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UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN EXAMINATION OF THE RELATIONSHIPS BETWEEN SELECT PSYCHOLOGICAL DIMENSIONS AND WORK-TO-FAMILY AND FAMILY-TO-WORK ROLE CONFLICT IN MEN AND WOMEN

A Dissertation

SUBMITTED TO THE GRADUATE FACULTY

In partial fulfillment of the requirement for the

Degree of

Doctor of Philosophy

By

Kathleen Malchar Laster
Norman, Oklahoma
2002

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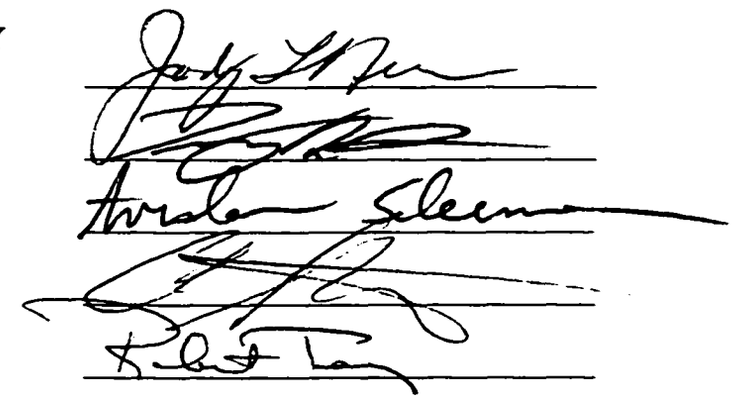
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A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY



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Abstract

This study examined relationships between select psychological dimensions and work-to-family and family-to-work role conflict in men and women. Psychological dimensions included in this study were health, self-esteem, perceived stress, guilt, trait anger, anger expression-in (suppressed anger), anger expression-out (expressed anger), and depression. The mediating and moderating roles of sex role egalitarian attitude and gender were also examined. Data were obtained from a corporate sample of 221 employed adults (144 men, 77 women). Due to the multivariate nature of the data, a canonical correlation analytic strategy was used, followed by a series of multiple regression analyses. Results supported previous empirical evidence that both types of work-family conflict are positively related to psychological distress. Results indicated that family-to-work conflict may have a slightly stronger relationship with psychological distress accounting for 32% of the variance, while work-to-family conflict accounted for 28% of the variance. Overall, both types of work-family conflict accounted for 38% of the variance, indicating the two types of conflict shared substantial variance. Both types of conflict were also found to relate positively to a broad range of psychological variables, with health, perceived stress, and depression among the strongest relationships. Family-to-work conflict significantly predicted 7 of 8 psychological variables, whereas work-to-family conflict only predicted 4. Neither gender nor sex role egalitarian attitude were found to have a significant effect on the relationships of work-to-family and family-to-work conflict with psychological distress in this sample. Potential implications of these results for organizations are discussed.

Introduction

Interest in the impact of work and family role conflict on men's and women's well-being has catapulted in recent decades. Research that began in the 1960's has evolved to prolific proportions and currently spans across a diverse range of topics and disciplines (Frone, Yardley, & Markel, 1997; Lilly, Pitt-Catsouphes, & Googins, 1997). This surge of interest has not been misplaced, since research has revealed that individuals and organizations alike often suffer from the effects of this conflict as men and women struggle to balance the increasingly competing demands of work and family roles (Duxbury & Higgins, 1994; Frone, Russell, & Cooper, 1997). Changing demographics have been largely responsible for these increases in demands as men's and women's roles and values have shifted considerably over the past several decades. According to Barnett and Hyde (2001), "One of the most dramatic markers of the late 20th and early 21st centuries is the astonishingly fast pace of change in the work and family roles of women and men in the United States" (p.781). Traditional work models that depended on the man focusing exclusively on breadwinning, and the woman concentrating solely on the home, no longer apply to the majority of families (Bond, Galinsky, & Swanberg, 1998). Significant increases in women's participation in the workforce (projected to comprise 48% of the workforce by 2008, up from 33% in 1950), trends away from the traditional nuclear family model, and growing concerns about elder care due to longer life expectancies, have placed unprecedented stressors on men and women in today's society (Collins, Hollander, Koffman, Reeve, & Seidler, 1997; Frone & Yardley, 1996; U.S. Department of Labor Women's Bureau, 2000). For the individual, the costs of these struggles may include increased stress and physical health risks (Frone, Russell, &

Barnes, 1996), diminished performance of parenting roles (Swanson, 1992) and paid-worker roles (Rodgers & Rodger, 1989), reduced life satisfaction (Bedeian, Burke, & Moffet, 1988; Rice, Frone, & McFarlin, 1992), and poorer mental health (Frone, Russell, et al., 1997). Organizations feel the impact in higher health costs, lower productivity, and turnover and retention concerns as decreasing labor markets deal with the realities of the aging "baby boomer" cohort (Bacharach, Bamberger, & Conley, 1991; Duxbury & Higgins, 1994). Also, the extent to which organizations can accommodate women's and men's family lives may make the difference in their competitive ability to attract the most talented workers, especially in light of reported shifts in the younger workers' values away from the "workaholic mentality" (Smith & Clurman, 1997). Given the widespread nature of work and family conflict, growing interest in studying its impact on well-being comes as no surprise. Research focused on better understanding the construct of work-family conflict, and its potentially deleterious psychological effects on men and women, could make an important contribution to the development of remedies aimed at improving quality of life, thus benefiting individuals and organizations alike.

Work-Family Conflict Construct

The construct of work-family conflict has been evolving over the past several decades. The construct was initially conceptualized based upon early theories of traditional role conflict. Kahn, Wolfe, Quinne, Snoek, and Rosenthal (1964) defined role conflict as the "simultaneous occurrence of two or more sets of pressures such that compliance with one would make more difficult compliance with the other" (p. 19). Work-family conflict is a form of interrole conflict in which the role demands associated with the work or family domains are made more difficult by role participation in the other

domain (Greenhaus & Beutell, 1985). According to Greenhaus and Beutall (1985), any role characteristic affecting a person's time involvement, strain, or behavior within a role can produce conflict between that role and another role. This potentially results in three major forms of work-family conflict: (a) time-based conflict (time expended in one role impedes performance in another role), (b) strain-based conflict (strain created in one role affects performance in another role), and (c) behavior-based conflict (role behaviors required in one sphere are incompatible with role behaviors in another). Greenhaus and Beutall identified these forms of conflict based upon a thorough review of the empirical research regarding antecedents, or sources, of work-family conflict. This work was an important contribution, as it provided one of the earliest models of work-family role conflict. Since that time, more contemporary, integrated, conceptual models of the work-family interface have been developed that not only take into consideration important antecedents, but also outcomes of work-family conflict (Frone, Russell, & Cooper, 1992b; Frone, Yardley, et al., 1997). Some of the more prevalent antecedents and outcomes identified in the literature include role commitment, role salience and satisfaction (Baruch & Barnett, 1986; Cleary & Mechanic, 1983; Duxbury & Higgins, 1991; Greenberger & O'Neil, 1993; Kandel, Davies, & Raveis, 1985; Luchetta, 1995; O'Neil & Greenberger, 1995; Pleck, 1985; Thoits, 1991), parenting (Barnett & Baruch, 1985; Cook & Rousseau, 1984; Lewis & Cooper, 1987; Swanson, 1992; Swanson, Power & Simpson, 1998; Swanson & Power, 1999), marriage and spousal support (Barnett & Marshall, 1991; Burley, 1994; Cooke & Rousseau, 1984; Greenberger & O'Neil, 1993; O'Neil & Greenberger, 1995; Phillips-Miller, Campbell, & Morrison, 2000; Simon, 1995); and supervisory and company support (Bowen, 1988; Galinsky & Stein, 1990;

Greenberger & O'Neil, 1993; Hughes & Galinsky, 1988; Raskin, Maranzano, Tolle, & Pannozzo, 1998; Thomas & Ganster, 1995; Warren & Johnson, 1995).

Over time, work-family conflict has evolved from being viewed as a global construct to being viewed as two related, but distinct forms of interrole conflict: family-to-work conflict (occurs when family demands interfere with fulfilling work-related obligations) and work-to-family conflict (occurs when work demands interfere with fulfilling family-related obligations) (Duxbury & Higgins, 1994; Eagle, Miles, & Icenogle, 1997; Frone, Russell, & Cooper, 1992b, 1997; Gutek, Searle, & Kelpa, 1991; Kossek & Ozeki, 1998; Netemeyer, Boles & McMurrian, 1996). The importance of viewing work-family conflict from a bi-directional standpoint was first made explicit by Greenhaus and Beutall (1985). Frone tested and confirmed that work-to-family conflict and family-to-work conflict were indeed two separate constructs by establishing that there was a positive, reciprocal relationship between the two, and that each type of conflict was associated with unique antecedent conditions and outcomes (Frone et al., 1992b). As the construct of work-family conflict has become more refined and the bi-directionality of it has become clear, more studies have begun examining both work-to-family and family-to-work conflict, rather than treating them as a single construct (Duxbury, Higgins, & Mills, 1992; Frone et al., 1992b; Gutek et al., 1991).

Not surprisingly, more research has been conducted on work-to-family conflict than family-to-work conflict (Netemeyer et al., 1996). Most early measures of work-family conflict focused on work interference with family (Greenhaus & Beutell, 1985). The majority of empirical findings have tended to portray family participation as adversely influenced by work-related concerns (Burke & Greenglass, 1987 as cited in

Eagle et al., 1997). Some of the more salient, dysfunctional influences of work demands on family life have included increased family distress and depression (Frone et al., 1992a), decreased global well-being (Pleck, 1985) and spousal well-being (Burke, Weir, & DuWors, 1980 as cited in Eagle et al., 1997), increased marital tension (Brett, Stroh, & Reilly, 1992 as cited in Eagle et al., 1997) and decreased family satisfaction (Kopelman, Greenhaus, & Connolly, 1983). Eagle et al. (1997) suggested that these results could be due to "people's inclination to allow work to consume a disproportionate amount of their energies and attention in their pursuit to have it all" (p.180).

In a classic paper written on work-family dynamics, Pleck (1977) introduced the notion of asymmetrically permeable boundaries between work and family life domains. Pleck (1977) suggested that boundaries between work and family were asymmetrically permeable when the demands from one domain intruded into the other domain with unequal frequency (Pleck, 1977). Pleck hypothesized that, among women, family demands would intrude into the work role more than work demands would intrude into the family role because they assumed primary responsibility for managing home-related demands and crises. In contrast, Pleck posited that, among men, work demands would intrude into the family role, more than the reverse, because they were more likely than women to take work home and more likely to use family time to recuperate from the stresses they face in the workplace. Numerous empirical studies have been conducted to test Pleck's hypotheses regarding asymmetrically permeable boundaries and gender differences. The overriding pattern of results has shown that work-to-family conflict is more prevalent than family-to-work conflict, suggesting that family boundaries are more permeable than work boundaries. Pleck's hypothesis that gender differences exist,

however, has not generally been supported in empirical studies (Eagle et al., 1997; Frone et al., 1992a; Gutek et al., 1991; Hall & Richter, 1988; Jones & Fletcher, 1993; Wiley, 1987).

Measurement of Work-Family Conflict

Despite abundant research in the area of work-family conflict, serious ambiguity has historically existed regarding the nature of the construct, its measurement, and its relation to other variables (Allen, Herst, Bruck, & Sutton, 2000). For some time, researchers have consistently cited the lack of psychometrically sound work-family instruments, utilized in their studies, as limitations that potentially made questionable the validity of their findings. In fact, in a recent meta-analysis of work-family conflict, Kossek and Ozeki (1998) suggested that inconsistencies found in work-family conflict measures often accounted for discrepancies in research outcomes.

In 1996, two separate noteworthy efforts at developing a work-family conflict measure were published. Stephens and Sommers (1996) developed a brief 14-item work-to-family conflict instrument that was the first to include in its item development the theoretically and previously empirically validated notion of the three major forms of work-family conflict: time-, strain-, and behavior-based conflict (Greenhaus & Beutall, 1985). Their instrument was found to have high internal consistency and to have passed a thorough examination of its structure and validity through confirmatory analyses. The second major effort was conducted by Netemeyer et al. (1996) and produced the first psychometrically sound, bi-directional measure of work-family conflict. This instrument was a short, 10-item self-report measure that yielded two scales: work-to-family conflict and family-to-work conflict. The measure was scrutinized rigorously with respect to

construct validity by comparing work-family conflict items to a number of on- and off-job constructs. This measure represented an improvement over past measures by firmly establishing construct validity of the instrument, as well as adequate content validity and internal consistency. The developers reported that their measure consistently demonstrated stronger correlations with job satisfaction, organizational commitment, job tension, and life satisfaction. Although the authors incorporated aspects of time- and strain-based conflict into their items, they failed to include items tapping behavior-based conflict in their instrument. Thus, the instrument has been criticized for its failure to produce a full range of multidimensional assessments (time-, strain-, and behavior-based conflict) of work-to-family and family-to-work conflict.

Carlson, Kacmar, and Williams (2000) answered the call for a comprehensive multidimensional measure of work-family conflict. These researchers developed an 18-item, self-report, work-family conflict measure yielding six dimensional and two global scales. The six dimensions of conflict measured included the combination of three forms of work-family conflict (time, strain, and behavior) and two directions of work-family conflict (work interference with family and family interference with work). The validity and reliability of the instrument was supported over three studies using five different samples. As acknowledged by Carlson et al. (2000), the scale needs additional validation across different organizations and occupations to further examine the generalizability of scores derived from its use. Despite these limitations, however, in their critical review of work-family conflict measures, Allen et al. (2000) referred to this new multidimensional instrument as "most promising" (p. 286).

Work-Family Conflict and Psychological Distress

Research examining the relationship between work-family conflict and psychological distress has increased substantially during the past decade. Work-family conflict has been linked to heightened psychological distress in numerous studies (Barling & MacEwen, 1992; Frone et al., 1996; Frone, Russell & Cooper, 1991, 1992a; Hughes & Galinsky, 1994; Klitzman, House, Israel, & Mero, 1990; MacEwen & Barling, 1994; O'Driscoll, Ilgen, & Hildreth, 1992; Parasuaman, Greenhaus, & Granrose, 1992). Early research simply examined the relationship of work-to-family conflict (Bedeian et al., 1988; Burke, 1989) or overall work-family conflict (Bromet, Dew, & Parkinson, 1990; Rice et al., 1992) to various health-related outcomes. In contrast, more recent research has begun to focus on the main-effect relations of both types of work-family conflict (work-to-family and family-to-work) to psychological health (Frone et al., 1996). In four out of six studies reviewed on this topic, some form of psychological distress was found to be positively related to both types of work-family conflict, providing a fairly consistent pattern of results (Frone et al, 1996; Hughes & Galinsky, 1994; Klitzman et al., 1990; MacEwen & Barling, 1994; O'Driscoll et al., 1992; Wiley, 1987). Of the two remaining studies, one failed to reveal a significant relationship between either type of conflict and overall life satisfaction (Wiley, 1987), while the other study revealed that only family-to-work conflict was positively related to depression, and neither type of conflict was related to physical symptoms (Klitzman et al., 1990).

Results from a four-year longitudinal study, conducted by Frone, Russell, et al. (1997), suggested that family-to-work conflict had a greater impact on individuals' physical and mental health, over time, than work-to-family conflict (although the authors

warrant caution in making this assertion conclusively without further study). In a later, unprecedented study by Frone (2000), the relationships between both types of work-family conflict and more severe psychiatric disorders, which might impair individuals' ability to function adequately at work or at home, were assessed. Results of this study suggested that both work-to-family and family-to-work conflict were positively related to having mood, anxiety, and substance dependence disorders. However, once again, family-to-work conflict was found to be more strongly related to psychiatric disorders than work-to-family conflict, by a significant margin. Specifically, individuals who often experienced work-to-family conflict were 3.13 times more likely to have a mood disorder, 2.45 times more likely to have an anxiety disorder, and 1.99 times more likely to have a substance dependence disorder, than were individuals with no work-to-family conflict. Individuals who often experienced family-to-work conflict were 29.66 times more likely to have a mood disorder, 9.49 times more likely to have an anxiety disorder, and 11.36 times more likely to have a substance dependence disorder, than were individuals with no family-to-work conflict.

Frone (2000) suggested that these findings might be explained by differences in attributions of responsibility for the cause of work-family conflict. Individuals may attribute the responsibility for work-to-family conflict to external causes such as the demands and problems imposed by their work organizations. In contrast, individuals may attribute responsibility for family-to-work conflict to internal causes. The intrusion of family demands into individuals' performance in the workplace may be viewed as resulting from their own inability to effectively manage their family lives. Such differences in attributions of responsibility or blame may explain the difference in the

relative strength of the association between the two types of work-family conflict and mental health. Frone (2000) did cite, however, as a limitation to his study, the use of a two-item measure of each type of work-family conflict that did not have established psychometric properties.

It is important to note that, although empirical evidence clearly suggests that family boundaries are more permeable than work boundaries and that work-to-family conflict is more prevalent than family-to-work conflict, recent preliminary evidence indicates that family-to-work conflict appears to have a greater impact on individuals' psychological well-being. It may be that the prevalence of work-to-family conflict is a function of early measures, unilaterally focusing on work-to-family conflict. Given recent progress in the development of more sophisticated bi-directional measures, coupled with preliminary family-to-work conflict study outcomes, further study of family-to-work conflict and its relationship to psychological distress is certainly warranted.

Gender Issues

A significant body of the work-family conflict literature has been devoted to gender issues. In a comprehensive review of the literature, Higgins, Duxbury, and Lee (1994) cited numerous studies that have linked gender and work-family conflict (Barnett & Baruch, 1987; Duxbury et al., 1992; Gutek et al., 1991; Jick & Mitz, 1985; Keith & Schaefer, 1980, 1991; LaCroix & Haynes, 1987; Pleck, 1985; Skinner, 1980; Voydanoff, 1988). Gender may affect one's ability to balance work and family responsibilities in several ways. Higgins et al. (1994) asserted that not only may it act as a direct predictor of the sources of conflict but it may also act as a moderator that affects how the conflict is perceived, what coping skills are called upon, and how the conflict is manifested (Barnett

& Baruch, 1987; Duxbury et al., 1992; Gutek et al., 1991; Jick & Mitz, 1985; Pleck, 1985; Schnittger & Bird, 1990; Voydanoff, 1988). Swanson (1992) cited, as one of the most important trends in the work-family conflict literature, the notable progress being made toward thinking of work-family conflict as a concern for both men and women.

The focus on gender initially centered on women, spawning a longstanding debate over whether the "scarcity/overload hypothesis" or the "expansion hypothesis" better accounted for work-family conflict in women. The "scarcity hypothesis" proposed that the addition of workplace demands to women's already significant role in the home may increase their vulnerability to role strain (Barnett & Baruch, 1987). According to this view, role demands of work and home should be viewed as additive, with occupation of multiple roles leading to conflicts, stress, and strain, due to "overload" (Greenhaus & Parasuraman, 1986; Sekaran, 1983). The scarcity/overload hypothesis has been one of the most common approaches described in the literature for explaining the competitive relationship between work and home demands, and has received some empirical support through a number of studies (Quinn & Staines, 1979; Cooke & Rousseau, 1984; Jagacinski, LeBold, & Linden, 1987; Barnett, Marshall, & Sayer, 1992; Hughes & Galinsky, 1994).

