawn for analyses. The survey did not provide information as to whether dependent children younger than age 18 lived at home.

### Description of Sample

The sample was representative of the distribution of job levels among IBM employees: professionals (77%), managers (13%), and executives (9%). The types of jobs reported were indicative of the high level of skills needed, hardware/software/other engineers (25%), information/technology professionals (19%), sales/marketing (11%), product support (11%), finance (5%), consultants (5%), human resources (3%), manufacturing (3%), and other job categories (18%). These jobs typically require high levels of university education and are generally compensated with above-average salaries (average income was \$113,514 per year). The couple status of the sample included the following: spouse/partner works full-time (54%), spouse/partner works part-time (16%), spouse/partner not employed for pay (22%), and single parent (8%). The sample was 51% male and 49% female, 90% worked full-time and 10% part-time, with an average age of 45, an average tenure with IBM of 15 years, and an average of 2.1 children.

## Measures

*Independent variables.* Established work–family scales were not used for data collection on these variables because the corporate sponsors required that the number of questions be limited to reduce the amount of time that respondents would be away from work. Single items were used for study variables. This trade-off was necessary to gain access to corporate workforce (Hill, Yang, Hawkins, & Ferris, 2004). The measures used have been developed and validated at IBM during the past 20 years by experts in policy and methodology both within and outside of IBM (see Hill, Jackson, & Martinengo, 2006, for a description of the survey process at IBM).

Work hours were measured by the question, “How many hours per week do you typically work for IBM? (Please make an average per week estimate covering the last 6 months).” Work interference with dinnertime was measured by the question, “In the last 6 months, how many times, if any, have [you] missed dinnertime because of work?” The options were the following: 1 (*never*), 2 (*once*), 3 (*twice*), 4 (*3 to 4 times*), 5 (*5 to 9 times*), 6 (*10 to 19 times*), 7 (*20 to 29 times*), 8 (*30 to 49 times*), and 9 (*50+ times*). To create a variable with a more normal distribution, the responses were collapsed into three categories: high dinnertime (Responses 1 to 2), medium dinnertime (Responses 3 to 7), and low dinnertime (Responses 8 to 9) participation.

*Dependent variables.* Work–family conflict was measured by the question, “How easy or difficult is it for you to manage the demands of your work and your personal/family life?” The possible responses were the following: 1 (*very easy*), 2 (*easy*), 3 (*neither easy nor difficult*), 4 (*difficult*), and 5 (*very difficult*). Perceived success in work life, personal life, and relationships with spouse/partner and children were measured with single items following the stem, “All in all, how successful do you feel in each of the following.” The items were the following: (a) your work life, (b) your personal life, (c) your relationship with your spouse/partner, and (d) your relationship(s) with your child(ren). Each item was rated on a 7-point Likert scale ranging from 1 (*extremely unsuccessful*) to 7 (*extremely successful*). A 7-point scale was used instead of the typical 5-point scale to achieve greater variability. Emotionally healthy workplace was measured by reverse coding the item: “IBM is a psychologically and emotionally healthy place to work.” The items were the following: 1 (*strongly agree*), 2 (*agree*), 3 (*neither agree nor disagree*), 4 (*disagree*), and 5 (*strongly disagree*).

*Control variables.* Age, gender, dual earner status, and job level were included as control variables because they have been shown to influence the work–family outcomes assessed in this study (see Crossfield, Kinman, & Jones, 2005; Frone, 2003; Greenhaus, Collins, & Shaw, 2003).

## Plan of Analysis

We first regressed each of the dependent variables (work–family conflict, the perception of success in work life, personal life, relationship with spouse/partner, relationship with children, and perception of the workplace being emotionally healthy) on work hours and three control variables (gender, age, and dual earner status; Step 1). To test our first hypothesis for mediation, we added frequency of work interference with dinnertime to the model as an independent variable for

each of the dependent variables (Step 2) and compared the Betas for work hours in Step 1 and Step 2. By definition, full mediation requires the Beta for work hours to change from statistical significance in Step 1 to statistical insignificance in Step 2 (Baron & Kenny, 1986). To test our second hypothesis, we added the interactive term of work hours by work interference with dinnertime to the regression equation to see if the interaction was significant, evidence for moderation of the relationship between work hours and the outcomes of work-family conflict, success in work life, personal life, relationships with spouse/partner and children, and the perception of an emotionally healthy workplace.