On the other hand, a substantial accumulation of empirical evidence disputes the scarcity/overload hypothesis. Several theorists have argued that the benefits of multiple-role occupancy may far outweigh tensions due to overload and conflict (Marks, 1977; Sieber, 1974; Verbrugge, 1986; Thoits, 1983). This position has been based on the competing hypothesis about human energy, called the "expansion hypothesis" (Barnett & Baruch, 1987). Marks (1977) and Sieber (1974), for example, have suggested that

multiple role involvements may expand, rather than constrict, an individual's resources, rewards, energy, commitment, sense of ego gratification, and security, resulting in enhanced physical and psychological well-being. Greenglass (1995) posited that occupying multiple roles increased potential sources of privilege, social status, and social identity, thereby enhancing self-esteem. It has been noted that "more support for the enhancement hypothesis has accumulated over the years" (Greenberger & O'Neil, 1993, p. 181) as evidenced by a number of cross-sectional and longitudinal studies (Barnett, 1994; Baruch & Barnett, 1986; Collin et al, 1997; Gore & Mangione, 1983; LaCroix & Haynes, 1987; Long & Porter, 1984; Stewart & Salt, 1981; Thoits, 1983; Verbrugge, 1986; Waldron & Jacobs, 1989; Wiersma, 1990).

Most recently, Barnett and Hyde (2001) have published a new "expansionist theory" that is based largely upon empirical evidence supporting the benefits of multiple roles. These authors suggested that a new theory, based upon today's realities, was needed to fill what they called a "theoretical gap" caused by a lack of empirical evidence supporting the underlying premises of classical theories of gender and multiple roles (e.g., functionalist, psychoanalytic, and sociobiological/evolutionary psychology theories). Barnett and Hyde reported that these classical theories were based upon presumed large gender differences in personality, abilities, and social behaviors that justified the "highly gender-segregated division of labor in the family and the workplace" (p. 784). They argued that empirical evidence has failed to support the claims of significant gender differences, and offered an inductive theory of gender, work, and family that includes four empirically derived and testable basic principles. The first three principles focused around issues related to the benefits of multiple roles, and the fourth

suggested that psychological gender differences are not so large that men and women need to be forced into significantly diverse roles. Clearly, additional research in this area is warranted.

In light of the scarcity/overload versus expansion hypothesis debate, however, it is important to note that Barnett and Hyde suggested there are conditions that moderate the effects of multiple roles. According to Voydanoff and Donnelly (1999), there may be upper limits to the benefits of multiple roles, e.g., when the number of roles becomes too great or when the demands of one role are excessive, overload may occur. In this context, the enhancement and scarcity hypotheses may not necessarily be mutually exclusive.

Over the past several years, studies of the relationship between gender and work-family conflict have begun to focus more on men (Barnett & Marshall, 1991; Barnett, Marshall, & Pleck, 1995; Crosby, 1987; Hood, 1993). Two general waves of thought have emerged in the literature. According to the first wave of thought, men treat their job roles as central to their psychological well-being (Erickson, 1980; Levinson, 1978) and family roles as peripheral (Barnett et al., 1995). Work is viewed as men's primary family role; providing for their families financially is considered their major contribution (Moen, 1992). The second wave of thought that has emerged suggests that family roles are critical to men's mental health (Barnett et al., 1995; Farrell & Rosenberg, 1981; Pleck, 1985; Veroff, Douvan, & Kulka, 1981). Stueve, O'Donnell, and Lein (1980) pointed out that, just as there are potentially negative financial and security consequences for women who under-invest in paid employment, there may be negative consequences for men who under-invest in family life. Such may emerge in the form of less contact with, and social support from, their adult children. Pleck (1985) found that husbands, as well as wives,

experienced their family roles as far more psychologically significant than their paid work roles. Thus, these studies suggest that the broadly held view, that men's psychological health is principally determined by their work roles, is deficient. Further, the quality of men's family roles contributes as strongly to their mental health as do their work roles.

Despite cultural and value shifts in men's family and work roles, the preponderance of empirical evidence indicates that women experience higher levels of work-family conflict, in their attempts to balance work and family demands, than do men (Duxbury & Higgins, 1991, 1994; Gutek et al., 1991; Voydanoff, 1988). Interestingly, however, studies measuring gender differences in psychological distress, as it relates to work-family conflict, have yielded mixed results. Frone et al. (1996) identified what appeared to be the only two studies examining the relationships between gender differences in a bi-directional context (family-to-work conflict and work-to-family conflict) and psychological distress (Frone et al., 1992b; MacEwen & Barling, 1994). Frone et al. (1992b) found that the magnitude of the indirect influence of both types of work-family conflict on depression did not differ across samples of men and women. MacEwen and Barling (1994) found evidence of gender differences in the magnitude of the relationships of both types of work-family conflict to depression and anxiety. Their results revealed that work-to-family conflict was more strongly related to both depression and anxiety among women, than among men, but that family-to-work conflict was more strongly related to the same two outcomes among men, than among women. Frone et al. (1996) attributed this inconsistency in findings to possible sampling error or the different nature of samples used in the two studies. Therefore, to provide a stronger test of

gender's differential moderating effect, Frone et al. (1996) conducted a three-wave study using two large community samples. Although the authors reported no significant gender differences in the magnitude of the relationship between work-family conflict and health-related outcomes based on overall findings, results of the third wave study revealed one exception. These particular results reflected that the relationship between work-to-family conflict and depression was stronger among men than among women.

Carlson et al. (2000) have suggested that the way in which conflict was measured may explain whether gender differences were found in past research studies (Eagle et al., 1997; Frone et al., 1992b; Pleck, 1977; Williams & Alliger, 1994). These authors further suggested that studying gender differences, from a multidimensional perspective, might provide important information about the strength and direction of various relationships related to gender and work-family conflict (Carlson et al., 2000). Additionally, many researchers have called for more sophisticated analyses of gender differences and similarities in outlining future research agendas (Lambert, 1990). It appears, therefore, that questions regarding the presence of gender differences in psychological distress experienced by men and women in relationship to work-to-family conflict and/or family-to-work conflict remain largely unanswered. More studies that utilize sound, bi-directional work-family conflict instruments, that are based on sufficient and relevant samples, and that specifically target psychological dimensions, will advance current knowledge in this area.

In a somewhat different vein related to gender questions, it is intriguing to speculate as to why some preliminary, although admittedly sparse, results have indicated that psychological distress and work-family conflict may have a stronger relationship

among men than women, despite reported higher levels of work-family conflict in women. The findings of these preliminary studies vary as to whether work-to-family conflict or family-to-work conflict is more highly associated with distress. As previously mentioned, MacEwen and Barling (1994) found a higher association between family-to-work conflict and psychological distress for men, whereas Frone et al.'s (1996) wave-three study linked work-to-family conflict with higher depression levels for men. Obviously, further investigation of these relationships is needed. Assuming that either type of conflict is found to relate consistently to higher levels of psychological distress in men, a couple of hypotheses could be generated to account for this phenomenon. First, men with more traditional sex role egalitarian attitudes may be more impacted by work-family conflict because pressure to spend time and energy away from their jobs tending to domestic or child care matters may significantly challenge them at the core of their breadwinner identities. This line of thinking is consistent with the gender role expectations explanation of gender differences (Gutek et al., 1991), which suggests that deviating too far from traditional role expectations may produce psychological discomfort. Alternatively, men who embrace less traditional role identities and attitudes might not be as stressed by domestic obligations, given a more liberal male role identity. Each of these hypotheses makes relevant the question of whether men's sex-role egalitarian attitude affects the way men experience psychological distress in relationship to work-family conflict. Likewise, among women, sex-role egalitarian attitude may also affect the relationship between psychological distress and work-family conflict. To date, there appear to be no studies that have measured sex-role egalitarian attitude in relationship to work-family conflict in men and women.

Current Study

This study was designed to further explore the relationship of work-family conflict and psychological distress in a sample of employed men and women. This study represents an improvement over previous studies in the following ways: (a) use of a psychometrically sound, and theoretically based, new bi-directional measure of work-family conflict; (b) inclusion of a broader range of psychological variables that represent potential indicators of psychological distress that might be expected to relate to work-family conflict (some have been examined in previous studies, e.g. depression and stress, while others have not, e.g. anger and guilt); and (c) inclusion of a sex role egalitarian attitude measure, for the first time, in an effort to determine whether sex role egalitarian attitude is mediated by, or whether it moderates the relationship between either type of work-family conflict and psychological distress. This study was designed with the specific intent of determining whether previous findings, suggesting that family-to-work conflict is more distressful than work-to-family conflict, would be replicated. Also, this study was designed to further examine the role of gender differences in relation to psychological distress and work-family conflict, given the mixed results that have been reported in the literature.

Research Questions

The specific research questions addressed in this study were as follows:

(1) What is the relationship between work-to-family conflict and psychological distress?

(2) What is the relationship between family-to-work conflict and psychological distress?

(3) Is work-to-family conflict a mediator between sex role egalitarian attitude and/or gender with psychological distress?

(4) Is family-to-work conflict a mediator between sex role egalitarian attitude and/or gender with psychological distress?

(5) Does gender and/or sex role egalitarian attitude potentially moderate the relationship between work-to-family conflict and psychological distress?

(6) Does gender and/or sex role egalitarian attitude potentially moderate the relationship between family-to-work conflict and psychological distress?

Method

Participants

The sample consisted of 221 adults (144 men, 77 women) employed at a large company in the Southwest. Four hundred twenty-five employees were invited to participate in the study. The demographic profile of the group was 10% minority, with 65% male and 35% female. Approximately 88% of the participants were in salaried positions, and approximately 12% were in hourly positions. Respondents were asked to endorse age ranges, rather than provide an exact age, for anonymity reasons. Forty-eight percent of the participants were between the ages of 40 and 49; 28% were in the age range of 50-59; 20% were in the age range of 30-39; and only 4% were younger than 30 or older than 60. The mean age was estimated to be slightly over 40 years old. Approximately 53% of the participants had earned an undergraduate degree, and another 18% had earned a graduate degree. Approximately 83% of participants were married or living with a partner, while the other 17% were single or divorced. Ninety percent of the

participants were parents; 17% had children, preschool age or younger, and the overwhelming majority still had minor aged children.

Instruments

In addition to a demographic questionnaire, participants were asked to complete eight instruments assessing work-family conflict, psychological distress, and sex role egalitarian attitude.

Work-Family Conflict Scale (WFCS). The WFCS (Carlson, Kacmar, & Williams, 2000) contains 18 items designed to assess work-to-family conflict (work interference with family) and family-to-work conflict (family interference with work). Each of the two conflict scales is further divided into three subscales (yielding a total of six subscales), which assess three specific forms of conflict (time-based, strain-based, and behavior-based). Because this study focused on work-to-family and family-to-work conflict as general constructs, only the two global scales (work-to-family conflict and family-to-work conflict) were used in this study. This instrument was chosen because its items tap all three forms of work-family conflict and is, therefore, thought to be more theoretically and methodologically sound than other known work-family conflict measures. Respondents rate the degree to which each statement describes their experience on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Reported coefficient alphas for the six subscales ranged from .78 to .87. Coefficient alphas of .78 and .79 for work-to-family and family-to-work scales, respectively, based upon 6 items, were obtained (D. Carlson, personal communication, May 21, 2001 and June 1, 2001). Although internal consistency was not examined for the 9-item scales, the author predicted that even higher alpha coefficients would be found for

the longer scales. Consistent with this prediction, the internal consistency reliability for the current sample was .87 for work-to-family conflict and .83 for family-to-work conflict.

The WFCS was constructed over a series of three studies. Ultimately, a six-factor model (with factors allowed to correlate) was determined to be the best fitting model. The authors purported that discriminant validity of the subscales has been demonstrated by low factor correlations, which ranged from .24 to .83; however, four of the correlations exceeded .50. Thus, there appears to be some overlap among the six dimensions represented in the six subscales. Invariance of the factor structure was established across samples based on a LISREL two-group measurement procedure, further confirming the structure of the six-factor model. This same procedure was used to test the six-dimensional model for invariance across gender, and found to be minimally invariant. T-tests on the level of experienced conflict across all six dimensions revealed that females were found to experience more conflict than men in all three FIW forms of conflict, as well as strain-based WIF conflict. In addition, each of the scales differentially related to various antecedents (i.e., work-role ambiguity, work involvement, and work social support) and consequences (i.e., job satisfaction, family satisfaction, life satisfaction, and organizational commitment) of work-family conflict, further suggesting the potential predictive validity of the scales.

The Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D (Radloff, 1977) is a 20-item self-report scale designed to assess depressive symptomatology, with emphasis on the affective component, depressed mood. The CES-D is a widely-used instrument in general population surveys and is intended to be a

measure of current symptoms and mood, rather than of illness or disorder. Respondents are asked to rate on a 4-point Likert-type scale, ranging from (0) to (3), how often they experienced each of the various depressive symptoms during the past week. Sixteen of the symptoms are worded negatively with the other four being worded positively to avoid the possibility of a patterned response set. A respondent's scale score is simply the sum of all items.

The CES-D has been reported to have high internal consistency, with coefficient alphas ranging from .85 to .91 in patient and community samples (Radloff, 1977; Ensel, 1986). The internal consistency reliability was .90 for the current sample. Modest test-retest reliability coefficients of .40 and above were reported, but deemed acceptable due to expected changes in mood over time and the scale's intended sensitivity to current levels of symptoms. Substantial evidence supporting the validity of the CES-D has been reported. For example, scores on the CES-D were found to correlate positively with other clinical rating scales such as the Hamilton Clinician's Rating scale, the Raskin Rating scale, and the 90-item SCL-90. The CES-D was also reported to positively relate to other self-report depression measures such as the Lubin and Bradburn Negative Affect, with correlations ranging from .50 to.70 (Radloff, 1977). Further, the CES-D effectively differentiated between psychiatric inpatient and general population samples, discriminated among the levels of severity within patient groups, and reflected improvements after psychiatric treatment. The CES-D was validated on a variety of subgroups that were diverse in age, gender, and socioeconomic status (Radloff, 1977; Ensel, 1986). The CES-D has continued to be widely used as a measure of depression in empirical studies and, in particular, those aimed at the general population.

State-Trait Anger Expression Inventory-2 (STAXI-2). The STAXI-2 (Spielberger, 1999) measures the experience, expression, and control of anger. Extensive research on the original instrument (STAXI; Spielberger, 1988) over the past 10 years has culminated in the revised 57-item STAXI-2. This revised instrument consists of six scales, five subscales, and an Anger Expression Index, which provides an overall measure of the expression and control of anger. The five subscales are associated with the State Anger and Trait Anger scales. The remaining four scales do not yield subscale scores (i.e., Anger Expression-In, Anger Expression Out, Anger Control-In, and Anger Control-Out). This study utilized three scales of the STAXI-2, including Trait Anger, Anger-Expression-In, and Anger Expression-Out. These scales are described in the manual as follows: (a) Trait Anger – "how often angry feelings are experienced over time" and "how often they feel that they are treated unfairly by others", (b) Anger Expression-In – "how often angry feelings are experienced but not expressed" (suppressed), and (c) Anger Expression-Out – how often angry feelings are expressed in verbally or physically "aggressive behavior toward other persons or objects in the environment" (Spielberger, 1988, p. 2, 16). Respondents are asked to rate themselves, regarding either the frequency or intensity of their angry feelings, on a 4-point scale.

According to the manual, the internal consistency reliabilities of the scales and subscales of the STAXI-2 were satisfactory (alpha coefficients ranged from .73 to .93) and without influence of gender or psychopathology (Spielberger, 1999). The alpha coefficients for the current sample were .78 for Trait Anger, .79 for Anger Expression-In, and .74 for Anger Expression-Out. The empirical structures of the items seem to match the scale structure extremely well (Fuqua et al., 1991). Additional validity evidence can

be found in positive correlations of anger scales with other measures of anger or hostility (Spielberger, 1988), the ability of anger scales to discriminate high and low anger groups (Spielberger, 1988), and the relationship of anger scores to hypertension and Type A behavior (Van der Ploeg, van Buuren, and van Brummelen, 1988 as cited in Newman et al., 1999). More recent health-related research has revealed that various STAXI scales, and/or subscales, have positive correlations with elevated blood pressure, hypertension, cardiovascular reactivity, coronary heart disease, and posttraumatic stress disorder, thereby providing further evidence for concurrent validity (Spielberger, 1999).

Perceived Stress Scale (PSS). The PSS (Cohen, Kamarck & Mermelstein, 1983) is a 14-item instrument used to measure the degree to which situations in one's life are appraised as stressful. Specifically, PSS items were designed to provide a direct measure of the degree to which respondents currently find their lives unpredictable, uncontrollable, and overloading (postulated by the authors as central components of the experience of stress). Respondents are asked to endorse how often they have felt or thought a certain way over the last month, as measured by a 5-point Likert scale ranging from 0 (never) to 4 (very often). Items are easy to understand, and the response alternatives are simple to grasp. The questions are quite general in nature and, hence, are relevant to a broad range of sub-groups. Participants' scores on the PSS are obtained by first reversing the scores on seven designated positive items, and then summing across all 14 items, with higher scores indicative of higher levels of stress (Cohen et al., 1983).

Coefficent alphas of .84, .85, and .86 in three samples (two college student samples and one community smoking-cessation program sample) have been reported in the manual. Internal consistency reliability for the current sample was .86. Test-retest

reliabilities of .85 for a college sample, utilizing a 2-day time interval, and .55 for the smoking cessation sample, utilizing a 6-week time interval have been reported. As expected, the shorter retest time interval yielded a higher test-retest correlation. Also, as predicted, the PSS correlated in the expected manner with a range of self-report and behavioral criteria, including life-event scores, depressive and physical symptomatology, utilization of health services, social anxiety, and smoking-reduction maintenance, providing evidence of concurrent and predictive validity. Relationships between PSS scores and validity criteria were generally found to be unaffected by sex or age.

Revised Mosher Guilt Inventory (RMGI). The RMGI (Mosher, 1988) is a 114-item instrument derived from the original Mosher Guilt Inventory (Mosher, 1966). It was designed to assess a cognitive predisposition to experience guilt in adults. The revised inventory consists of three scales: Guilty Conscience (22 items), Sex Guilt (50 items), and Hostility Guilt (42 items). The Sex Guilt and Hostility Guilt scales were purported to be potential measures of moral standards, based on reference to very specific behaviors or scenarios in items on the inventory. The Guilty Conscience scale, on the other hand, was considered by Mosher to be a more general measure of the tendency for negative self-judgment and the need for punishment. Hence, the decision was made to include only the Guilty Conscience scale in this study.

Items in the Guilty Conscience scale are arranged in pairs of endings to the same sentence completion stem. Participants respond to items by rating their responses on a 7-point Likert-type scale where 0 means not at all true of (for) me, and 6 means extremely true of (for) me. The limited comparison format (two different completions to a single stem) permits participants to compare the intensity of *trueness* for them since people

generally find one alternative is more or less *true* for them. Scores are summed for each scale by reversing the nonguilty alternatives, with higher scores indicating more guilt.

Reliability data were not reported by Mosher for the revised version of the inventory. However, for the earlier version of the Mosher Guilt Inventory, split-half or alpha coefficients averaged around .90. In addition, an item analysis of items on the revised inventory yielded item-whole correlations ranging from .32 to .63, with a median of .46. The internal consistency reliability for the current sample was .77. Discriminant validity was established between scales, with 90% of the items having a correlation with their own scale that was significantly different from the correlation of the item with the other scale totals. According to Mosher (1979), the construct validity of the original inventory was strongly supported by findings of approximately 100 empirical studies. Mosher (1988) cited several additional empirical studies in the mid-1980s that provided further evidence for the construct validity of the inventory as a useful measure of guilt as a personality disposition (Green & Mosher, 1985; Kelley, 1985; Mosher & Vonderheide, 1985).

The Rosenberg Self-Esteem Scale (RSES). The RSES (Rosenberg, 1965) is a 10-item scale primarily designed to measure self-approval or self-acceptance. Respondents indicate their degree of agreement with each item on a 4-point Likert scale, ranging from 1 (strongly agree) to 4 (strongly disagree). In order to reduce the effect of "respondent set", Rosenberg alternated positive and negative items on the inventory. Higher scores indicate greater self-esteem. According to Rosenberg (1965), the scale was meant to be a Guttman scale. However, after receiving strong criticism, the scale was deemed to be as valid when scored as a simple additive scale.

The scale's internal consistency has been reflected in a 92% coefficient of reproducibility. A test-retest reliability of .88 over a 2-week period has been reported for a sample of college students (Rosenberg, 1965). In a study by Napholz (1994), the alpha coefficient for a paid-worker adult sample was reported as .88. In the current sample, the internal consistency reliability was .87. Convergent validity has been supported by scale correlations ranging from .56 to .83 with several similar measures of self-esteem, along with clinical assessment. Tippett and Silber (1965) reported evidence of the discriminant validity. Rosenberg (1965) also reported considerable data to establish construct validity of both this measure and self-esteem in general. For example, the scale correlated as expected in separate studies measuring the relationship between self-esteem and such factors as depressive affect, psychosomatic symptoms, peer-group reputation, and the ability to criticize oneself. Additional evidence supporting this instrument was provided by Rosenberg in the form of correlations of the measure with various other aspects of psychological functioning, interpersonal attitudes, peer group participation and leadership, concern with broader social affairs, and occupational values and aspirations.

Duke-UNC Health Profile (Symptom Status Scale) (SSS). The SSS is one of four subscales included in the Duke-UNC Health Profile (DUHP), a 63-item instrument designed to measure adult health status in the primary care setting (Parkerson, Gehlbach, Wagner, James, Clapp & Muhlbater, 1981). It is suitable for both research and day-to-day clinical assessment. The profile is intended to be used by adults, age 18 years and older. It can be self-administered by those with at least a ninth-grade education, or otherwise easily interviewer-administered. The SSS was included in the DUHP because physical symptoms are often the earliest and, sometimes, the only manifestation of altered health.

They are considered to be a natural expression of dysfunction within the body and mind, and complete the picture of mental health by examining the linkage of body states to psychological phenomena. The scale is comprised of 26 physical symptom items. Respondents are asked about 22 symptoms experienced during the past week, and 4 symptoms experienced during the past month. Examples of weekly symptoms include problems with hearing, sleeping, indigestion, poor memory, breathing, etc., and monthly symptoms include problems with undesired weight gain or loss, unusual bleeding, and sexual performance. Respondents are asked to answer, "How much trouble have you had with..." followed by a symptom, with three possible severity categories from which to choose. These include: 0 (none); 1 (some); 2 (a lot). A higher score indicates a more concerning level of experienced symptoms.

Reliability and validity were examined on a group of 395 ambulatory patients in a family medicine center. According to Parkerson et al. (1981), measurement of reliability with regard to the SSS proved difficult, since high internal consistency would not be expected, given the heterogeneous content of symptom status. Temporal stability of scores (test-retest) was utilized, therefore, as the assessment for reliability for the SSS. Despite problems arising because the test-retest interval of 1 to 8 weeks allowed time for symptoms to fluctuate even in respondents with stable medical conditions, overall stability for the SSS was considered acceptable as indicated by a coefficient of .68. Developers of the instrument also pointed out that since a respondent is only asked to report physical symptoms, and is not asked to make an overall assessment of his/her health, the symptom status data are more reliable than a self-assessment of health would be. That is, a self-assessment of health would require a respondent to factor in his/her

own concept of "health," which would likely vary greatly among respondents. Observed relationships between DUHP scores and demographic characteristics of the respondents correlated well with those predicted by the investigators (overall Spearman correlation = .79). The internal consistency reliability for the current study sample was .84.

Evidence of validity of the SSS was established by comparing the symptom status scores with the other DUPH scales, as well as with other instruments. Symptom status scores highly correlated with the other three dimension scores, which included physical functioning, emotional functioning, and social functioning. According to the instrument developers, "this finding fits with the recognized clinical phenomenon that symptoms, such as headache or trouble with appetite and sexual performance, can be associated with various combinations of physical, social or emotional problems" (p. 818). Correlations of the SSS with other instruments provided evidence of concurrent and discriminant validity. For example, the scale correlated substantially with the Sickness Impact Profile (r = .66), which also measures physical aspects of health, and with the Zung instrument (r = .61), a measure of somatic and psychological concomitants of depression partly reflected by patients' symptoms. In contrast, the scale correlated negligibly with the Tennessee Self-Concept Scale (r = .22), which specifically measures the emotional dimension of health and would not, therefore, be expected to correlate highly with a physical symptom measure.

The Sex Role Egalitarianism Scale (Form BB)(SRES). The SRES (King & King, 1993) is a 25-item self-report instrument designed to measure attitudes about the equality of men's and women's roles. This measure utilizes a more "contemporary translation of 'gender-role equality' to encompass the 'bi-directional' nature of the concept. True

equality means the absence of evaluative judgments about men and women who choose to assume any person-role" (King & King, 1993, p. 2). Attitudes regarding marital roles, parental roles, employment roles, social-interpersonal-heterosexual roles, and educational roles were all considered in the item development. A 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) is used, with higher scores indicating more egalitarian attitudes. Total scores are computed by summing across the 25 items, with possible scores ranging from 25-125.

Various estimates of reliability have been high (King & King, 1993). The coefficient alpha for Form BB was found to be .94. Test-retest stability estimates of .88 have been reported. The correlation of form BB with the full form B was found to be .95. Internal consistency reliability for the current sample was .68. Analyses of factorial validity have yielded evidence that the egalitarianism construct is unidimensional for samples of males and females examined separately and combined. Convergent and discriminant evidence has been established as several studies have confirmed expected relationships with measures of similar and dissimilar constructs (King & King, 1986; King & King, 1993). The authors also reported nomological evidence by referring to a study conducted by Beere et al. (1984 cited in King & King, 1993). In this study, significantly higher means were reported for women than men, due to the notion that women purportedly have more to gain by shifts away from traditional sex-role expectations and behaviors.

Social Desirability Scale (SDS). The SDS was utilized in this study to address concerns that participants' responses to the Sex Role Egalitarian Scale might be influenced by a desire to appear socially desirable. Social desirability was measured by a

25-item scale in a true/false format derived from the Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1964). The M-C SDS has a test-retest correlation of .89 and an internal consistency coefficient of .88 (Crowne & Marlowe, 1960). Internal consistency reliability for the current sample was .76.

Procedures

All 425 employees were invited to participate in the study. The employees received an email from their division manager that introduced the study and the investigator, and encouraged participation in the study on a voluntary basis. The employees were then directed to click onto a video of the investigator giving a 3-minute overview of the study, explaining the purpose and relevance of the study. In addition, the investigator informed employees of an incentive for participating in the study that involved an opportunity to participate in four random drawings for a $250 airline gift certificate. At the end of the video, employees were asked to click onto an informed consent attachment to learn about their rights as participants and the risks and benefits of participating in the study. Employees choosing to participate in the study were given the option of linking onto a secure, password-protected, university-based website to take the survey electronically, or picking up a packet in their building to complete and return by mail. Participants were advised that returning completed research response packets or submitting electronic surveys implied their consent to participate in the study. They were strictly advised not to put their names or any identifying information on the research instruments returned by mail. Participants were invited to email the investigator directly under separate email to enter the drawing and were assured of confidentiality. Participants were advised that group data would be shared with all employees in

approximately six months time via company communication, but that absolutely no individual data would be made available.

Research materials consisted of a brief demographic questionnaire and the 8-instrument battery, all of which took approximately 30 minutes to complete. Twenty percent of participants returned packets by mail; 80% of participants chose to participate electronically. The four winners of the random drawing chose to waive confidentiality to allow their names to be announced through division communications and for their awards to come directly from the human resource project liaison. Identifying information was stripped from the electronically submitted surveys by the website administrator. Data were provided to the investigator via a data text file. All mail-in research materials remained in the investigator's possession. All participants were treated in accordance with the ethical standards of the American Psychological Association (American Psychological Association, 1992).

Results

Prior to analysis, the data were examined through various SPSS and SAS programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of multivariate analysis. No missing data were found among the 176 electronically submitted cases, as the program would not allow the respondents to progress without completing all items. There was one mail-in case with several missing items on the health variable, and, therefore, the overall case was omitted from the data analyses. Negligible elements of missing data occurred randomly among the 43 remaining mail-in cases. In these cases, the missing items represented less than 10% of any one scale, and, therefore, the scale item means were substituted for the missing data.

All measures were evaluated for homoscedasticity; that is to say, homogeneity of variance was analyzed and found to be within desirable limits. The potential for univariate outliers, and for non-normality of distribution, was assessed by examining the skewness and kurtosis of the distributions for the eight psychological distress measures, as well as the sex role egalitarian attitude and work-family role conflict measures. The distributions for the health and depression variables were found to be positively skewed, and were transformed using a logarithmic transformation, so that all variables met the assumption of normality required for the canonical correlation and multiple regression analyses. The distributional characteristics of the study variables (after log transformations of the health and depression variables) are presented in Table 1.

Data were collected from August 31, 2001 through September 21, 2001. The means and standard deviations for men, women, and the total sample, on all instruments, are presented in Table 2. The correlations for all instruments for the total sample are presented in Table 3. Due to the timing of the data collection, a preliminary analysis was conducted to determine if participants' responses were affected by the historical events that took place on September 11, 2001, with the terrorist attacks on the World Trade Center and the Pentagon. A series of temporal case-by-case line charts were plotted, using the 177 electronically submitted surveys that were ordered, according to date of submittal from August 31 through September 21. Scales for depression, perceived stress, health, anger expression-in, anger expression-out, work-to-family conflict and family-to-work conflict were analyzed. Scales were chosen for analysis based on an evaluation of the likelihood that items comprising the scale might be affected by the events. Perceived stress was the only scale that seemed to appreciably increase from the first one-third of

the cases to the last one-third. This elevating trend, however, was a gradual increase in stress, beginning at the start of the study and proceeding until the end. There was no significant jump in the elevation at any time. The increase in stress could be as easily accounted for by the hypothesis that those who respond later may be procrastinators, consistent with personalities that evoke higher stress levels (Tice & Baumeister, 1997). Results of all scale analyses, therefore, revealed no changes in participants' response patterns that could be attributed to the historical effect. Further, the relationship between social desirability and sex role egalitarian attitude was examined and found to be non-significant.

The general data analytic strategy, utilized to answer the three main sets of research questions (Questions 1 & 2; Questions 3 & 4; and Questions 5 & 6), consisted of using canonical correlation analyses with a series of multiple regression follow-up analyses. The multivariate nature of the data required the use of canonical correlation, which allows for the relationship between two sets of variables to be analyzed. Using canonical analysis, the eight psychological measures were statistically grouped into a linear combination of variables, defined as the psychological distress variate. These eight variables included health, self-esteem, perceived stress, guilt, trait anger, anger expression-in (suppressed anger), anger expression-out (expressed anger), and depression. The psychological distress variables were thusly treated as the dependent variables. Independent variables included work-to-family conflict and family-to-work conflict, and were statistically aggregated into a linear combination, defined as the work-family conflict variate.

To answer research Questions 1 and 2, it was important to determine whether both work-to-family and family-to-work conflict uniquely predicted psychological distress. If so, was one type of conflict relatively more influential than the other? A simple main effects model was first used to determine the relationships of work-to-family conflict and family-to-work conflict with psychological distress. A canonical correlation analysis revealed that the canonical correlation between scores of the first optimal composite of psychological distress variables, and the optimal composite of the work-to-family and family-to-work conflict variables, was $\underline{R}_c = 0.62$ ($\underline{F}$ (16, 420) = 7.89; $\underline{p} < .001$; Wilks' Lambda). Work-to-family conflict accounted for 28% of the variance in the psychological distress variate, while the family-to-work conflict variable accounted for 32% of the variance in the psychological distress variate. There was substantial shared variance in the two constructs, however, in that the linear combination of the two explained only 38% of the variance in the psychological distress variate.

A canonical structure analysis of the correlations between the eight individual psychological distress variables and the composite psychological distress variate revealed that perceived stress, depression, and health correlated most highly with the psychological distress composite. Correlations of self-esteem and anger expression-in (suppressed anger) with the psychological distress composite were in the moderate range, while correlations for guilt and trait anger were slightly lower. Anger expression-out (expressed anger) correlated negligibly with psychological distress. These correlations are presented in Table 4 (Psychological Distress Variate W*ithin* Set Correlations).

A canonical structure analysis of the correlations of the work-to-family conflict and family-to-work conflict variables with the composite work-family conflict variate

revealed that both types of conflict correlated highly and about equally. The correlation of family-to-work conflict with the composite work-family conflict variate was slightly higher ($\underline{r}$ = .90) than the same correlation for work-to-family conflict ($\underline{r}$ = .85).

Analysis of the canonical structure *between* the psychological distress variables and the composite work-family conflict variate revealed a similar pattern to the *within* psychological distress set analysis. Perceived stress, depression, and health correlated most highly with the composite work-family conflict variate, with anger expression-in (suppressed anger) and self-esteem correlating moderately. Correlations of guilt and trait anger with the composite work-family conflict variate were relatively low. Once again, anger expression-out (expressed anger) did not correlate with the work-family conflict variate (see Table 4, Work-Family Conflict Variate B*etween* Set Correlations).

Finally, a canonical structure *between set* analysis revealed that work-to-family conflict and family-to-work conflict correlated with the composite psychological distress variate about equally. Once again, the composite psychological distress variate related slightly more strongly with family-to-work conflict ($\underline{r}$ = .56) than with work-to-family conflict ($\underline{r}$ = .53).

To further evaluate the relationship between the psychological distress variables and the work-family conflict variables, eight multiple regression analyses were conducted in which the psychological distress variables each served as a dependent variable, and work-to-family conflict and family-to-work conflict variables served as independent variables. The results of these analyses, presented in Table 5, revealed that the conflict variables significantly predicted variation in the psychological distress variables, with the exception of the anger expression-out (expressed anger) variable.

The statistical and practical significance of each predictor variable were derived from examination of the standardized regression coefficients and squared semi-partial correlations that are summarized in Table 6. Upon initial review of these results, it appeared that family-to-work conflict might be a slightly stronger predictor of psychological distress than work-to-family conflict for each of the psychological distress variables. To evaluate whether unique effects of family-to-work conflict were actually stronger than work-to-family conflict, a statistical test was conducted that directly compared the squared semi-partial correlation values of each psychological variable for both work-to-family and family-to-work conflict. Self-esteem was the only psychological variable found to have a statistically significant difference in partial effect sizes for work-to-family and family-to-work conflict ($F(1,217) = 7.21$; $p < .008$). Therefore, the slight differences in squared semi-partial correlations found in the remaining variables were likely best explained by sampling variations.

In answer to research Questions 1 and 2, these analyses revealed that work-to-family conflict and family-to-work conflict were both uniquely predictive of psychological distress variables. Family-to-work conflict was found to be significantly predictive of all psychological distress variables, with the exception of anger expression-out (expressed anger) at .05 alpha level. Work-to-family conflict, on the other hand, was only found to be significantly predictive of perceived stress, depression, health, and anger expression-in (suppressed anger) (alpha = .05). The unique relationship of the self-esteem with family-to-work conflict was significantly stronger than the same relationship with work-to-family conflict (see Table 6).

The second set of research questions (Questions 3 and 4) involved evaluating a mediational model to test for pertinent relationships between work-family conflict variables and gender and/or sex role egalitarian attitude. "Mediators are intervening variables that can explain *why* a relation exists" (Baron & Kenny, 1986 as cited in Frone et al., 1997, p. 332). To answer these questions, it was first important to determine whether there was a direct relationship between gender and/or sex role egalitarian attitude and work-to-family conflict, and whether there was a direct relationship between gender and/or sex role egalitarian attitude and family-to-work conflict. If there was no direct relationship, then no mediation could exist. Separate multiple regression analyses were conducted, each of which failed to reveal significant relationships between a linear combination of gender and sex role egalitarian attitude and either of the two conflict variables ($\underline{R}^2 = .004$ for work-to-family conflict, and $\underline{R}^2 = .005$ for family-to-work conflict). Thus, these results ruled out a mediational role for work-to-family and family-to-work conflict in this context.

Nevertheless, it was possible that either gender or sex role egalitarian attitude may have had unique, additive effects upon psychological distress, even though they may not have been mediated through conflict. To test for these possible effects, a canonical correlation analysis was conducted whereby gender and sex role egalitarian attitude variables were added to the work-to-family and family-to-work conflict variables to determine their incremental usefulness for explaining psychological distress. This analysis revealed no significant results to suggest that gender or sex role egalitarian attitude uniquely predicted the level of work-to-family conflict or family-to-work conflict ($\triangle \underline{R}_c^2 = .0076$). Therefore, in answer to research Questions 3 and 4, neither gender nor

sex role egalitarian attitude were uniquely predictive of psychological distress, nor were their effects mediated through conflict.

To address the third set of research questions (Question 5 and 6), a moderational model was evaluated to determine whether gender and/or sex role egalitarian attitude moderated the relationship between conflict and psychological distress. That is, the relationship between work-to-family conflict and/or family-to-work conflict and psychological distress could have been greater or lesser, depending upon gender and/or sex role egalitarian attitude. Moderating effects were assessed by testing for relevant interactions between work-family conflict variables and gender and/or sex role egalitarian attitude and their combined effects on psychological distress. Comparisons of the change in canonical R^2, when comparing the simple main effects models to a model containing all possible interactions between work-to-family conflict, family-to-work conflict, gender, and sex role egalitarian attitude, revealed no significant increase in the ability to explain variation in psychological distress ($\triangle R^2 = 0.018$). Just as in the case of the mediational model, the moderating model was not found to be of significant value in predicting psychological distress. Thus, answers to Questions 5 and 6 did not confirm a moderating relationship between work-family conflict variables and gender and/or sex role egalitarian attitude.

To summarize, statistical analyses were conducted to evaluate a series of models aimed at examining the relationships between work-to-family conflict and family-to-work conflict and psychological distress. Results clearly revealed that work-to-family conflict and family-to-work conflict uniquely predicted psychological distress, with family-to-work conflict being a slightly better predictor accounting for 32% of the

variance in the psychological distress variate versus 28% for work-to-family conflict. A linear combination of both types of conflict explained only 38% of the variance in the psychological distress variate, however, indicating the two constructs shared substantial variance. Neither gender nor sex role egalitarian attitude were uniquely predictive of psychological distress, nor were they mediated by either type of conflict. They also did not moderate the effect of conflict on psychological distress. Thus, neither gender nor sex role egalitarian attitude had a significant effect on psychological distress.

Discussion

The results of this study clearly support previous empirical findings that the main-effect relations of both work-to-family and family-to-work conflict have positive linkages with psychological distress (Frone et al., 1996; Hughes & Galinsky, 1994; MacEwen & Barling, 1994; O'Driscoll et al., 1992). Not only were both types of conflict found to be positively related to psychological distress, but also both types of conflict uniquely explained psychological distress. Therefore, attempting to measure work-family conflict from only one direction (work-to-family only or family-to-work only) fails to capture the total impact of work-family conflict on individuals' psychological well-being. Thus, the use of bi-directional measures appears to be clearly indicated in any future studies of work-family conflict.

An additional contribution of this study was that it examined the notion that family-to-work conflict may have a greater impact on an individual's physical and mental health than work-to-family as found by Frone, Russell et al. (1997). A follow up study by Frone (2000) revealed that family-to-work conflict was more strongly related to psychiatric disorders than work-to-family conflict by a significant margin. While Frone's

study examined the relationship between each type of work-family conflict and the actual likelihood of various types of psychiatric disorders, this study explored the magnitude of the relationships of both types of conflict with the eight psychological distress variables. The current study revealed that family-to-work conflict correlated slightly higher than work-to-family conflict with psychological distress dimensions. Family-to-work conflict accounted for 32% of the variance in the psychological distress variate, while work-to-family conflict accounted for 28%.