## RESULTS

Using data from an IBM work-life survey of employees in the United States with dependent children younger than the age of 18 ( $N = 1,580$ ), we evaluated whether work interference with dinnertime mediated and moderated the relationship between work hours and the following outcomes: perception of work-family conflict, success in work life, personal life, relationship with spouse/partner, relationship(s) with children, and the workplace being emotionally healthy. Each dependent variable was regressed on work hours and the control variables of gender, age, dual earner status, and job level.

Means, standard deviations, and correlations among the study variables are found in Table 1. The frequency of work interference with dinnertime was positively and significantly ( $p < .001$ ) related to work hours ( $r = .526$ ) and work-family conflict ( $r = .413$ ) and negatively related to perceived success in personal life ( $r = -.244$ ), relationship with spouse/partner ( $r = -.131$ ), relationship(s) with child ( $r = -.206$ ), and the perception of an emotionally healthy workplace ( $r = -.232$ ). Frequency of work interference with dinnertime was not significantly related to perceived work success.

The results generally supported Hypothesis 1 (see Table 2). After controlling for gender, age, dual earner status, and job level, we found that work interference with dinnertime fully mediated the relationship between work hours and perceived success in personal life in Step 1 analysis,  $\beta = -.148$ ,  $p < .001$  and Step 2 analysis resulted in  $\beta = -.044$  *ns*; perceived success in relationship with spouse/partner Step 1,  $\beta = -.060$ ,  $p < .05$  and Step 2,  $\beta = .012$  *ns*; perceived success in relationship(s) with child(ren) Step 1,  $\beta = -.097$ ,  $p < .01$  and Step 2,  $\beta = -.004$  *ns*; and the perception of an emotionally healthy workplace Step 1,  $\beta = -.119$ ,  $p < .05$  and Step 2,  $\beta = -.005$  *ns*. Work interference with dinnertime partially mediated the relationship between work hours and work-family conflict. The strength of the significant positive relationship between work hours and work-family conflict (Step 1:  $\beta = .305$ ) was reduced when work interference with dinnertime was added to the regression (Step 2:  $\beta = .113$ ). There was no evidence that dinnertime mediated the relationship between work hours and perceived success in work life (Step 1:  $\beta = .109$ ,  $p < .001$ ; Step 2:  $\beta = .149$ ,  $p < .001$ ). It is interesting to note that in Step 2, work interference with dinnertime was significantly and negatively associated with perceived success in work life ( $\beta = -.079$ ,  $p < .05$ ).

There was partial support for Hypothesis 2. We added the interaction of frequency of work interference with dinnertime to the regression equations for each of the dependent variables. After controlling for gender, age, and dual earner

**TABLE 1: Means, Standard Deviations, and Correlations Among Study Variables**

	M	SD	1	2	3	4	5	6	7
1. Work interference with dinnertime (1 = low, 3 = high)	2.08	.76							
2. Work hours (hours per week)	50.19	10.51	.526*						
3. Work–family conflict (1 = low, 5 = high)	3.19	1.00	.413*	.263*					
4. Work success (1 = low, 7 = high)	5.03	1.00	-.021	.099*	-.148*				
5. Life success (1 = low, 7 = high)	5.10	1.05	-.244*	-.159*	-.339*	.308*			
6. Spouse success (1 = low, 7 = high)	5.30	1.26	-.131*	-.034*	-.247*	.204*	.651*		
7. Child success (1 = low, 7 = high)	5.51	1.06	-.206*	-.136*	-.263*	.181*	.614*	.519*	
8. Emotionally healthy workplace (1 = low, 5 = high)	3.26	1.07	-.232*	-.122*	-.329*	.383*	.262*	.153*	.210*

NOTE:  $N = 1,580$ . \* $p < .001$ .

status, we found that adding the interaction of work interference with dinnertime and work hours was significantly related to work–family conflict ( $\beta = -.181$ ,  $p < .05$ ) and perceived success in life ( $\beta = .108$ ,  $p < .05$ ). This is evidence that work interference with dinnertime moderates the relationship between work hours and these two dependent variables. There was no evidence of a moderating effect for work interference with dinnertime in the relationships between work hours and perceived success in work life, relationship with spouse/partner and children, or perception of an emotionally healthy workplace.

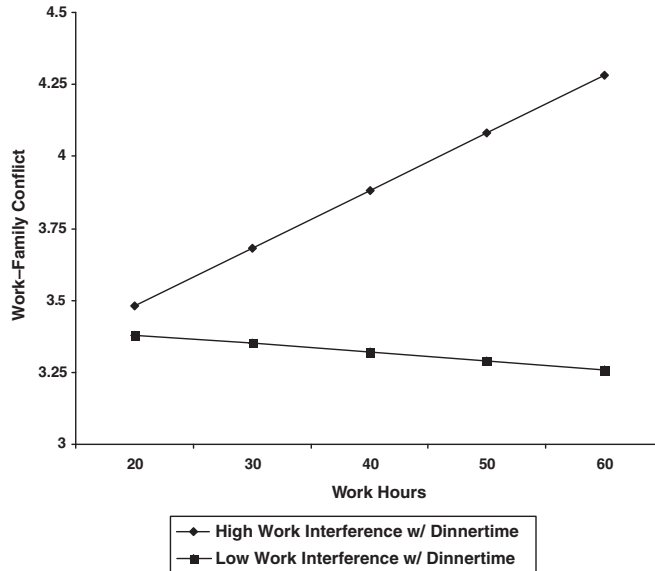
The strongest interaction was that predicting work–family conflict (see Figure 1). The interaction was graphed by splitting the sample into a low work interference with dinnertime and a high work interference with dinnertime group. The low work interference with dinnertime group reported missing less than two dinners because of work during the past 6 months ( $n = 372$ ). The high work interference with dinnertime group reported missing at least 30 dinners because of work during the past 6 months ( $n = 385$ ). We ran the regression using these groups after controlling for gender, age, and dual earner status, then plotted the predicted levels of work–family conflict for individuals in each group at different numbers of work hours.

The graph (see Figure 1) shows that work–family conflict increased significantly as work hours increased for the high work interference with dinnertime group ( $\beta = .020$ ,  $p < .001$ ) but not for the low interference with group ( $\beta = -.003$  ns). This suggests that work hours are associated with higher levels of work–family conflict specifically when work interferes with dinnertime. It should be noted, as well, that the overall level of expected work–family conflict was lower among those with low frequency of work interference with dinnertime. This may be evidence of the efficacy of dinnertime as an adaptive strategy to reduce work–family conflict, or it may mean that those who value dinnertime have their priorities in reasonable order and do not expect work–family conflict.

**TABLE 2: Regression Results**

$\beta$	WF Conflict		Work Success		Life Success		Spouse Success		Child Success		Emotionally Healthy Workplace	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
	Gender	-.039	-.061*	-.045	-.040	-.058	-.046	.009	.017	-.028	-.018	-.026
Age	-.102***	-.087	-.020	-.023	.019	.010	.014	.007	-.008	-.017	-.048	-.056
Dual earner status	.043	.064*	-.034	-.038	-.006	-.018	.005	-.003	.013	.003	-.164*	-.076*
Work hours	.305***	.113***	.109***	.149***	-.148***	-.044	-.060*	.012	-.097***	-.004	-.019***	.005
Work interference with dinner time												
$R^2$	.089	.195	.013	.017	.028	.059	.003	.018	.013	.037	.021	.058
$\Delta R^2$		.106		.004		.031		.015		.020		.027