Further, as shown in Table 6, the nature and magnitude of the relationships of the psychological distress variables with work-to-family and family-to-work conflict were somewhat different. Four psychological distress variables (perceived stress, depression, health, and anger expression-in) were found to have significant unique relationships with work-to-family conflict. By contrast, seven of the eight psychological distress variables (all but anger expression-out) had significant unique relationships with family-to-work conflict. Table 6 also reveals a consistent pattern in which the unique relationships of all eight psychological distress variables with family-to-work conflict were slightly stronger than the relationships of those same variables with work-to-family conflict. Upon further evaluation, these relationships were not found to be significant, except in the case of the self-esteem variable. Further efforts to explicate the nature of the relationships between the individual psychological distress variables and each type of conflict seem warranted.

As previously mentioned, Frone (2000) has hypothesized that individuals may hold themselves more accountable when family demands affect their work performance than when work demands impinge upon fulfilling their family obligations. Possibly, individuals may attribute this problem to their own inability to manage their family lives

and, thus, blame themselves for the problem. In contrast, Frone explained that the opposite dynamic may happen when demands from the work environment interfere with the home environment. When this situation occurs, individuals can attribute blame to "external" causes such as tough bosses, unreasonable work expectations, or other stressors imposed by their work organizations and, thus, not feel so personally responsible.

Related to Frone's hypothesis, it is interesting to note the relationships of self-esteem and guilt with work-to-family and family-to-work conflict. Self-esteem had the largest unique relationship of all eight psychological variables with family-to-work conflict, while having the smallest unique relationship with work-to-family conflict. Additionally, the unique relationship of guilt with family-to-work conflict was found to be statistically significant, while its unique relationship with work-to-family conflict failed to reach statistical significance. It seems logical that lower self-esteem and stronger guilt feelings may occur in individuals who internally attribute responsibility and blame for their problems. Further research, examining variables that tap attributions for personal responsibility, may be helpful in further exploring the relationships of the two types of conflict with psychological distress.

Another potential explanation for possible differences in work-to-family and family-to-work conflict in relationship to psychological distress may be that problems affecting family life are simply more emotionally distressing than problems experienced in the work arena. For example, dealing with a failing marriage, problems with children, or the poor health of a loved one, by their very nature, would cause significant psychological distress in the affected person.

Better understanding the potential impact of each of these explanations will be important in tailoring interventions to help alleviate such distress. For example, when psychological distress is associated with family circumstances, organizations may want to ensure that work expectations are adjusted to allow individuals a realistic amount of time and support to deal with their family problems. Making timely mental health interventions available to individuals through culturally accepted employee assistance programs would represent a pro-active step on the part of organizations to help head off potentially escalating problems and impacts to both the employee and the organization. Additionally, there are steps that organizations can take to offset distress experienced by individuals who blame themselves when their family priorities impinge upon their work life. Organizations may create cultures that spawn different belief systems that make it acceptable for their employees to make family issues a priority. Some interventions that may help in creating a different culture include educating employees and their supervisors about the importance of maintaining a healthy balance of work and family roles, implementing policies that give employees more control over, and flexibility in, their work environments, and striving to ensure that rewards and incentives do not encourage the "workaholic" mentality. In general, organizations would do well to create more accepting cultures that acknowledge the reality that employees' family lives will, and are even expected to, affect work performance from time to time. Conducting focus groups and employee attitude surveys that measure employees' experiences of work-family conflict in the work culture may help organizations understand the messages they may be sending unintentionally. Implementing follow-up internal task forces, charged with the responsibility to develop and recommend solutions to issues identified through

the surveys, could result in important cultural changes. Holding effective and non-threatening exit interviews may also shed light on employees' decisions to leave organizations and the potential role of work-family conflict in those decisions. In the end, any steps organizations can take to help alleviate the level of work-family conflict experienced by their employees will likely have considerable impacts on health costs, productivity, and turnover.

Another way in which this study extended previous research was by including a broader set of psychological dimensions when examining the relationships between both types of work-family conflict and psychological distress. Overall, this study demonstrated that work-to-family and family-to-work conflict related to a broad range of psychological distress variables, and especially family-to-work conflict, as previously discussed. Past studies have typically limited psychological dimensions to not more than three. In this study, eight dimensions were selected to represent a diverse collection of potential indicators of psychological distress that might be expected to relate to one or both types of work-family conflict.

Not surprisingly, perceived stress, depression, and health were found to contribute the most significantly of all eight dimensions to overall psychological distress, as well as overall work-family conflict. These variables have been examined in the past and shown to have positive linkages with work-family conflict. The relative strength of their contribution to the psychological distress and work-family conflict variates is noteworthy, however, as these variables have never been looked at in the context of a broader set of psychological dimensions. Negative consequences associated with all three of these variables have been well documented in terms of mental and physical health

costs and decreased productivity (Duxbury & Higgins, 1991; 1994; Frone, Russell et al., 1997; Jamal, 1999; Sauter, 1992; Sui & Cooper, 1998).

Of the remaining five variables, four (anger expression-in, self-esteem, guilt, and trait anger) all correlated positively, albeit at lower levels, with overall psychological distress and work-family conflict. Similar to the first three variables mentioned, self-esteem has also been used in prior studies as a measure of psychological well-being and was found to positively correlate with work-family conflict. Guilt and anger, on the other hand, have not previously been examined as measures of psychological distress in relationship to work-family conflict. As already mentioned, the unique relationship between guilt and family-to-work conflict proved to be significant, while its unique relationship to work-to-family conflict did not. Looking closer at individuals, who experience strong guilt feelings in relationship to higher levels of family-to-work conflict, may increase understanding of how these two variables are linked and how to target helpful interventions.

Of the three anger variables, anger expression-in (suppressed anger) correlated most strongly with overall psychological distress and work-family conflict. Its unique relationships with work-to-family and family-to-work conflict were statistically significant. Thus, suppressed anger appears to be a variable worthy of further exploration as it relates to both types of work-family conflict. An examination of the zero order correlations, presented in Table 3, reveals that anger expression-in relates more strongly to depression than to any of the other variables included in this study. It has long been speculated in the clinical literature that suppressed anger may, at times, be converted into depression (Newman et al., 1999). Further exploration of the relationship between

depression and suppressed anger, in the context of work-family conflict, may prove enlightening. Given that this is the first study to examine anger in relation to work-family conflict, additional studies including the full range of scales from the STAXI-2 are warranted.

In general, the results of this study suggest that inclusion of a wide range of psychological variables may help to enrich our understanding of the nature of psychological distress and the various ways it can manifest itself in relation to work-family conflict. These insights may prove to be very useful when determining how to ameliorate the effects of work-family conflict.

A final contribution of this study was to shed additional light on the question of whether gender differences exist in the relationship between psychological distress and the two types of work-family conflict. An earlier review of the literature revealed convincing evidence that women generally experience more work-family conflict than men (Duxbury & Higgins, 1991, 1994; Gutek et al., 1991; Voydanoff, 1988). In this study, however, there were no significant differences in the level of work-to-family conflict or family-to-work conflict experienced by men and women. As to the question of how gender differences relate to psychological distress, these results indicated that gender did not moderate (affect the magnitude) the relationship between work-family conflict and psychological distress. Neither was gender mediated by either type of conflict in relationship to psychological distrress.

Baed upon some admittedly sparse data, the possibility that men may be more affected by work-family conflict than women appeared to be an issue worthy of further study. While this study did not provide evidence that men are more affected, results do

suggest that men are *as* affected as women. The idea, then, that work-family conflict is predominantly a woman's issue, appears unfounded in light of this and other previously published empirical studies (Frone et al.1992a; Frone et al., 1996; Kinnunen, Gerris, & Vermulst, 1996; Moen, 1992). While the literature initially focused primarily on women, work-family conflict has come to be seen as an equally important concern for men. Both men and women have been found to suffer psychological consequences of work-family conflict. Organizations, who truly embrace work-family conflict as a problem to be addressed for all of their employees, stand to benefit in a number of quantifiable areas already mentioned (e.g. health costs, productivity, retention, recruitment). Programs and cultural interventions aimed at addressing these issues should be targeted at men as well as women.

The reasons men are as equally impacted by work-family conflict as women have yet to be empirically defined. The SRES measure was included as a variable in this study to help shed light on whether sex role egalitarian attitude had a significant effect on the relationship between work-family conflict and psychological distress for men and/or women. Borrowing from the gender role expectations explanation of gender differences, it was suggested that men, who were more traditional in their role identity, might be as impacted by work-family conflict as women since taking time to deal with family matters may significantly challenge their core breadwinner identities. Alternatively, men who were more liberal in their sex role egalitarian attitude, might be less affected by work-family conflict, based on this line of thinking. Neither of these explanations were supported, as the results of this study revealed that sex role egalitarian attitude did not

have a significant effect on psychological distress through a mediational or moderational role with either type of work-family conflict in men or women.

The lack of significant findings may be due in part to the measure that was used. The SRES was found to have only a moderate reliability for this sample. Additionally, the normative group for the instrument varied significantly from participants in the current study. The mean score for participants in this sample was 54.13 versus 105.61 for the normative group. It would appear, then, that participant's attitudes in this group were significantly less egalitarian. This may, in part, be due the differences in mean ages between the two groups (i.e., slightly over 40 years old for the current study versus 20.65 for the normative group), and the fact that the majority of the normative group was not married. Therefore, evaluation of the role of sex role egalitarian attitude as related to work-family conflict and psychological distress with other samples may be warranted. Further, the nature of items on this scale tap sex role attitudes rather narrowly. Other measures, that tap sex role egalitarian attitudes more broadly, may be worth exploring in future research.

Limitations of Study

It should be noted that this study had several limitations. It is likely that the findings obtained in this study were affected by the homogeneity of this corporate sample. This particular sample was primarily Caucasian, highly educated, and middle aged. It was conducted within one company culture and, therefore, may not be generalizable to other corporate samples with significantly different cultural climates or demographic profiles. For example, the fact that gender differences were not found in this study could be due to the similar characteristics of men and women in this sample and a

corporate culture that treats men and women equally. Finally, since this study was correlational in nature, no inference can be drawn regarding the causal nature of relationships among the variables studied. Experimental studies are seriously lacking in the study of work-family conflict and would prove extremely useful in furthering our understanding of how to alleviate the psychological distress associated with both types of work-family conflict.

Conclusions

In conclusion, evidence found in this study clearly supports previous empirical findings that both types of work-family conflict are positively related to psychological distress. Results also support emerging evidence that family-to-work conflict may relate more strongly to psychological distress, than work-to-family conflict; however, the difference in this study was slight and clearly warrants further study. Also, results from this study demonstrated that both types of work-family conflict relate to a broad range of psychological distress variables, with health, perceived stress, and depression among the strongest relationships. As to the question of gender and sex role egalitarian attitude, neither was found to have a significant effect on the relationship of work-to-family and family-to-work conflict and psychological distress in this sample. Organizations have much to gain from progressive efforts to create family friendly cultures that help alleviate harmful effects of work-family conflict. These efforts could result in big payoffs through reduced health costs, increased productivity, and successful recruitment and retention rates, not to mention improving the quality of life for men and women employed in these organizations.

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Table 1

Normal Distribution Indices for each Scale

Scale	Mean	SD	Skewness	Kurtosis
Work-to-Family Conflict	3.00	.76	-.08	-.21
Family-to-Work Conflict	2.50	.63	.27	.42
Sex Role Egalitarian Attitude	54.10	7.60	-.06	-.54
Health	.24	.15	.56	-.04
Self-Esteem	16.70	4.70	.65	.61
Perceived Stress	44.20	7.80	.14	.16
Guilt	66.90	15.80	-.17	-.07
Trait Anger	18.40	4.30	.76	.53
AX-I	15.90	4.10	.48	-.31
AX-O	13.10	3.00	.54	.30
Depression	2.40	.76	-.58	.33

Table 2

Means and Standard Deviations for Men, Women and the Total Sample for Each Scale

	Men (n = 144)		Women (n = 77)		Total Sample (n = 221)	
Scale	M	SD	M	SD	M	SD
Work-to-Family Conflict	3.04	.82	2.92	.61	3.00	.76
Family-to-Work Conflict	2.54	.68	2.55	.53	2.54	.62
Sex Role Egalitarian Attitude	52.20	7.08	57.73	7.30	54.13	7.62
Health	.22	.15	.26	.15	.24	.15
Self-Esteem	16.66	4.73	16.65	4.53	16.66	4.65
Perceived Stress	44.01	7.95	44.60	7.54	44.21	7.80
Guilt	66.15	17.16	68.21	12.98	66.87	15.83
Trait Anger	18.55	4.47	18.14	3.99	18.41	4.30
Anger Expression-In	16.14	4.02	15.57	4.21	15.94	4.90
Anger Expression-Out	13.15	2.96	13.00	3.12	13.10	3.01
Depression	2.33	.76	2.40	.77	2.36	.76

Table 3

Correlational Table of all Variables for Total Sample

	Hlth	Dep	SES	Stress	Guilt	TANG	AX-I	AX-O	WTF	FTW	SRES
Hlth	1.0	.58	.32	.48	.21	.18	.28	.18	.41	.43	.00
Dep		1.00	.50	.66	.44	.35	.42	.23	.44	.47	-.09
SES			1.00	.43	.38	.24	.33	.20	.22	.36	-.11
Stress				1.00	.35	.31	.37	.12	.45	.48	.02
Guilt					1.00	.20	.33	.02	.17	.25	-.13
TANG						1.00	.31	.59	.17	.24	-.03
AX-I							1.00	.09	.27	.32	-.03
AX-O								1.00	-.01	.10	.05
WTF									1.00	.54	-.06
FTW										1.00	-.07
SRES											1.00

Hlth = Health
Dep = Depression
SES = Self-Esteem
Stress = Perceived Stress
TANG = Trait Anger
AX-I = Anger Expression In
AX-O = Anger Expression Out
WTF = Work-to-Family Conflict
FTW = Family-to-Work Conflict
SRES = Sex Role Egalitarian Scale

Table 4

Correlations Between the Psychological Distress Variables and the Canonical Composite Psychological Distress Variate and Work-Family Conflict Variate

Variable	Psychological Distress Variate *Within* Set Correlations	Work-Family Conflict Variate *Between* Set Correlations
Perceived Stress	.85	.53
Depression	.84	.52
Health	.77	.48
Anger Expression-In	.56	.35
Self-Esteem	.55	.34
Guilt	.40	.25
Trait Anger	.38	.24
Anger Expression-Out	.10	.06

Table 5

Univariate Multiple Regression Statistics for Predicting the Psychological Distress Variables from the Work-Family Conflict Variables

Variable	R^2	F Value	Pr > F
Perceived Stress	.28	42.15	.0001
Depression	.27	40.87	.0001
Health	.23	31.98	.0001
Self-Esteem	.13	16.62	.0001
Anger Expression-In	.12	14.70	.0001
Guilt	.07	7.54	.0007
Trait Anger	.06	6.83	.0013
Anger Expression-Out	.02	1.83	.1627

Table 6

Standardized Regression Coefficients and Squared Semi-Partial Correlations for Dependent Variables

Dependent Variable	Work-to-Family Conflict				Family-to-Work Conflict			
	β	t	p	SPR^2	β	t	p	SPR^2
Perceived Stress	.262	3.83	.0002	.049	.339	4.96	.0002	.082
Depression	.266	3.86	.0001	.050	.329	4.79	.0001	.077
Health	.243	3.42	.0007	.042	.300	4.23	.0001	.064
Self-Esteem	.028	.377	.7069	.001	.348	4.64	.0001	.086
Anger Expression-I	.161	2.12	.0350	.018	.231	3.05	.0025	.038
Guilt	.054	.696	.4872	.002	.221	2.83	.0049	.035
Trait Anger	.055	.698	.4863	.002	.210	2.68	.0080	.031
Anger Expression-O	-.092	-1.14	.2539	.006	.153	1.91	.0576	.038

APPENDIX A

Prospectus

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN EXAMINATION OF THE RELATIONSHIP BETWEEN SELECT PSYCHOLOGICAL DIMENSIONS AND WORK-TO-FAMILY AND FAMILY-TO-WORK ROLE CONFLICT IN MEN AND WOMEN

Dissertation Proposal

SUBMITTED TO THE GRADUATE FACULTY

In partial fulfillment of the requirement for the

Degree of

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By

Kathleen Malchar Laster
Norman, Oklahoma
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CHAPTER ONE

Introduction

Interest in the impact of work and family role conflict on men's and women's well-being has catapulted in recent decades. Research that began in the 1960's has evolved to prolific proportions at the turn of the century and currently spans across a diverse range of topics and disciplines. This surge of interest is not misplaced as research has revealed that individuals and organizations alike are suffering from the effects of this conflict as men and women struggle to balance the increasingly competing demands of work and family roles. Changing demographics have been largely responsible for these increases in demands as men's and women's roles and values have shifted considerably over the past several decades. Traditional work models that depended on the man focusing exclusively on breadwinning and the woman concentrating solely on the home no longer apply to the majority of families. Significant increases in women's participation in the workforce, trends away from the traditional nuclear family model, and growing concerns about elder care due to longer life expectancies have placed unprecedented stressors on men and women in today's society. For the individual, the costs of these struggles may include increased stress and physical health risks, diminished performance of the parenting and paid-worker role, reduced life satisfaction, and poorer mental health. Organizations feel the impact in higher health costs, lower productivity, and turnover and retention concerns as decreasing labor markets deal with the realities of the aging "baby boomer" cohort. Given the widespread nature of work and family conflict, growing interest in studying its impact on well-being comes as no surprise. Research focused on better understanding the construct of work and family conflict and

its potential deleterious psychological effects on men and women could make an important contribution to the development of antidotal remedies aimed at improving quality of life, and thus, benefiting individuals and organizations alike.

Background of the Problem

Work-Family Conflict Construct

The construct of work-family conflict has been evolving over the past several decades. The construct was initially conceptualized based upon early theories of traditional interrole role conflict. Kahn, Wolfe, Quinne, Snoek, and Rosenthal (1964) defined role conflict as the "simultaneous occurrence of two or more sets of pressures such that compliance with one would make more difficult compliance with the other" (p. 19). Work-family conflict is a form of interrole conflict in which the role demands associated with the work or family domain is made more difficult given role enactment in the other domain (Greenhaus & Beutell, 1985). According to Greenhaus and Beutall, any role characteristic that affects a person's time involvement, strain, or behavior within a role can produce conflict between that role and another role, resulting in three major forms of work-family conflict: (a) time-based conflict (time expended in one role impedes performance in another role), (b) strain-based conflict (strain created in one role affects performance in another role), and (c) behavior-based conflict (role behaviors required in one sphere are incompatible with role behaviors in another). Over time, work-family conflict has evolved from being viewed as a global construct to two related, but distinct forms of interrole conflict: family-to-work conflict and work-to-family conflict (Duxbury & Higgins, 1994; Eagle, Miles & Icenogle, 1997; Frone, Russell, & Cooper,

1992, 1997; Gutek, Searle, & Kelpa, 1991; Kossek & Ozeki, 1998; Netemeyer, Boles & McMurrian, 1996).

Boundaries between work and family are asymmetrically permeable to the extent that the intrusion of demands from one domain into the other occurs with unequal frequency (Pleck, 1977). Pleck hypothesized that family demands would intrude into the work role more than the reverse among women because they assume primary responsibility for managing home-related demands and crises. In contrast, Pleck posited that work demands would intrude into the family role more than the reverse among men because they are more likely than women to take work home and are also more likely to use family time to recuperate from the stresses they face in the workplace. Numerous empirical studies have been conducted to test Pleck's hypotheses regarding asymmetrically permeable boundaries and gender differences. The overriding pattern of results has shown that work-to-family conflict is more prevalent than family-to-work conflict, suggesting that family boundaries are more permeable than work boundaries. Pleck's hypothesis that gender differences exist, however, has not generally been supported in study outcomes (Eagle et al., 1997; Frone et al., 1992; Gutek et al., 1991; Hall & Richter, 1992; Jones & Fletcher, 1993; Wiley, 1987).