NOTE: N = 1,580; WF = work-family. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



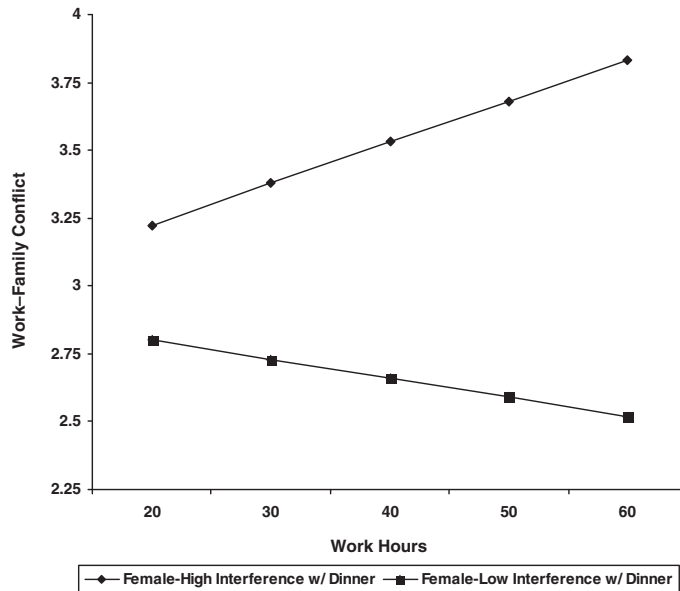
**Figure 1: Interaction Between Work Hours and Work Interference With Dinnertime in Predicting Work-Family Conflict**

The hypothesized difference across genders in the relationship between missing dinnertime and work, personal, and family outcomes was also confirmed. Gender proved to significantly interact with dinnertime and work hours in predicting work-family conflict. As shown in Figure 2, the slope differed between the low ( $\beta = -.007$  *ns*) and high ( $\beta = .015$ ,  $p < .05$ ) work interference with dinnertime groups for the women, demonstrating moderation of the relationship between work hours and work-family conflict. The same analyses run for men did not show a moderating effect. The slope did not differ between the low ( $\beta = .022$ ,  $p < .001$ ) the high ( $\beta = .024$ ,  $p < .001$ ) work interference with dinnertime groups for the men.

## DISCUSSION

The purpose of this study was to evaluate whether work interference with dinnertime mediated and moderated the relationship between work hours and the outcomes of perception of work-family conflict, success in work life, personal life, relationship with spouse/partner, relationships with children, and the workplace being emotionally healthy. The study also analyzed whether moderating effects would be more pronounced for women.

The results of our analysis indicated that longer work hours are associated with greater work-family conflict, lower perception of success in personal life, relationship with spouse/partner, relationship with children, and lower perception of the workplace being emotionally healthy. But the analyses also indicated that the negative effects of long work hours on the perception of success in personal life, relationship with spouse/partner, relationship with children, and the workplace



**Figure 2: Interaction Between Work Hours and Work Interference With Dinnertime Split by Gender in Predicting Work-Family Conflict**

being emotionally healthy were fully mediated by work interference with dinnertime. Furthermore, the significant relationship between work hours and increased work-family conflict was moderated, or attenuated, when work did not interfere with dinnertime. This was particularly true for women in the sample. The increased work-family conflict associated with longer work hours was significantly reduced for women who did not miss dinnertime because of work.

These findings are evidence that dinnertime is an important factor in understanding the work-family interface. For employees in the United States, especially those required to work long hours, missing dinnertime because of work may enhance the negative effects of those long work hours. On the other hand, these data suggest that creating the space for dinnertime, even in the face of long hours on the job, may reduce some of the negative impact that work demands can have on work, personal, and family outcomes.

It is noteworthy that although longer work hours predicted significantly greater perception of success in work life, work interference with dinnertime predicted lower perception of success in work life. It is reasonable that those who spend more time working are likely to feel that the added effort is furthering their success in their job. These findings suggest that offering a way for employees to work long hours without missing regular dinnertime would be beneficial. Perhaps offering flexibility in when and where (e.g., flextime and telecommuting) might enable employees to craft their lives in such a way that dinnertime is protected in the face of high work demands.

An additionally important finding is that only women benefited from the attenuating effect of *not* missing dinnertime on the relationship between work hours and work-family conflict. Controlling for gender, dinnertime reduced the strength

of negative relationship between work hours and work–family conflict and perceived success in personal life. But when the sample was divided by gender, women alone demonstrated this effect. This finding may support the perspective that women feel a greater responsibility for dinnertime and thus experience greater benefits when they fulfill a responsibility that is consistent with their perceived role. Having to miss dinnertime because of work may lead to an enhanced sense of conflict between their perceived work and family roles. The finding might also support the conclusion by Eisenberg et al. (2004) that girls, and thus perhaps women in general, may be more sensitive to the nuances of family interactions, and thus experience more protective benefits from the frequency of family meals. Whatever the mechanism through which women experience greater benefits, the analysis indicates that women experienced decreased work–family conflict in not missing dinner.

### Limitations

The limitation of this study centers on the use of single item measures. The use of single item measures for both the dependent and independent variables only allows face validity to be determined, leaving issues relating to reliability unaddressed. In most cases, it is evident that single item measures are not capturing the full complexity of the concepts they have set out to measure. For example, the responses to the “family outcome” measures are subjective and may be assessing perceived self-efficacy or self-esteem rather than direct outcomes. Responses may also reflect underlying dispositional factors and a reporting bias rather than a true relationship between work hours and outcomes. Ideally, established work–family measurement scales would have been used for these variables. But limitations placed on the number of questions by the corporate sponsor to reduce the amount of time participants spent away from their work necessitated the use of single item measures. This kind of trade-off was necessary to gain access to corporate data (Hill et al., 2004).

Furthermore, the single item measure reflecting how many times in the last 6 months dinnertime was missed as a result of work limits the conclusions that can be drawn. It is possible that dinnertime could have been missed for reasons other than work, and thus, the measure does not provide a good assessment of the frequency of family meals. In addition, because of the cultural norms associated with family dinnertime, it is easy to make assumptions regarding the experience of dinnertime for participants that may or may not be true. One might assume that individuals who had dinner were sitting down in the evening to a hot meal around their dining room table with all their family members present. However, “dinnertime” may refer to eating an omelette in a restaurant or a sandwich in the office with only some of the family members present. This makes it unclear as to whether “dinnertime” represents a routine family interaction or simply an episode of eating for participants. Clearly, individuals from different backgrounds are likely to have different meanings, experiences, and expectations for dinnertime. Further research that uses an instrument that provides more details and for which reliability and validity has been established is needed to more adequately explore these nuances.

Our measurement of dinnertime remains useful, however, because it allows an initial exploration of the relative impact of an individual’s ability to attend dinnertime on a number of outcome variables in the work and family domain. Future research that incorporates more detailed measures of dinnertime can provide

more insight as to why family meals have the impact they do and the pathways of those effects.

The final limitations of the study were the relatively low (43%) response rate and the fact that data were collected from a single employer. The relationships among work hours and a variety of work family outcomes may shift in relation to business settings, conditions, and policies, not to mention variation in job type and characteristics of the sample.

### **Implications and Applications**

Although dinnertime may be a highly valued activity and have many positive outcomes for individuals and families, in practice, it is often difficult to achieve. Most studies show that only about one third of children and adolescents eat dinner with their families every day (Gillman et al., 2000; Neumark-Sztainer, Story, Ackard, Moe, & Perry, 2000). The major barriers cited by adults for not having regular dinnertime are typically related to overscheduled calendars, busy lifestyles, and the challenges of balancing work, family, and children's activities. Families, and particularly women, may experience more success in having regular and frequent dinnertime, especially with their families, if they find their employers and community are supportive of such an endeavor.