Not surprisingly, considerably more research has generally been conducted on work-to-family conflict than family-to-work conflict (Netemeyer et al., 1996). Most early measures of work-family conflict focused on work interference with family (Greenhaus & Beutell, 1985). The majority of empirical findings tend to portray family participation as adversely influenced by work-related concerns (Burke & Greenglass, 1987 as cited in Eagle, 1997). Eagle et al. suggest that these results could be due to "people's inclination

to allow work to consume a disproportionate amount of their energies and attention in their pursuit to have it all" (p.180). Recently, however, as the construct of work-family conflict has become more refined and the bi-directionality of the construct has become clear, more studies have begun examining worrk-family conflict from both dirctions (e.g., Duxbury, Higgins, & Mills, 1992; Frone et al., 1992; Gutek et al., 1991).

Research examining the relationship between work-family conflict and psychological distress has increased substantially during the past decade. Work-family conflict has been linked to heightened psychological distress in numerous studies (Barling & MacEwen, 1992; Frone, Russell & Barnes, 1996; Frone, Russell & Cooper, 1991, 1992a; Hughes & Galinsky, 1994; Klitzman, House Israel & Mero, 1990; MacEwen & Barling, 1994; O'Driscoll, Ilgen & Hildreth, 1992; Parasuaman, Greenhaus & Granrose, 1992). Early research simply examined the relationship of work-to-family conflict (Bedeian, Burke, & Moffett, 1988; Burke, 1989) or overall work-family conflict (Bromet, Dew, & Parkinson, 1990; Rice, Frone, & McFarlin, 1992) to various health-related outcomes. In contrast, more recent research has begun to focus on the main-effect relations of both types of work-family conflict (work-to-family and family-to-work) to psychological health (Frone et al., 1996). In four out of six studies reviewed on this topic, some form of psychological distress was found to be positively related to both types of work-family conflict, providing a fairly consistent pattern of results (Frone et al, 1996; Hughes & Galinsky, 1994; Klitzman et al., 1990; MacEwen & Barling, 1994; O'Driscoll et al., 1992; Wiley, 1987). One of these studies failed to find a significant relationship between either type of conflict and overall life satisfaction (Wiley, 1987), and another

found that only family-to-work conflict was positively related to depression, with neither type of conflict related to physical symptoms (Klitzman et al., 1990).

Results from a four-year longitudinal study, conducted by Frone, Russell et al. (1997), support the conclusion that family-to-work conflict has a greater impact on an individual's physical and mental health over time than work-to-family conflict (although the authors warrant caution in making this assertion conclusively without further study). In a later unprecedented study by Frone (2000), the relationship between work-family conflict and more severe psychiatric disorders that may impair individuals' ability to function adequately at work or at home, was assessed. Results of this study suggested that both types of conflict are positively related to having a mood, anxiety, and substance dependence disorder, however, once again family-to-work conflict was found to be more strongly related to psychiatric disorders than work-to-family conflict by a significant margin. Specifically, individuals who experienced work-to-family conflict often were 3.13 times more likely to have a mood disorder, 2.45 times more likely to have an anxiety disorder and 1.99 times more likely to have a substance dependence disorder than were individuals with no work-to-family conflict. Individuals who experienced family-to-work conflict often were 29.66 times more likely to have a mood disorder, 9.49 times more likely to have an anxiety disorder, and 11.36 times more likely to have a substance dependence disorder than were individuals with no family-to-work conflict.

Frone (2000) suggested that these findings may be explained by differences in attributions of responsibility for the cause of work-family conflict. Individuals may attribute responsibility for work-to-family conflict externally to the demands and problems imposed by their work organizations. In contrast, individuals may attribute

responsibility internally for family-to-work conflict. Family demands that spill over into the workplace may be viewed by individuals as resulting from their own inability to effectively manage their family lives. Such differences in attributions of responsibility or blame may explain the difference in the relative strength of the association between the two types of work-family conflict and mental health. Frone (2000) did cite, however, a limitation to his study as less than ideal psychometric properties of a two-item measure of each type of work-family conflict.

It is important to note that although research findings clearly suggest that family boundaries are more permeable and that work-to-family conflict is more prevalent than family-to-work conflict, recent preliminary evidence indicates that family-to-work conflict appears to have a greater impact on an individual's psychological well-being. It may be that the prevalence of work-to-family conflict is a function of early measures unilaterally focusing on work-to-family conflict. Given recent improvements in the development of more sophisticated bi-directional measures, coupled with preliminary family-to-work conflict study outcomes, further study of family-to-work conflict and its relationship to psychological distress is certainly warranted.

In addition, measures defining psychological distress could be expanded beyond measures utilized historically. Psychological distress and/or adjustment has been defined in a variety of ways, most common of which include depression, anxiety, satisfaction, concentration difficulties, alcohol use, increased physical symptomology, and poor health (Barling & MacEwen, 1992; Frone et al., 1996; Parasuaman et al., 1992). Typically, only one to three measures of psychological distress have been included in any one study. Therefore, a battery of psychological dimensions studied simultaneously may shed

additional light on our understanding of work-to-family and family-to-work conflict in relation to psychological distress.

Gender Issues

A significant body of the work-family conflict literature has been devoted to gender issues. In a comprehensive review of the literature, Higgins, Duxbury and Lee (1994) cited numerous studies that have linked gender and work-family conflict (Barnett & Baruch, 1987; Duxbury, Higgins & Mills, 1992; Gutek et al., 1991; Jick & Mitz, 1985; Keith & Schaefer, 1980, 1991; LaCroix & Haynes, 1987; Pleck, 1985; Skinner, 1980; Voydanoff, 1988). Gender may affect one's ability to balance work and family responsibilities in several ways. Higgins et al. (1994) asserted that not only may it act as a direct predictor of the sources of conflict, but it may also act as a moderator that affects how the conflict is perceived, what coping skills are called upon, and how the conflict is manifested (Barnett & Baruch, 1987; Duxbury et al., 1992; Gutek et al., 1991; Pleck, 1985; Voydanoff, 1988; Jick & Mitz, 1985; Schnittger & Bird, 1990). Swanson (1992) cited the notable progress being made in thinking about work-family conflict as concerns for both men and women as one of the most important trends in the work-family conflict literature.

The focus on gender, however, initially centered on women. As women began entering the workforce in greater numbers during the 1960's, the prevailing view that women were accumulating additional roles and therefore, were most vulnerable to role strain according to traditional role conflict theory began to take hold. In the context of work-family conflict, the "scarcity hypothesis" assumes that women will have limited resources with which to meet the demands of the workplace, in addition to their already

significant role in the home (Barnett & Baruch, 1987). Three reasons have been suggested in the literature as to why women are more likely to experience work-family conflict than men. These include women's tendency to: (1) put family demands before personal needs (Bodin & Mitelman, 1983; Hoschchild, 1989; Jick & Mitz, 1985); (2) feel guilty and stressed if they perceive their role as provider imposes on their time as nurturer (Bodin & Mitelman, 1983); and (3) exhibit more concern if they perceive they are neglecting their partners (Duxbury & Higgins, 1994).

There is a substantial amount of empirical evidence that disputes the scarcity/overload hypothesis. Several theorists have argued that the benefits of multiple-role occupancy may far outweigh tensions due to overload and conflict (Marks, 1977; Seiber, 1974; Verbrugge, 1983; Thoits, 1983). This position has been based on the competing hypothesis about human energy, called the "expansion hypothesis" (Barnett & Baruch,1987). Marks (1977) and Sieber (1974), for example, have suggested that multiple role involvements can expand rather than constrict an individual's resources, rewards, energy, commitment, sense of ego gratification, and security, resulting in enhanced physical and psychological well-being. More recently, Greenglass (1995) posited that the more roles one occupies, the more potential sources of privilege, social status, and social identity one has, thereby enhancing one's self-esteem. On the whole, Greenberger and O'Neil (1993) concluded that "more support for the enhancement hypothesis than for the scarcity hypothesis has accumulated over the years" (p. 181).

Three models from the literature have received widespread acceptance and broad applicability in providing frameworks for understanding gender differences related to the

impact of work-family conflict (Higgins et al., 1994). These three models are the rational model, the gender role-expectations model, and the job-strain role model.

The rational view postulates that the amount of conflict one perceives rises in proportion to the number of hours one expends in both work and family roles (Greenhaus, Bedeian, & Mossholder, 1987; Gutek, et al., 1991; Keith & Schafer, 1984; Staines, Pleck, Shepard, & O'Connor, 1978). The rational view predicts that the total amount of time spent performing work and family roles is positively associated with role overload (Greenhaus & Beutell, 1985; Gutek et al., 1991). The gender role expectations theory is based on traditional sociocultural role expectations, which prescribe that men take primary responsibility for the breadwinner role, while women assume primary responsibility for the family (Galinsky, Friedman, & Hernandez, 1991; Hochschild, 1989; Schwartz, 1992; Lewis, 1992; Major, 1993; Thompson & Walker, 1989). According to Major (1993):

> Deeply ingrained norms about the priority of women's motherhood and homemaker roles and men's breadwinner roles may produce internal feelings of discomfort when women and men deviate too far from their internalized norms. They may also produce external sanctions in the form of disapproval by important others when individuals deviate from social norms. (p.150)

The job strain role model was posited by Karasek (1979) and provides a third framework for conceptualizing gender differences in work-family conflict. Karasek identified two key operating forces: role demands and control, and postulated that it is the combination of low control and heavy role demands that is consistently associated with high levels of stress. Karasek's model suggests that the amount of work-family conflict perceived by an employee will be associated with the employee's work and family-role demands and the amount of control he or she has over these demands.

Recently, gender issues have begun to focus more on men which has resulted in an explosion of research on men's familial experiences (Barnett & Marshall, 1991; Barnett, Marshall & Pleck, 1995; Crosby, 1987; Hood, 1993; Voydanoff, 1984). Two general waves of thought are present in the literature. The first is that men treat their job role as central to their psychological well being (Erickson, 1980; Levinson, 1978) and family roles as peripheral (Barnett et al., 1995). In this view, work comes to be seen as men's primary family role; the extent to which they provide is considered as their major contribution to their families (Moen, 1992). Evidence challenging this view is accruing, with an alternative view that suggests that family roles are critical to men's mental health (Barnett et al., 1995; Farrell & Rosenberg, 1981; Pleck, 1985; Veroff, Douvan & Kulka, 1981). Stueve, O'Donnell, and Lein (1980) pointed out that just as there are potential negative financial and security consequences for women who under-invest in paid employment, there may be negative consequences for husbands who under-invest in family life in the form of less contact and social support from their adult children. Pleck (1985) found that wives and husbands experience their family roles as far more psychologically significant than their paid work roles and that these family roles had greater positive impact on men's psychological well-being. Thus, these studies suggest that the broadly held view that men's psychological health is principally determined by their work role is found to be deficient; the quality of men's family roles contributes as strongly to their mental health as does their work role. Overall, the picture emerging from contemporary literature on men in family roles is of men who are intensely connected to their families and whose subjective well-being is significantly related to the quality of these connections.

Despite cultural and value shifts underway in men's family and work roles, the preponderance of empirical evidence shows that women experience higher levels of work-family conflict than men in their attempts to balance work and family demands (Duxbury & Higgins, 1991, 1994; Gutek et al., 1991; Voydanoff, 1988). Interestingly, however, studies measuring gender differences in psychological distress as it relates to work-family conflict have yielded mixed results. Frone et al. (1996) identified what appeared to be the only two studies examining gender differences in a bi-directional context (family-to-work conflict and work-to-family conflict) and psychological distress (Frone et al., 1992a; MacEwen & Barling, 1994). Frone et al. (1992a) found that the magnitude of the indirect influence of both types of work-family conflict on depression did not differ across men and women. MacEwen and Barling found evidence of gender differences in the magnitude of the relationships of both types of work-family conflict to depression and anxiety. Their pattern of results revealed that work-to-family conflict was more strongly related to both depression and anxiety among women than among men, whereas family-to-work conflict was more strongly related to the two outcomes among men than among women. Frone et al. (1996) attributed this inconsistency in findings to possible sampling error or the different nature of samples used in the two studies. Therefore, to provide a stronger test of gender's differential moderating effect, Frone et al. (1996) conducted a three-wave study using two large community samples. Although the authors reported no significant gender differences in the magnitude of the relationship between work-family conflict and health-related outcomes based on overall study results, a closer examination of the third wave study results identified one exception to this. These results reflected that the relationship between work-to-family conflict and

depression was stronger among men than among women. Carlson, Kacmar and Williams (2000) have suggested that the way in which conflict was measured may explain whether gender differences were found in past research studies (Eagle et al., 1997; Frone et al., 1992a; Pleck, 1977; Williams & Alliger, 1994). These authors further suggest that studying gender differences from a multidimensional perspective may provide important information about the strength and direction of various relationships related to gender and work-family conflict (Carlson et al., 2000). Additionally, many researchers have called for more sophisticated analyses of gender differences and similarities in outlining future research agendas (Lambert, 1990). It appears, therefore, that questions regarding the presence of gender differences in psychological distress experienced by men and women in relationship to work-to-family and/or family-to-work conflict remain largely unanswered. More studies that utilize sound bi-directional work-family instruments, that are based on sufficient and relevant samples, and that specifically target psychological dimensions, will advance current knowledge in this area.

In a somewhat different vein related to gender questions, it is intriguing to speculate as to why some preliminary, although admittedly sparse, results have indicated that psychological distress and work-family conflict may have a stronger relationship among men than women, despite reported higher levels of work-family conflict in women. These preliminary studies vary in terms of which direction of conflict is more highly associated with distress (i.e., work-to-family or family-to-work). As previously mentioned, MacEwen and Barling (1994) found a higher association between family-to-work conflict and psychological distress for men, whereas Frone et al.'s (1996) wave three study linked work-to-family conflict with higher depression levels for men.

Assuming that either type of conflict consistently resulted in more psychological distress in men given further study, several hypotheses could be generated to account for this phenomenon. First, men may be more impacted by work-family conflict because pressure to spend time and energy away from their jobs to tend to domestic or child care matters may significantly challenge them at the core of their breadwinner identity. This line of thinking is consistent with the gender role expectations theory that suggests that deviating too far from traditional role expectations may produce psychological discomfort. Alternatively, younger men may embrace a less traditional role identity and attitude and therefore, may not be as stressed by domestic pulls given a more liberal male role identity. Both hypotheses beg the question of whether men's sex-role attitudes affect the way men experience psychological distress in relationship to work-family conflict. Likewise, among women, sex-role attitudes may also affect the relationship between psychological distress and work-family conflict. To date, there appear to be no studies that have measured sex-role attitudes in relationship to work-family conflict in men and women. Such a study would also test some of the premises that support the gender role expectations theory.

Statement of the Problem

More research is needed to advance our understanding of the bi-directional nature of the construct of work-family conflict and its relationship to psychological distress in men and women, and particularly whether preliminary outcomes that suggest family-to-work conflict is more distressful hold up. Additionally, more conclusive evidence is needed to discern whether gender differences do indeed exist in relation to psychological distress and work-family conflict, given the mixed results in the literature. Inclusion of

sex-role attitude measures would further our knowledge regarding these potential gender differences and in particular, help shed light on recent reports of cultural shifts taking place in men's familial roles and values. Studies utilizing a more sophisticated and rigorously validated work-family measure are needed to shore up reported limitations of studies that bring into question study outcomes. Use of an instrument that is based upon theoretically and methodologically sound properties may help explain mixed results found in the past. Studies regarding psychological distress could be enhanced by utilizing a broader set of psychological measures than historically found in the literature.

The purpose of this study is three-fold. First, this study is intended to extend previous investigations of work-family conflict by examining relationships of both family-to-work and work-to-family conflict to a unique set of psychological variables. These variables include depression, suppressed anger, expressed anger, and trait anger, self-esteem, perceived stress, guilt, and psychosomatic symptoms. These specific variables were selected to represent a diverse collection of potential indicators of psychological distress that might be expected to relate to one or both types of work-family conflict. Some of these variables included in the study have been frequently examined in previous studies (e.g., depression, psychosomatic symptoms), while others have not (e.g. anger, guilt).

Depression has been the most frequently studied psychological dimension and has been consistently linked to work-family conflict. Given the high prevalence of depression sufferers, better understanding its relationship to both types of work-family conflict would be useful. While anger has been found to be associated with job stress, specific investigation of the relationship between work-family conflict and anger is warranted.

Further, more knowledge regarding the kind of anger experienced (i.e., internalized or externalized) might provide important insights into possible gender differences in the expression of anger as it relates to both types of work-family conflict. This difference is anticipated due to a widely advanced notion in the current theoretical literature that substantial differences exist in the way men and women experience and express anger (Newman, Gray, & Fuqua, 1999). According to Newman et al., women are thought to internalize/repress anger, whereas men tend to externalize/over-express anger. Additionally, the study of "trait anger" may shed some light on how an individual's propensity to feel anger is related to the severity and type of work-family conflict experienced. Self-esteem has been found in previous studies to relate to work-family conflict and will be examined again in this study as it relates to both types of work-family conflict. Similarly, previous studies have examined stress due to well-documented evidence in the health and psychology literature that stress is linked to poorer psychological and physical health. "Perceived" stress will be measured in this study as it would seem that an individual's phenomenological experience of stress would be most relevant to how one might experience work-family conflict. Guilt, as an independent construct, has not previously been measured in its relationship to work-family conflict. It has been chosen for inclusion in this study for two key reasons. First, a woman's guilty feelings about how time in her provider role impinges upon time in her nurturer role has been cited in the empirical literature as one of three main reasons why women have been found to experience higher levels of work-family conflict. Second, Frone (2000) hypothesized that family-to-work conflict is more distressful than work-to-family due to individuals' tendency to attribute blame to self when family matters interfere with work.

This suggests that people may experience different levels of personal responsibility and thereby, guilt, depending upon the type of conflict experienced. Finally, a measure of psychosomatic symptoms is included due to the common acknowledgement that stress related to work-family conflict may manifest itself in psychophysiological symptoms.

The second main purpose of this study is to examine whether or not gender differences exist in the individual relationships of these psychological variables with family-to-work and work-to-family conflict. The relationship of a linear combination of these variables with both types of conflict will also be examined. As an additional and somewhat independent component, the third and final purpose of this study is to examine the relationship of sex role egalitarian attitude with work-to-family and family-to-work conflict in men and women. To achieve these goals, this study will utilize a promising, new bi-directional measure of work-family conflict that has received positive reviews in the literature as having sound psychometric properties and for being based upon well-founded theoretical underpinnings.

CHAPTER TWO

An Examination of the Relationship Between Select Psychological Dimensions and Work-to-Family and Family-to-Work Role Conflict in Men and Women

Introduction

The traditional model of work that prevailed during the 1950's and 1960's is not working so well today. No longer are the days when men could focus 100% of their efforts and attention on paid work while women focused exclusively on the homefront. A cultural shift of unknown magnitude in its eventual effect on society is underway. Over the past three decades, there have been significant changes in society's ideas of gender, parenthood, and work identity (Beach, 1989 as cited in Eagle et al., 1997).

These changes have been precipitated by a number of significant demographic trends. Prior to the coming of the working age of the baby boom generation (individuals born between 1946 and 1964) in the 1960's to 1980's, women generally worked if they were single or poor. With the exception of the World War II years, the majority of married women with children, particularly young children, did not work if they had a working spouse (USDOL Women's Bureau, 1993). Current estimates project that between 1998 and 2008, the proportion of the total labor force comprised of women is expected to increase from 46% to 48%, up from about 33% in 1950. The number of women in the workforce is projected to grow 15 percent over the same period (between 1998 and 2008), while men will only see an increase in numbers of about 10 percent. (USDOL Women's Bureau, 2000).

The percentage of traditional nuclear families—husband as breadwinner; wife as breadmaker, caregiver, and nurturer of children—is shrinking, while the percentage of dual-worker families is increasing. According to the Bureau of Labor Statistics, only 13% of families fit the traditional model whereas in 61% of married couple families, both husband and wife work outside the home. More of these dual-earner families have young children at home; six out of every ten married women in the labor force have a child under the age of six, as compared to three in ten in 1970 (U.S. Department of Labor Women's Bureau, 1997). Thus, the majority of women with children in the U.S. today occupy both work and family roles (Collins, Hollander, Koffman, Reeve & Seidler, 1997).

Despite significant growth in dual-earner families, the proportion of all households occupied by married couples in 1993 was 56%, down sharply from 70.5% in 1970. The number of family households supported by persons with no spouse present more than doubled to 13.8 million in 1990, up from 6.7 million in 1970. Single-parent mother households increased from 15% in 1950 to 21% in 1990 (USDOL Women's Bureau, 1993). Moreover, there is a developing body of literature showing that with the increasing life expectancy in the U.S., employed adults will increasingly be faced with elder-care demands as well as childcare demands (Barling, MacEwen, Kelloway & Higginbottom, 1994; Scharlach, Lowe & Schneider, 1991 as cited in Frone & Yardley, 1996).

All of these trends combined have contributed to the emergence of work-family conflict as men and women try to balance the conflicting demands of work and family roles (Duxbury & Higgins, 1991). Women have become more involved and committed to

work outside the home, forcing a shift of priorities for men toward their family roles (Baruch & Barnett, 1986; Frone & Rice, 1987; Pleck, 1979, 1985). The old models of coordinating work and family life have been rendered inappropriate by a majority of the labor force (Lee & Kanumgo, 1984 cited in Duxbury & Higgins, 1991). Traditional rigid life course patterns have become increasingly flexible (Lopata & Norr, 1980 as cited in Frone & Rice, 1987). However, along with more freedom to assume a greater variety of social roles (family and work), comes a greater potential for interrole conflict, which both men and women must learn to manage (Frone & Rice, 1987).

It is no surprise that of all the topics concerning work-family interface, work-family conflict is one of the more popular areas of research (Gutek, Larwood & Stromberg, 1986 as cited in Frone & Rice, 1987). Stress created by work-family conflict has been correlated with a number of negative consequences for individuals and organizations alike. For the individual, these may include increased physical health risks, diminished performance of the parenting and paid-worker role, reduced life satisfaction and poorer mental health. Duxbury and Higgins (1994) reviewed numerous empirical studies that suggested negative consequences for organizations may include higher health costs, lower productivity in the form of increased tardiness, absenteeism, lower job commitment, poor morale, and difficulty attracting and retaining talented employees (Duxbury & Higgins, 1991; Greenhaus & Beutell, 1985; Kelly & Voydanoff, 1985; Near, Rice, & Hunt, 1978; Pleck, 1985; Pleck, Staines, & Lang, 1980).

While work-family conflict is not the sole underlying cause of job stress, it is certainly a contributor when there is a lack of fit at the interface of work and family roles which can influence an employee's health and health-related behaviors (Frone, Russell et

al., 1997). Job stress has often been labeled as one of the most serious occupational hazards of modern times (Jamal, 1999). Recent estimates of losses to the economy in the U.S. associated with job stress came in at $150 billion per year and worker compensation stress claims tripled from 1980 to 1986 (Dollard & Winefield, 1996). It has also been estimated that 12 percent of the U.S.'s GNP is lost due to stress-related absenteeism and turnover (Sui & Cooper, 1998). Sauter (1992 as cited in Spielberger & Reheiser, 1994) has observed that, each year in the U.S., "nearly 600,000 workers are disabled for reasons of psychological disorders" (p. 14), costing $5.5 billion in annual payments to individuals and their families. According to Jamal, work-related stress affects employee health, with 50-80% of all diseases being psychosomatic or stress-related in nature. Adverse consequences of "job" stress may take any of three individual forms: psychological, medical or behavioral. Common forms of psychological distress are depression, job burnout, anger, and sleep disturbances. Common forms of medical distress are backaches and headaches, ulcer disease and cardiovascular problems. Common forms of behavioral distress are substance abuse, violence and accident proneness (Sui & Cooper, 1998).

Along with concerns about holding down health costs, organizations are being faced with the prospect of losing talented men and women who are unable to cope with the dual demands of work and family. Baby boomers, who glutted the labor market with relatively highly educated new job seekers in the 1970s, are aging. Labor markets are beginning to be in short supply of entry-level educated workers as there was a much smaller cohort born in the late 1960s and 1970s. Organizations' level of accommodation to women's and men's family lives might make the difference in their competitiveness to attract the most talented workers (Higgins et al., 1994; Voyandoff, 1984).

Work-Family Conflict Construct Defined

Research in the work-family area has been evolving for several decades, but has become much more prolific in the past 10-15 years due to the contemporary demographic trends just mentioned (Frone, Yardley et al., 1997). A review of the literature reveals that the work-family research field is expansive in nature and covers a broad range of topics in many diverse disciplines (Lilly, Pitt-Catsouphes & Googins, 1997). This review will focus primarily on relevant literature regarding "work-family conflict". A variety of terminology has been used to describe work-family conflict which tends to make synthesis more difficult (Duxbury & Higgins, 1991). For instance, Greenhaus and Beutall (1985) provided a summary of studies in which a number of different terms for work-family conflict were used interchangeably. Work-family conflict has been called job-family role strain (Bohen & Viveros-Long, 1981; Keith & Schafer, 1980; Kelly & Voydanoff, 1985), work-family tension (Herman & Gyllstron, 1977), family/work role incompatibility (Jones & Butler, 1980), and interrole conflict (Kopelman, Greenhaus, & Connolly, 1983).

The construct of work-family conflict evolved out of early theories of traditional role conflict originally developed to account for men's behavior in formal workplace organizations. Kahn et al. (1964) defined role conflict as the "simultaneous occurrence of two or more sets of pressures such that compliance with one would make more difficult compliance with the other" (p. 19). Work-family conflict is a form of interrole conflict in which the role demands associated with either the work or family domain is made more difficult given role enactment in the other domain (Greenhaus & Beutell, 1985). Greenhaus and Beutall (1985) found that an examination of the literature suggests that

any role characteristic that affects a person's time involvement, strain, or behavior within a role can produce conflict between that role and another role. Based on this observation, they identified three major forms of work-family conflict: (a) time-based conflict, (b) strain-based conflict, and (c) behavior-based conflict. Time-based conflict is considered when the time devoted to one role makes it difficult to fulfill requirements of another role. This type of conflict includes concepts such as excessive work time role overload, schedule conflict, inflexibility of schedules, marital status, presence of children, and family size (Burke, 1989). Strain-based conflict is identified as when the strain created in one role affects one's ability to perform in another role. Strain-based conflict involves work and family stress, negative emotional spillover, and supportiveness of one's partner (Burke, 1989). Finally, behavior-based conflict results from incompatibilities between the role behaviors required in one sphere and behaviors in another sphere. An example of this type of conflict posed by Burke would involve the male managerial stereotype emphasizing competitiveness, aggressiveness and the control of emotions being in conflict with the supportive, expressive behaviors expected between family members. Piotrkowski (1979 as cited in Galinsky, Bond & Friedman, 1996)) differentiated structural and psychological conflict or interference. Structural conflict is the extent to which the demands of one role creates practical difficulty in managing the demands of the other, while psychological conflict is the transfer of moods from one domain to the other.

Frone, Yardley et al. (1997) identified two common themes that have emerged from the wide range of substantive issues encompassing the work-family interface, including (a) examining the relations of psychosocial work characteristics to family-

related outcomes, and (b) examining the relations of psychosocial family characteristics to work-related outcomes. In the past, these two themes have been largely examined separately, with the impact of family life on work receiving the least attention (Crouter, 1984; Marshall, 1992). Frone, Yardley et al. (1997) refer to an abundance of recent research producing contemporary models of work-family interface that take a more comprehensive, bi-directional approach into account and which places equal emphasis on work-to-family and family-to-work impacts (Adam, King, & King, 1996; Bedeian et al., 1988; Frone, Barnes, & Farrell, 1994; Frone et al., 1992a; Greenhaus & Beutell, 1985; Greenhaus & Parasuraman, 1986; Gutek et al., 1991; MacEwen & Barling, 1994; O'Driscoll et al., 1992).

Frone, Yardley et al. (1997) have developed and tested a model that appears to be the most recent and comprehensive attempt at integrating components of the work-family interface. This model extends prior work by Frone et al. (1992a). This contemporary model utilizes elements set forth by the classic stress paradigm model developed by House (1974 as cited in Barnett, Biener & Baruch, 1987), specifically the idea of antecedents and outcomes of conflict. Greenhaus (1988) suggested there are several advantages to viewing work and family issues within a stress perspective pointing out that many of the models utilized in the stress literature can be applied to work-family dynamics. The model proposed by Frone et al. (2000) is an important contribution to the literature on work-family conflict, as the field appears to have struggled from the lack of an integrated theory of work/family relationships (Voydanoff, 1988). The Frone et al. (1992a) model, predecessor to the Frone, Yardley et al. (1997) model, used work-family conflict as a key mediating variable to account for cross-role relations between the

domains of work and family. This model was unique in that it used a bi-directional conceptualization of work-family conflict that distinguished between work-to-family conflict and family-to-work conflict and in that it posited unique, domain-specific antecedents and outcomes of the two types of conflict. Frone, Yardley et al. (1997) extended the 1992 model in two important ways: (a) finer distinctions were made to include direct predictors (i.e., time-commitment, role-related dissatisfaction, and role overload) and indirect predictors (i.e., supervisor and co-worker support and spouse and family support) of work-family conflict; and (b) outcomes were further defined as work behavior and behavior intentions (work performance) and family behaviors and behavioral intentions (family performance). The original goal of providing a more detailed accounting than prior models of the complex reciprocal relations between work and family life were supported, on the whole, by results of their study.

Measurement of the Work/Family Role Conflict Construct

In defining the work-family conflict construct, discussion would be incomplete without a review of the development of instruments intended to measure the construct. Despite abundant research in the area of work-family conflict, serious ambiguity has historically existed regarding the nature of the construct, its measurement, and its relation to other variables (Allen, Herst, Bruck, & Sutton, 2000). For some time, researchers have consistently cited the lack of psychometrically sound work-family instruments utilized in their studies as limitations that potentially made questionable the validity of their study outcomes. In fact, in a recent meta-analysis of work-family conflict, Kossek and Ozeki (1998) suggested that inconsistencies found in work-family conflict measures often accounted for discrepancies in research outcomes.

In the past five years, however, researchers have begun to focus more seriously on the issue of inadequate measures. Allen et al. (2000) provided a thorough review of past work-family measures, tracing the history of various measures used over the past few decades. These authors provided examples of several measures utilized in various studies over time for which adequate reliability and validity evidence was never established. Their criticism included the use of one-item, adapted, and study-generated measures that lacked rigorous psychometric development, and measures that lacked in content adequacy. Carlson et al. (2000) suggested that the evolving nature of the work-family construct itself may partially account for the variety of ways in which work-family conflict has been previously measured. These authors acknowledged that researchers traditionally measured work-family conflict from a unilateral perspective. That is, most early measures focused on work interference with family (Greenhaus & Beutell, 1985). As the construct was refined, it became clear that work-family conflict was bi-directional and many studies began to utilize the study of work-family conflict from both directions, work-to-family and family-to-work (e.g., Duxbury et al. 1992; Frone et al., 1992a, Gutek et al., 1991). Also, recently researchers have begun to take into consideration the different "forms" of work-family conflict as put forth by Greenhaus and Beutell (1985): time-based, strain-based, and behavior-based conflict (Carlson et al., 2000; Netemeyer et al., 1996; Stephens & Sommer, 1993). In another comprehensive review of work-family measures, Netemeyer et al. (1996), concisely summarized inadequacies of past work-family conflict measures as follows: (a) the obvious inadequacies of one-item measures of the work-family construct; (b) overly lengthy and cumbersome measures which lacked in sufficient psychometric validation; (c) global measures which ignored the conceptual

bi-directional distinction, work-to-family and family-to-work conflict; (d) bi-directional measures which failed to measure the actual construct of work-to-family and family-to-work conflict and instead measured outcomes of the conflict; and (e) measures which were not subjected to rigorous scale development with respect to construct validity.

In 1996, two separate noteworthy efforts at developing a work-family conflict measure were published. Stephens and Sommers (1996) developed a 14-item work-to-family conflict instrument that was the first to include in its item development the three major forms of work-family conflict: time, strain, and behavior based conflict (Greenhaus & Beutall, 1985). The developers lauded their instrument as improved over previous instruments based on its theoretically and methodologically sound properties. They cited limitations to their study as having a predominantly female, white collar sample and only being a measure of work-to-family conflict. They suggested that future research include the development of a family-to-work measure. Further, they suggested that the relationship between age and behavior-based conflict be explored to determine if attitudinal differences in various age cohorts affect behavior and severity of conflict.

The second major effort was conducted by Netemeyer et al. (1996). These researchers developed a short 10-item bi-directional self-report measure of work-family conflict that was scrutinized rigorously with respect to construct validity by comparing work-family conflict items to a number of off-job and on-job constructs. This represented an improvement over past measures that possessed adequate content validity and internal consistency, but about which little was known regarding their construct validity. Further, the developers reported that even when compared to measures comprised of multiple items representing work-to-family and family-to-work conflict as separate constructs,

their measure consistently demonstrated stronger correlations with job satisfaction, organizational commitment, job tension, and life satisfaction. Although the authors incorporated aspects of time- and strain-based conflict into their items, they failed to include items tapping behavior-based conflict in their instrument. In addition, the instrument was only comprised of two broad scales, one assessing work-to-family conflict and the second assessing family-to-work conflict. Thus, the instrument has been criticized for its failure to produce multidimensional assessments (time-, strain-, and behavior-based conflict) of work-to-family and family-to-work conflict.

Carlson et al. (2000) answered the call for a multidimensional measure of work-family conflict. These researchers developed an 18-item self-report work-family conflict measure yielding six dimensional and two global scales. The six dimensions of conflict measured include the combination of three forms of work-family conflict (time, strain, and behavior) and two directions of work-family conflict (work interference with family and family interference with work). One of the strengths of the instrument is its brevity (a total of 18- items). Each of the six subscales consists of only 3 items each. Additionally, the validity and reliability of the instrument was supported over three studies using five different samples. The content validity of items included in the final instrument was established through an extensive scale development process. The factor structure of the instrument was found to be invariant and each of the scales differentially related to various antecedents and consequences of work-family conflict, further suggesting construct validity of the scales. Coefficient alphas for the six subscales ranged from .78 to .87. Coefficient alphas were not reported, however, for the global 9-item work-to-family conflict and family-to-work conflict scales. Also, based on the intercorrelation of several

subscales, there is some question about the degree of independence of dimensions represented on the instrument. For example, correlations among some subscales ranged as high as .76 and .83. As acknowledged by Carlson et al., the scale needs additional validation across different organizations and occupations to further examine the generalizability of scores derived from its use. Despite these limitations, however, in their critical review of work-family conflict measures, Allen et al. (2000) refer to this new multidimensional instrument as "most promising" (p. 286).

Other Relevant Work/Family Concepts

Asymmetrically Permeable Boundaries Concepts

In a classic paper written on work-family dynamics, Pleck (1977) introduced the notion of asymmetrically permeable boundaries between the life domains of work and family. Boundaries between work and family are asymmetrically permeable to the extent that the intrusion of demands from one domain into the other occurs with unequal frequency. For example, if work demands and responsibilities are more likely to interfere with home life than vice versa, work and family boundaries are asymmetrically permeable with family boundaries being more permeable than work boundaries. In addition to suggesting that work and family boundaries may be asymmetrically permeable, Pleck proposed that there would be gender differences in the pattern of asymmetry. Specifically, he hypothesized that family demands would intrude into the work role more than the reverse among women because they assume primary responsibility for managing home-related demands and crises. In contrast, Pleck posited that work demands would intrude into the family role more than the reverse among men

because they are more likely than women to take work home and are also more likely to use family time to recuperate from the stresses they face in the workplace.

Pleck's asymmetrically permeable boundaries concept has received consistent support in empirical studies, although his hypothesis that gender differences exist has not generally been supported. Hall and Richter (1988) reported that home boundaries were more consistently permeable than work boundaries among both men and women, and that there were no gender differences in the pattern of asymmetry. Wiley (1987) conducted a study of work-family conflict in which she assessed both the degree to which work interfered with family and the degree to which family interfered with work. Her results reveal that the mean level of work to family conflict (M = 2.48) was higher than the mean level of family to work conflict (M = 2.13). However, Wiley did not test whether this difference was statistically significant, nor did she report means separately for males and females. However, the pattern of overall means is consistent with Hall and Richter's (1988) conclusion that family boundaries are more permeable than work boundaries. In 1992, Frone et al. conducted a study to test Pleck's hypothesis using data obtained from a randomly drawn community sample of employed adults. Results revealed that both genders reported experiences of work-to-family conflict nearly three times more often than experiences of family-to-work conflict. However, the results of their study once again failed to support Pleck's hypothesis that there are gender differences in the pattern of asymmetry. They did find, consistent with other researchers, that work-to family conflict is more prevalent than family-to-work conflict, suggesting that family boundaries are more permeable to work demands than are work boundaries to family demands. Findings from a study conducted by Williams and Alliger (1994), whereby participants

recorded daily ratings of work-family conflict, replicated those of Frone and colleagues (1992) and failed to support Pleck's hypothesis related to gender differences. William and Alliger's study revealed that women displayed stronger spillovers from family-to-work than did men, but also displayed stronger spillovers from work to family. These results suggested that spillover is stronger in both directions for women than for men. Finally, Jones and Fletcher (1993), Eagle et al., (1997), and Gutek et al., (1991) all similarly concluded that work-to-family conflict is more prevalent than family-to-work conflict.

Bidirectionality of Work-to-Family and Family-to-Work Constructs

Over the past decade, work-family conflict has evolved from being viewed as a global construct to two related, but distinct forms of interrole conflict: family-to-work conflict and work-to-family conflict (Duxbury & Higgins, 1994; Eagle et al., 1997; Frone, Russell, & Cooper, 1992, 1997; Gutek et al., 1991; Kossek & Ozeki, 1998; Netemeyer et al., 1996). Although definitions of work-family conflict (Greenhaus & Beutell, 1985) reflect that it is a bi-directional construct (i.e., work can interfere with family life and family life can interfere with work), most studies have either assessed work-to-family or family-to-work conflict only or have used globall measures that cnfound the two types of work-family conflict (Frone et al., 1996).). Netemeyer et al. (1996) have defined work-to-family conflict as a form of interrole conflict in which the general demands of time devoted to, and strain created by, the job interfere with performing family-related responsibilities. Problems arise when work-role activities impede performance of family responsibilities (e.g., long hours in paid work prevent the performance of duties at home). Family-to-work conflict has been defined by Netemeyer

et al.(1996) as a form of interrole conflict in which the general demands of time devoted to, and strain created by, the family interfere with performing work-related responsibilities. In this type conflict, family-role responsibilities hinder performance at work (e.g., a child's illness prevents attendance at work). In general, considerably more research has been conducted on work-to-family conflict than family-to-work conflict (Netemeyer et al., 1996).