Employers can make a number of accommodations to ensure that their employees can be home for dinner. For example, employers who allow flexibility in when and where work can be done enable their employees to participate in regular family dinnertime. Likewise, employers who provide access to the technology to work from home make attending family dinner more feasible. In addition, company training programs that encourage employees to take a break for a family dinnertime at home in the middle of demanding projects show support for families trying to eat together regularly. The more employers make such accommodations to enable their employees to participate in family dinner, the more likely it is that they will have satisfied workers and ameliorate the potentially negative impact of long work hours on individual and family outcomes. In this way, both employer and employee can benefit.

Community support for family dinnertime can take many forms. Family life educators and extension educators can develop resources that promote family dinnertime for a wide variety of end users. These resources could be used by small businesses, large corporations, and company health and wellness coordinators in addition to their more traditional end users such as community health and social service providers, media, and policy makers. These work and community contexts could support family dinnertime as an important priority not only by providing education on the benefits of family meals but by also providing the necessary planning, organization, and cooking skills to facilitate the attainment of more regular nutritious and healthy family meals.

### **Future Research**

This study explored whether work interference with dinnertime mediated and moderated the relationship between work hours and the outcomes of perception of work-family conflict, success in work life, personal life, relationship with spouse/partner, relationships with children, and the workplace being emotionally healthy.

The findings indicate that not missing dinnertime because of work can mediate the negative effect of long work hours on individuals and families. But it is difficult to pinpoint precisely what aspect of dinnertime produces this positive and protective function.

Further research is needed, particularly with regard to differences between men and women's experiences of family dinner. It may be that the mediating effect of not missing dinnertime between work hours and a variety of work outcomes is more a function of the characteristics of individuals and families who have regular family dinners. For example, individuals and families who have regular family dinners may be more likely to maintain other regular routines and rituals which indicate that the family itself is connected, has good adaptation skills, is stable and well organized, and overall, psychologically healthy (Fiese et al., 2002). Consequently, time spent in meals at home is likely to be associated with a more stable, organized family life, and therefore with children having fewer behavior problems (Hofferth & Sandberg, 2001). These family attributes suggest a type of resilience, competence, and efficacy that may better equip working parents to deal with higher levels of work-family conflict occasioned by long work hours in an adaptive manner.

The positive effect of family meals may also arise from the fact that the family gets together on a regular and predictable basis to connect. Thus, any routine or ritualized component of family life that facilitates time together could have the same kind of impact as regular dinnertime. Zabriskie and McCormick (2001) found that stable patterns of quality interaction (such as shared leisure) among family members can foster communication, individual and family identity, interpersonal relationships, and improve family cohesion and adaptability. The persistence of family mealtime as a predictor of positive behavioral and psychological outcomes in multiple statistical models suggests that "eating meals as a family has benefits for young people above and beyond their general sense of connection to family members" (Eisenberg et al., 2004, p. 795).

It is also possible that many potential family issues are resolved when the majority of family members participate regularly in the dinnertime meal. Family meals have the unique potential to foster communication that enables direct exchange of information as well as communication that focuses on problem solving, discussion of sensitive topics, and the affective climate of the home (Fiese, Foley, & Spagnola, 2006). Future research of the mechanisms by which dinnertime can create positive outcomes for families and individuals, particularly women, will facilitate understanding of why and how dinnertime has a positive impact on work and family life.

## CONCLUSION

These findings provide strong support for the potential role of dinnertime in reducing the negative personal, family, and work outcomes associated with long work hours and conflict in the work-family interface. Identifying dinnertime as an adaptive individual and family strategy for increasing work-family fit is an innovative idea because it not only bridges the traditionally separate research domains of family meals and the work-family interface but also extends existing research in both substantive areas.

Additionally, the mediating role of work not interfering with something considered by some as mundane as dinnertime contributes to understanding strategies that both work organizations and individual employees can use to decrease work-family conflict. The findings also expand the range of positive outcomes associated with dinnertime to the work-family interface and illuminate how men and women may experience the work-family interface and their associated outcomes differently.

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