Most of the empirical findings have tended to depict family involvement as adversely influenced by work-related concerns (Burke & Greenglass, 1987 as cited in Eagle et al., 1997). Some of the more salient dysfunctional influences of work demands on family life have included increased family distress and depression (Frone et al., 1992a), decreased global well-being (Pleck, 1985) and spousal well-being (Burke, Weir, & DuWors, 1980 as cited in Eagle et al., 1997), increased marital tension (Brett, Stroh, & Reilly, 1992 as cited in Eagle et al., 1997) and decreased family satisfaction (Kopelman et al., 1983). Eagle et al. (1997) suggest that these results have important implications for theories concerning the balance of work and home life:

> Perhaps because people *allow* work to consume disproportionate amounts of their energies and attention, this frustrates their pursuit to "have it all" or to be mutually fulfilled in both domains. In addition, employers' unrealistic expectations that employees would make familial sacrifices have led to career changes with expectations of an enhanced quality of life (p. 180)

They cite, for example, a study by Winn (1995) reflecting that many women have left corporate life and started their own enterprises with the belief that small business ownership would better accommodate their child rearing responsibilities because of greater flexibility.

Role Overload/Scarcity Hypothesis/Spillover Model

For several decades, sociologists have associated multiple roles with harmful consequences for the individual. The greater the number of roles, the greater the potential for role conflict or overload, and therefore the greater the risk of related physical and psychological difficulties (Coser, 1974; Goode, 1960). This position rested on an underlying premise called the "scarcity hypothesis" first put forth by Goode and extended by Coser, and others. According to the scarcity model, people do not have enough energy to fulfill their role obligations; thus role strain is normal and compromises are required. This approach suggests that role demands of work and home be viewed as additive, with occupation of multiple roles leading to conflicts, stress and strain due to "overload" (Greenhaus & Parasuraman, 1986; Sekaran, 1983). The scarcity hypothesis is one of the most common approaches found in the literature to explain the competitive relationship between work and home demands, and has received empirical support through a number of studies, a few of which are mentioned here. In the 1977 *Quality of Employment Survey* (Quinn & Staines, 1979), twenty-seven percent of all respondents cited work schedules that interfered with family life as a significant problem. Additionally, eight percent had a problem with excessive hours and ten-percent found overtime problematic. In a 1984 study of 200 public school teachers, feelings of role conflict increased respectively for those who were single, married with no children, and married with children (Cooke & Rousseau, 1984). Both men and women acknowledged being affected by conflicts arising from multiple roles of employee, spouse and parent in a national survey of 2257 engineers in the U.S. (Jagacinski, LeBold & Linden, 1987). Literature reviews often refer to the "spillover" model to explain the interactive nature of

work and nonwork roles. The effects of one role are expected to interfere or "spill over" into the other. Two studies supported the existence of negative—but not positive—spillover effects (Barnett, Marshall, & Sayer, 1992; Hughes & Galinsky, 1994).

Expansion Hypothesis

There is a substantial amount of empirical evidence that disputes the scarcity/overload hypothesis. Several theorists have argued that the benefits of multiple-role occupancy may far outweigh tensions due to overload and conflict (Marks, 1977; Sieber, 1974; Thoits, 1983; Verbrugge, 1983). This position has been based on the competing hypothesis about human energy, called the "expansion hypothesis" (Barnett & Baruch, 1987). Marks (1977) and Sieber 1974), for example, have suggested that multiple role involvements can expand rather than constrict an individual's resources, rewards, energy, commitment, sense of ego gratification, and security, resulting in enhanced physical and psychological well-being. More recently, Greenglass (1995) posited that the more roles one engages in, the more potential sources of self-esteem, privilege, social status, and social identity one has. On the whole, Greenberger and O'Neil (1993) concluded that "more support for the enhancement hypothesis than for the scarcity hypothesis has accumulated over the years" (p. 181).

Both cross-sectional and longitudinal research tends to support the expansion model of multiple-role involvement (Barnett, 1994; Baruch & Barnett, 1986), which implies that women's involvement in multiple roles is health-enhancing due to the benefits associated with employment. These include financial gain, access to a wider social network, an increased sense of autonomy, and job satisfaction. Long and Porter, (1984 as cited in Aston & Laver, 1993) asserted that whereas experiences and skills that

women accrue through being mothers and homemakers are largely unrecognized and underestimated, employment can provide a sense of personal competence that contributes to self-esteem. Wiersma (1990) noted that other research suggests that multiple roles can make life more varied and therefore more interesting and purposeful, bring extra money into the household and provide a buffer against distress generated by one particular role (Cooke & Rousseau, 1984; Hall & Hall, 1979; Pleck et al., 1980). Empirical studies comparing employed women to homemakers have revealed higher levels of physical well-being (Verbrugge, 1986), psychological well-being (Thoits, 1983), and life satisfaction (Stewart & Salt, 1981) among employed women. Researchers have found that, other factors being equal, employed married women and men have lower stress levels than single or unemployed men and women (Gore & Mangione, 1983; Thoits, 1983). Waldron and Jacobs (1989) found that in a longitudinal study multiple role involvement was associated with better health trends. La Croix and Haynes (1987) found that working women tended to exhibit more favorable physical health characteristics than women who were not employed, including fewer sick days off and better self-reported health status. Overall, employed women enjoy better health on both subjective and objective health status indicators. According to results from a National Health and Nutrition Examination Survey, employed women have a greater sense of well-being and lower use of professional services to cope with mental health problems than non-employed women (Rubenstein, 1992 as cited in Collin et al, 1997). Further, a 1995 Louis Harris survey found that 56% of American women do not want to give up either home or work duties despite severe time pressure. This study suggests that working women

embrace both breadwinner and caregiver responsibilities (Mathews, 1995 as cited in Collins et al., 1997).

Moderating Influence of Gender

Higgins et al. (1994) provided a review of a significant body of literature linking gender and work-family conflict (Barnett & Baruch, 1987; Duxbury & Higgins, 1991; Gutek et al., 1991; Jick & Mitz, 1985; Keith & Schaefer, 1980, 1991; LaCroix & Haynes, 1987; Pleck, 1985; Skinner, 1980; Voydanoff, 1988). Gender may influence one's ability to balance work and family in a number of different ways. Not only may it act as a direct predictor of the sources of conflict, but it may also act as a moderator that affects how the conflict is perceived, what coping skills are called upon, and how the conflict is manifested (Higgins et al., 1994).

Early Focus on Women

As women began entering the workforce in greater numbers during the 1960's, the prevailing view that women were accumulating additional roles and therefore, were more vulnerable to role strain according to traditional role conflict theory began to take hold. Thus, it is not surprising that most studies to date, not to mention the popular press, have focused on the impact of role conflicts and overloads on women (Swanson & Power, 1999). In the context of work-family conflict, the scarcity hypothesis assumes that women will have limited resources with which to meet the demands of the workplace, in addition to their already significant role in the home (Barnett & Baruch, 1987). Three reasons are suggested in the literature as to why women are more likely to experience work-family conflict than men. These include women's tendency to: (a) put family demands before personal needs (Bodin & Mitelman, 1983; Hoschchild, 1989; Jick &

Mitz, 1985); (b) feel guilty and stressed if they perceive their role as provider imposes on their time as nurturer (Bodin & Mitelman, 1983); and (c) exhibit more concern if they perceive they are neglecting their partners (Duxbury & Higgins, 1994). Pleck (1985) coined the phrase "role overload hypothesis," a hypothesis made up of popular thinking and prevalent views expressed in the literature in the mid-1980's on the division of family work in two-earner couples. Pleck held that his role overload hypothesis was derived from traditional sex role ideology and husbands' low psychological involvement in the family. He suggested that traditional sex role ideology was "inequitable and a source of conscious dissatisfaction to wives, and injurious to their well-being," (p. 24). "The five propositions that comprise the 'role overload hypothesis' are as follows:

1) The division of family work is inequitable, in that husbands do not do more housework and child-care when their wives are employed, and employed wives spend more time in the sum of their work and family roles than do their husbands.
2) Traditional sex role ideology is a major determinant of the division of family work.
3) Most wives want their husbands to do more family work.
4) Employed wives' role overload has negative consequences for their well-being.
5) Husbands are much more psychologically involved in their paid work role than in the family role" (page 23).

Gender Based Models

In reviewing work-family conflict as it relates to gender, Higgins et al. (1994) reviewed three models from the literature that have received widespread acceptance and which have broad applicability in providing frameworks for understanding gender differences related to the impact of work-family conflict. These three models are the rational model, the gender role-expectations model, and the job-strain role model.

The rational view postulates that the amount of conflict one perceives rises in proportion to the number of hours one expends in both work and family roles (Greenhaus et al. 1987; Gutek, et al., 1991; Keith & Schafer, 1984; Staines et al., 1978). The rational view predicts that the total amount of time spent performing work and family roles is positively associated with role overload (Greenhaus & Beutell, 1985; Gutek et al., 1991). Research indicates that employed women spend many more hours than employed men on family and household chores and more hours on work and family activities in total (Hochschild, 1989; Piotrkowski, Rapoport, & Rapoport, 1987; Pleck, 1979, 1985; Rexroat & Shehan, 1987; Voydanoff, 1988). Pleck (1979) for example, found that employed husbands spend about half the time employed wives spend on housework and two-thirds the time they spend in child-care. Using 1976 data from the Panel Study of Income Dynamics, Rexroat and Shehan (1987) found that women did approximately 70% of the family work. Most couples divide domestic work along traditional gender lines where both partners work full time (Karambayya & Reilly, 1992 as cited in Swanson & Power, 1999). Even when women are engaged in high status professions that pay well, they still shoulder a greater proportion of child-care and household labor than do men (Apostal & Helland, 1993; Demo & Acock, 1993 as cited in Phillips-Miller et al., 2000). Men, on the other hand, tend to spend more hours in paid employment than women (Duxbury et al., 1992; Pleck, 1985; Voydanoff, 1988), although the gender difference in time devoted to child care and household tasks exceeds the gender difference in time devoted to paid employment (Pleck, 1985; Rodgers, 1992 as cited in Frone & Yardley, 1996).

Gender role expectations theory is based on traditional sociocultural role expectations, which prescribe that men take primary responsibility for the breadwinner role, while women assume primary responsibility for the family (Galinsky et al., 1991; Hochschild, 1989; Lewis, 1992; Major, 1993; Schwartz, 1992; Thompson & Walker, 1989). Major (1993) stated that:

> Deeply ingrained norms about the priority of women's motherhood and homemaker roles and men's breadwinner roles may produce internal feelings of discomfort when women and men deviate too far from their internalized norms. They may also produce external sanctions in the form of disapproval by important others when individuals deviate from social norms (p.150).

This theory suggests that role expectations will affect men's and women's perceptions of work-family conflict differently (Gutek et al., 1991). It predicts that hours spent working in the opposite sex's domain ought to have a greater psychological impact on a person's perceptions of work-family conflict than hours spent in his or her own domain (Gutek et al., 1991). The impact of gender differences in sex-role socialization is apparent in studies examining the allocation of time to work and family roles among men and women. As previously mentioned, this research suggests that men devote more time than women to paid employment and that women devote more time than men to childcare and household tasks (Dean, 1992; Pleck, 1985; Rodgers, 1992).

The job strain role model was posited by Karasek (1979) and provides a third framework by which to predict gender differences in work-family conflict. Karasek identified two key operating forces: role demands and control, and postulated that it is the combination of low control and heavy role demands that is consistently associated with high levels of stress. Karasek's model suggests that the amount of work-family conflict perceived by an employee will be associated with the employee's work and family-role

demands and the amount of control he or she has over these demands. The research literature has consistently reported that women's work and family-role demands are higher than men's (e.g., Pleck, 1985; Rexroat & Shehan, 1987). The literature also indicates that men have more control over the distribution of their time, which, in turn, should make it easier for them to satisfy both work and family expectations. By way of explanation, men have traditionally perceived that they can fulfill their family-role expectations simply by being a good provider, without having to meet many additional demands within the home (Barnett & Baruch, 1987). In short, although work and family demands may compete for a man's time, they are experienced as mutually supportive (Barnett & Baruch, 1987). Therefore, men experience the two domains with greater interdependence than women (Simon, 1995).

Women, on the other hand, are unable to take time away from the work role to satisfy family expectations (Barnett & Baruch, 1987). Professional women are expected to be committed to their work "just like men" at the same time that they are customarily required to give priority to their family roles. As a result, women do not have the same control over the distribution of their time as men because the time spent satisfying work or family expectations is mutually exclusive. (Duxbury & Higgins, 1991; Higgins et al., 1994). Recent findings by Apostal and Helland (1993) and Steil and Weltman (1992) suggest that women were perceived to have less control over resources for coping with job stress, less influence over their work environments and their male colleagues, and less power in marital relationships to bring about a more equitable distribution of child-care and household responsibilities. This can result in feelings of inadequacy for women as parents and spouses because, as a result of employment, they are not continuously

available to their children and husbands (Simon, 1995). These self-perceptions can lead to increased experiences of job stress, role overload, and subsequent depression (Greenberger & O'Neil, 1993). Gender differences in self-evaluations in these highly important role domains can, therefore, play a crucial role in sex differences in mental health among employed married parents (Simon, 1995).

Female Adaptation and Coping Strategies

Empirical results have consistently shown that women experience higher levels of work-family conflict than men in their attempts to balance work and family demands (Duxbury & Higgins, 1991, 1994; Gutek et al., 1991; Voydanoff, 1988). In efforts to ameliorate this level of conflict, employed women have made choices concerning family and professional pursuits that have significant personal costs associated with them. Research has already established that women who prepare for demanding professions are affected much more than men regarding marriage, time of marriage, and when or if to have children (Arnold, 1995 as cited in Phillips-Miller et al., 2000). For example, many high achieving women opt not to have a family, choosing instead to devote their time and energy to their careers, a choice that the majority of men do not even have to think about (Greenglass, 1995). Among managers and professionals alike, empirical studies show that women are less likely to marry and to have children than their male counterparts (Greenglass, 1990; Greenglass, Burke & Ondrack, 1990). According to Devanna (1987), Kane, Parson and Associates polled 197 women executives from 67 corporations in 17 cities. Sixty-three percent of these women said that in order to be successful they gave up their marriages, family plans, time with their families, and social relationships. On the other hand, Devanna noted *The Wallstreet Journal* reported that male managers tend to

marry once and stay married. In a survey of 1700 male managers, 95% said they are currently married, and 89% said they have been married only once (Davanna, 1987). Another study revealed that two-thirds of women under forty who were top-level executives in large companies were childless, while virtually all male executives under forty were fathers (Rosen, 1991 as cited in Collin et al., 1997). Census data indicates that 17.5% of women 40-44 years of age in 1995 had not had a child, compared to 10.2% in 1975 (USDOL Women's Bureau, 2000).

Another strategy women use to advance at work and compete with their male counterparts is to delay having children until their career is established (Schwartz, 1992 cited in Higgins et al., 1994). This is an example of what Voydanoff (1989) described as sequential role staging (versus simultaneous role staging where individuals perform both work and family roles over the adult life course). Sequential role staging is the most common type of labor force participation among women, which involves adjustment to demands associated with family career stages, especially childbearing. Data presented in Higgins et al.'s (1994) study suggest that this strategy may, in fact, stall the career progression of many professional women rather than advance it. The time period where these women will have dependent children at home (and hence the greatest difficulties in balancing work and family) will coincide with a period of maximum career visibility. They will have to interrupt their career at a point when they are being recognized as potential high achievers. Women may be better off having their children when they are younger, before starting their career. When their children are older (e.g., 13 years of age), they can then focus on their careers with less interference. This view is considered a "slow burn" approach to career development (proposed by Bailyn, 1980) in which the

early career years would require only moderate levels of job involvement with assignments that are less demanding and intrude less severely into employees' family lives. Then, over time, more challenge, responsibility, and involvement can be introduced as employees' family responsibilities begin to subside.

Schuster (1990 as cited in Napholz, 1994) reported that despite women's increased education and broader involvement in the workforce, women still hesitate to seek careers in traditionally male-dominated fields, do not advance in most career fields as rapidly as their male counterparts, and do not feel particularly adequate in their pursuit of multiple roles in adult life. Phillips-Miller et al. (2000) underscored the point that some researchers believe women make conscious choices about how to use their professional skills based on the demands of family life and whether or not they can count on their husbands/partners to be full participants at home (Arnold, 1995; O'Connell, Betz, & Kurth, 1989). The female is likely to be the partner expected to adapt her career pattern to fit in with family demands (Swanson & Power, 1999). Women are still having difficulty negotiating successfully for full partnerships at home, which may influence the work environments they select and require them to find many ways to cope with the inequities that exist (Phillips-Miller et al., 2000). For example, in a study of 242 married veterinarians, Phillips-Miller et al. found that female veterinarians had half as many children, worked more often on a part time basis, took more frequent and longer career breaks, and worked less hours on average per week than their male counterparts. In more recent studies that focus on the benefits of part-time versus full-time employment for women, the evidence is mixed. Some researchers found that part-time employment

reduced role strain and other types of distress (Rosenfield, 1989), whereas other researchers failed to detect such effects (see Repetti, Matthews, & Waldron, 1989).

The Male Perspective

Several streams of literature, both theoretical and empirical, treat the job role as central to men's psychological well being (Erikson, 1980; Levinson, 1978) and family roles as peripheral (Barnett et al., 1995). For men, the core assumption has been that work is the very essence of what makes them men (Cohen, 1987). Additionally, work is portrayed as the activity to which men attach the most importance. They are seen as deeply psychologically involved in their work roles (Pleck, 1985) or as displaying considerable "role attachment" (Goffman, 1966 as cited in Cohen, 1987) to their paid work. Accordingly, the workplace is the arena in which men struggle to establish their identities and in which they measure their success and failure (Erikson, 1980; Levinson, 1978; Vaillant, 1977). Work comes to be seen as men's primary *family* role; the extent to which they provide is considered as their major contribution to their families (Moen, 1992).

Recently, evidence challenging this view has accrued, which suggests that family roles are critical to men's mental health (Barnett et al., 1995; Farrell & Rosenberg, 1981; Pleck 1985; Veroff et al., 1981;). Overall, the picture emerging from recent literature on men in family roles is of men who are intensely connected to their families and whose subjective well-being is significantly related to the quality of these connections. Farrell and Rosenberg (1981), in their major study of 500 randomly selected men, reported they were surprised to discover the powerful impact of family relations on the experiences of men at midlife. Using a national probability sample, the authors of *The Inner American*

(Veroff et al., 1981) reported that male respondents who held all three roles of spouse, parent, and paid worker rated family roles as more critical than occupational roles. Stueve et al. (1980) posited that just as there are potential negative financial and security consequences for women who under-invest in paid employment, there may be negative consequences for husbands who under-invest in family life in the form of less contact and social support from their adult children. Pleck (1985) found that wives and husbands experience their family roles as far more psychologically significant than their paid worker roles and that these family roles had greater positive impact on men's psychological well-being than their worker roles. Barnett et al. (1995) found in a study of white, predominantly middle-class, married men that the quality of men's work roles and the quality of their family roles contributed equally to their psychological health. Thus, these studies suggest that the broadly held view that men's psychological health is principally determined by their work roles is deficient; the quality of men's family roles contributes as strongly to their mental health as do their work roles.

It must be recognized that increased family participation may impose costs for men as well as benefits. According to Pleck (1985), men who participate more directly in their families must be, on the average, less productive and ambitious in their paid work. There may be a few "supermen" who, like the equally small minority of "superwomen," are able to combine extraordinarily high levels of involvement in both roles. But these minorities are inappropriate as models for the large majority of average men and women. Realignment of work and family roles between the sexes and within each sex is now underway in our society, and specifically the enlargement of men's family role. This means that we must accept a considerable decrease in men's current breadwinner

responsibility, and a sharing of this responsibility with women going far beyond current social attitudes (Pleck, 1985).

Men's increased involvement with their families has resulted in an explosion of research on men's familial experiences (Barnett & Marshall, 1992, Barnett et al., 1992; Crosby, 1987; Hood, 1993; Voydanoff, 1984). It has to be recognized that the work-family interface is not the special province of women (Moen, 1992; Kinnunen, Gerris, & Vermulst, 1996). Many men are adapting to increased family role expectations when both husband and wife are employed. This may, in part, be due to a greater, mutual empathy couples share (Eagle et al., 1997). This empathy may have been created from a decrease in time as a resource of each spouse to spend in their respective, traditionally occupied domains in the interest of gaining monetary resources. Pleck (1985) noted that as men are gradually taking on more household duties, they are also increasingly experiencing the pressures of dual allegiance that women have endured for some time. Wohl (1989) stated that "the attitudes of men concerning work and family issues are rapidly approaching those of women, a significant change over...just four years ago" (p. 183). Higgins et al. (1994) found that 1990-92 data collected in a recent study indicated that, in comparison to samples studied in the 1970s and 1980s, the amount of time dual-income mothers devote to home chores and child care is lower, while men's time is higher. The higher level spent by men is probably due to changing values and increased pressure from wives to contribute more.

In 1985, Pleck identified the beginning of a value shift in culture toward greater family involvement by fathers. He proposed that "possibly wives' rising rates of employment had stimulated a change in social values about fatherhood which has brought

about an increase in paternal involvement among *all* groups of fathers—both fathers whose wives are employed and fathers whose wives are not" (Pleck, 1985, p. 151). Supporting this notion, Daly (1996) concluded from results of a qualitative study of 32 fathers from intact families that:

> Whereas the previous generation of fathers was perceived to be inattentive to matters of spending time with the children, this generation expresses a strong, family-based temporal conscience that keeps them vigilant in their fathering commitments. The value of spending time with the children has not been inherited from their own fathers but, rather, has been embraced in response to a new set of cultural conditions (p. 473).

Thus, the term "new father" has recently been coined in the literature referring to men who embrace an increasingly involved paternal role (Daly, 1996; Kinnunen et al., 1996). Surveys conducted in the late 1980's further suggest that fatherhood is being increasingly embraced. A 1989 *New York Times* survey of mothers and fathers with children under age 13 revealed that 83% of the mothers and 72% of the fathers felt torn between the demands of their jobs and wanting to spend more time with their families at least sometimes. In a 1986 *Fortune* survey of four hundred men and women with children under twelve, fathers were almost as likely as mothers to say that the job interferes with family life and somewhat more likely to claim that they would sacrifice career opportunities that would cost them time away from their family (although less than a third of either group felt this way) (Kanter, 1989). Along the same line, another survey indicated that over 40% of parents had refused a job or promotion to spend more time with their children (Workplace Flexibility, 1993 cited in Stephens & Sommer, 1996).

Duxbury and Higgins (1991) reported that gender differences observed in antecedents and consequences of work-family conflict do not support the idea that there have been significant changes in society's perception of gender-specific work and family

role responsibilities over the past few decades. Heilman and her associates (Heilman, Block & Martell, 1989) reached a similar conclusion in a study of gender bias in managerial role expectations. These authors reported surprise at this finding given recent cultural shifts in organizations and society as a whole. Rapoport and Rapoport (1976) concluded that a "psychosocial lag" existed between the changes occurring for men and women in the world of work and in the world of family. More recently, Hoschild (1989) described what she called a "stalled revolution," with both men and women following "gender strategies" that prevent progress. Duxbury and Higgins asserted that their 1990's data suggest that the idea of a psychosocial lag between work and family is as valid today as when it was first identified in 1976, and that the redistribution of roles within the family to match increased role responsibilities outside the home has not yet occurred. Studies that have examined men's participation in domestic activities typically demonstrate that men have changed at a slow but minimal rate in the past 25 years (Barnett & Baruch, 1987; Berardo, Shehan, & Leslie, 1987; Hoffman, 1989; Pleck, 1993; Volling & Belsky, 1991). For example, Shelton (1992) reported that, whereas in 1975 men did 46% as much housework as women, this number had risen to 57% in 1987. When the focus is on parenting behaviors only, one study revealed that mothers spent 19.5 hours compared to 5.5 hours for fathers in time spent alone with their children (Barnett & Baruch, 1987).

Men are slow to change, according to Daly (1996), due to three possible explanations. First, men have fundamentally different frameworks that structure their choices with respect to paid work and family work compared to women; specifically, men see commitment to work and family as independent of each other. Second, a gap

exists between what fathers think about the fatherhood role and what fathers actually do. The third explanation is that there may be negative consequences for doing more in the family. For example, there is research that suggests that increased paternal involvement may result in lower satisfaction with family life (Russell & Radin, 1983), greater marital conflict (Crouter, Perry-Jenkins, Huston, & McHale, 1987), decreased satisfaction with marriage (Crouter et al., 1987; Stanley, Hunt, & Hunt, 1986), higher stress (McBride, 1989), and moderate decreases in self-esteem (Hawkins & Belsky, 1989). Daly also proposed that part of the reason for men's slow rate of change with respect to family work can be found in women's reluctance to relinquish their power as the main parent in the household. One implication of this idea is that men are expected to be "good mothers" (e.g., Mr. Mom) instead of good fathers. In other words, they are expected to adopt the standards and expectations of female parenting or to parent according to the mother "template" (Dienhart, 1995 as cited in Daly, 1996). Wives must be willing to allow for a set of parenting standards that is rooted in male experience. For women, this change means feelings of displacement or guilt about not being the primary parent. For men, it means becoming "generative fathers" (Hawkins & Dollahite, in press as cited in Daly, 1996), rather than substitute mothers. In the same way that women entered the foreign territory of paid work with high expectations and many sobering constraints, so, too, are men moving into generative fatherhood with high hopes and the accompanying crisis of adaptation.

Prevalent Moderating Variables of Work-Family Conflict

In stress paradigm research, an array of individual and situational conditioning variables have been found to influence stress outcomes (Barnett et al., 1987). Similarly,

researchers in the work-family field have been undertaking studies to determine what the individual and situational variables are that can influence the relationship of work-family conflict to well-being. A brief discussion of some of the more prevalent moderating variables found in the literature will be reviewed.

Role Commitment, Salience, and Satisfaction

Researchers are increasingly finding that it is the quality of the experiences that persons have within role contexts, rather than occupation of the role per se, that is most important in predicting stress (Baruch & Barnett, 1986; Kandel, Davies, & Raveis, 1985). Baruch and Barnett posited that what *most* affects well-being is not the number of roles, but rather the specific roles occupied and their quality (measured by balancing the positive or rewarding experiences (rewards) against the negative and distressing experiences (concerns). The extent to which respondents are satisfied with their multiple roles could mitigate, at least partially, the stress from combining work and family roles (Berger et al., 1994). Berger et al. examined potential predictors of perceived stress and found that both role overload and satisfaction with family roles were found to be predictors of perceived stress in the work-family interface.

Studies of satisfaction with marital, parental, and homemaker roles and with one's job (Cleary & Mechanic, 1983), adjustment to family and work life (Pleck, 1985), and the balance of rewards and costs in parent, spouse, and worker roles (Baruch & Barnett, 1987) show, as might be expected, that greater satisfaction is generally predictive of greater well-being. Perhaps more important is the consistent finding that satisfaction in family roles is as consequential or more consequential for men's and women's well-being as satisfaction in their work roles (Cleary & Mechanic, 1983; Greenberger & O'Neil,

1993). Also, more favorable self-evaluations have been quite consistently associated with greater well-being. For women, evaluations of their performance in family and work roles and satisfaction with their marriage, parenthood, and work were also significantly associated with all measures of women's well-being (Greenberger & O'Neil, 1993).

Pleck (1985) implicitly suggested a moderating effects model in which the degree of personal investment in roles conditions the effects of role-related experiences. Thus, satisfaction in a role in which one is highly involved would be expected to have different consequences for well-being (i.e., greater positive impact) than satisfaction in a role of little personal meaning. Likewise, stronger commitment to a role would be expected to increase vulnerability to stressors in the area of the commitment, rendering disappointments or failures more damaging (Greenberger & O'Neil, 1993). Pleck assessed the direct (but not the moderating or conditioning) effects of level of involvement in family and work roles on adults' feelings about their lives. Controlling for time allocation to work and family activities, satisfaction in work and family roles, and several demographic variables, he found that work involvement (but not family role involvement) made a unique contribution to well-being: Employed men and women who thought work experiences were among the most important in their lives, who found the work they performed meaningful, and who put in effort at work beyond what was required rated their lives in more affectively positive terms (Greenberger & O'Neil, 1993).

Recently, stress researchers have begun to group stressors according to their relevance to personal goal, beliefs, and commitments. According to this approach, certain stressors may be psychologically more salient than others or judged as more central in a

person's life (Luchetta, 1995). Thoits (1991) logically reasoned that "identity relevant" stressors should be more threatening to one's self-concept than stressors occurring in less valued roles, and therefore, social roles with higher psychological salience attached to them are hypothesized to involve greater vulnerability to stressors. Empirical studies have yielded mixed support for this hypothesis (Greenberger & O'Neil, 1993; Thoits, 1991). O'Neil and Greenberger (1995) posited that when the work role is highly salient to one's identity, work of a kind that elicits higher esteem from others and affords more challenges may generate less stress; when the work role is less central to one's identity, however, work that is less scrutinized by others and less demanding may generate less strain.

The importance of a role for one's self-concept is often referred to in the literature as role involvement (Frone & Rice, 1997). Role involvement may increase the likelihood of interrole conflict as a result of time or psychological energy devoted to one role making it more difficult to comply with the expectations associated with a second role (Greenhaus & Beutell, 1985). In an exploratory study, Duxbury and Higgins (1991) looked at relationships between work and family involvement and work-family conflict. Work involvement was conceptualized as a person's psychological response to his or her current work role or job, the degree to which a person identifies psychologically with the job, and the importance of the job to the person's self-image and self-concept. Family involvement was conceptualized as the degree to which a person identifies psychologically with family roles, the importance of the family to the person's self-image and self-concept, and the individual's commitment to family roles (Yogev & Brett, 1985 as cited in Duxbury & Higgins, 1991). No gender differences were found in the

relationships between work involvement and work conflict and family involvement and family conflict. Higher work and family involvement were both associated with higher work-family conflict for men and women (Duxbury & Higgins, 1991).

Parent Role

The parenting role is likely to create more significant and competing demands than other social or domestic roles (Barnett & Baruch, 1985; Lewis & Cooper, 1987; Swanson, Power & Simpson, 1998). A study by Swanson and Power (1999) revealed that parents had a greater domestic workload than non-parents and worked fewer hours per week; however, no differences in job satisfaction, occupational stress, or domestic stress between parents and non-parents were found. There is substantial evidence that the presence of children, particularly those under 6 years of age, is associated with symptoms of psychological strain (Cooke & Rousseau, 1984). Participation in parental roles has been acknowledged as the primary cause for perceptions of role overload (Jackson & Sullivan, 1990 cited in Swanson,1992). Cooke and Rousseau (1984) balanced this perspective by making the point that despite the overwhelming evidence that children are likely to produce interrole conflict for people with jobs and careers, the resulting strain can be offset by the satisfaction derived from parenthood and the complimentary effects of multiple roles. For example, in a late 1970's survey, childless couples were perceived as having neither the most satisfying lives nor the most satisfying marriages (Blake, 1979).

The literature frequently addresses gender, especially in the context of role of parent. Mothers have been found to experience greater role overload and perceived stress than fathers (Duxbury & Higgins, 1994). Thus, being a parent appears to take a greater

toll on women's well-being than on men's and diminishes the otherwise positive effects of employment on women's mood (Clearly & Mechanic, 1983; Gore & Mangione, 1983; Kessler & McRae, 1982). Kandel et al. (1985) found that being employed mitigated the effects of marital stress on women's depression, whereas having responsibilities of parenthood exacerbated the effects of work stress. Evidence has accumulated to demonstrate that married women often enter and leave the labor force in response to childbirth, child-care demands, and concerns for future childbearing (Moen, 1985 as cited in Eagle et al., 1997). It has also been asserted that family roles conflicting with work demands are related to such employment variables as absenteeism and tardiness (Rodgers & Rodgers, 1989). Steers and Rhodes (1978) suggested that women are absent more often than their male coworkers because of "the traditional family responsibilities assigned to women" (p. 400).

According to Frone and Yardly (1996), two objective characteristics that are likely to increase the level of parenting demands are the number of children living in the household and the age of the youngest child. Frone & Yardley reported that numerous studies reveal that number of children is positively related, and age of youngest child is negatively related, to the amount of time devoted to child care, domestic work and errands (Brett & Yogev, 1989; Crouter, 1984; Marshall, 1992; Vandenheuvel, 1993) and occupational achievement (Glover, 1994). Karasek's (1979) job-strain model supports the contention that conflict between work and family will decrease as the age of the youngest child increases. His model predicts that stress will be highest in situations where individuals have little or no control over the stressful environment. Parents of young dependent children (especially mothers) have higher family demands than those with

older children (Hochschild, 1989; Piotrkowski et al., 1987). These higher, often unpredictable demands (e.g. arrangement of child care, daycare pick up and drop off, care of a sick child), result in lower levels of control over the work and family interface and thus higher levels of work-family conflict. As the children get older, however, the demands, especially those related to childcare, should decrease, resulting in increased levels of control and lower stress for the parents. Several studies support this view. Cooke and Rousseau (1984) reported that women with young children were more likely than others to experience incessant demands and limited freedom, as well as report loneliness, depression, and concern about having a nervous breakdown. Duxbury and Higgins (1994) found that over 60% of mothers of pre-school children experienced high levels of stress and work-family conflict. Higgins et al. (1994) found that time in childcare, not unexpectedly, was highest in the 0-to-5 years stage, next highest in the 6-12-years category, and lowest for both mothers and fathers with older children (13 to 18 years of age). Men and women with older children reported spending 23 and 27 more minutes per day, respectively, in leisure than parents with young children.

While caregiving in the work/family literature has mostly focused on childcare, it is important to recognize that caregiving is a broad construct that may also include taking care of members of one's extended family (e.g. parents and grandparents). Frone and Yardley (1996) reported a growing body of literature showing that with the increasing life expectancy in industrialized nations, employed adults need to cope with elder-care demands as well as child-care demands (Barling et al., 1994; Scharlach et al., 1991). Collins et al. (1997) also cited evidence that women bear most of the burden of care

giving for elderly relatives (Mutschler, Miller, & Levin, 1990; Barr, Johnson, & Warshaw, 1992).

Marriage and Spousal Support

Burley (1994) reported that empirical studies conducted within a diversity of populations (including dual-career and dual-earner couples, single-career husbands and their wives, and single-earner and dual-earner fathers) have provided strong support for the existence of a negative relationship between work-family conflict and marital well-being. Cooke and Rousseau (1984) identified two studies that suggested tension between family and work roles can lead to poor marital adjustment, inadequate role performance, and other negative outcomes (Jones & Butler, 1980; Staines et al., 1978). Simon (1995) suggested that men and women in marriages that combine work and parenthood are more vulnerable to marital problems because children's needs are prioritized over the marriage. Wives, then, are ultimately held responsible (by themselves and their husbands) for neglecting their marriages. Research on stress and social support suggests that family support systems can moderate the impact of work-related stressors or directly reduce the strain experienced by the individual. Cooke and Rousseau (1984) reported that social support from a spouse can potentially mitigate the effects of stress on certain health outcomes as evidenced by several studies (House & Wells, 1978; LaRocco, House, & French, 1980; Thoits, 1982). Thus, while marriage can lead to interrole conflict, this conflict and its affects can be offset by the support and other positive contributions a spouse can provide.

Several studies have identified spousal support for career as an important factor in levels of stress, overall well-being, and marital satisfaction for both men and women

(Barnett & Marshall, 1991; Greenberger & O'Neil, 1993). Men who perceived spouses as providing more support for their work and parenting activities actually reported lower role strain (O'Neil & Greenberger, 1995). This finding is consistent with an abundance of literature testifying to the salutary effects of marriage in general, and wives' support in particular, on men's well being (Cleary & Mechanic, 1983; Greenberger, Goldberg, Hamill, O'Neil, & Payne, 1989). It has also been well established that supportive relationships throughout career development are especially important for women if they are to realize their professional potential (Arnold, 1995; Ehrhart & Sandler, 1990 as cited in Phillips-Miller et al., 2000). The inequitable division of household labor reported by women in dual-career relationships can be considered a form of lack of spousal support for career and may contribute to higher levels of stress at home and at work (Phillips-Miller et al., 2000). In fact, even the perceived equity of domestic and occupational roles may be a more important factor in home/work conflict than the actual workload contribution of each partner (Lewis & Cooper, 1987). Kessler and McRae (1982) found that only those employed mothers who received help from husbands with childcare enjoyed gains in self-esteem from employment. Also, fathers with employed wives who provided more assistance with childcare tended to report greater well being. In a study of dual doctor partnerships, Swanson and Power (1999) reported that some females found their partner's lack of willingness to take responsibility for childcare demands to be problematic. They also found that some females complained that their partners expected them to prioritize home roles over work commitments.

Supervisory/Company Support

Studies of social support from the work place often, but not consistently, have revealed positive associations between supervisor and coworker support and employees' well-being. However, these associations "differ by source (of support), by the gender of the recipient, and by the type of well-being under consideration" (Greenberger et al., 1989, p. 757). Greenberger and O'Neil (1993) identified several other studies supporting this notion (House & Wells, 1981; LaRocco et al., 1980; Repetti, 1987). For example, women who perceived high levels of support within their workplace were able to fulfill and manage their multiple roles more easily and effectively (Raskin, Maranzano, Tolle, & Pannozzo, 1998).

Research investigating the relationship between immediate supervisors and work-family role strain has revealed that having a supportive supervisor is related to lower levels of stress and reduced role conflict for employed parents (Galinsky & Stein, 1990; Greenglass, Pantony & Burke, 1989 as cited in Warren & Johnson, 1995). Hughes and Galinsky (1988 as cited in Warren & Johnson, 1995) identified two dimensions of supervisor support necessary to reduce stress of the employee: (a) sensitivity to employees' family responsibilities, and (b) flexibility when family needs arise. Flexibility in work scheduling and permitting employees to come in late or leave early, to take occasional days off without pay, and to receive phone calls from family at work were the most beneficial types of supervisor support in terms of reducing work-family strain. Thomas and Ganster (1995) also found flexible scheduling and supportive supervisors positively affected employee perceptions of control over work and family. In turn, control perceptions were associated with less work-family conflict, job dissatisfaction,

and depression, fewer somatic complaints, and lower cholesterol levels. Regardless of the perceived level of supervisor awareness and understanding when work-family difficulties arise, if the supervisor is not able to provide some assistance, work-family role strain may not be reduced. Thus, supervisor practices may play a more instrumental role than supervisor attitudes in reducing work-family role strain (Warren & Johnson, 1995). Warren and Johnson's study revealed that the more supportive the organizational culture of employees with family responsibilities was perceived to be, the less the strain between work and family roles. Other studies reviewed by Warren & Johnson further supported the view that having a family-friendly atmosphere at work is an integral part of how organizations can help employees balance work and family concerns (Bowen, 1988; Galinsky & Stein, 1990, McCroskey, 1982).

Psychological and Physical Health Outcomes of Work-Family Conflict

Research examining the relation between work-family conflict and general health outcomes has increased substantially during the past decade. This work has grown out of several general models of job stress (Greenhaus & Parasuraman, 1986; Ironson, 1992). These models suggest that a lack of fit at the interface of work and family roles represents a potent stressor than can influence an employee's health and health-related behaviors (Frone, Russell et al. 1997). Frone, Russell et al. (1997) and Frone et al. (1996) provided in their literature reviews substantial evidence that work-family conflict has been linked with heightened psychological distress (Barling & MacEwen, 1992; Bromet et al., 1990; Burke, 1989; Frone et al. 1991, 1992a; Gerstel & Gallagher, 1993; Hughes & Galinsky, 1994; Klitzman et al, 1990; MacEwen & Barling, 1994; O'Driscoll et al., 1992; Parasuaman et al., 1992), lowered life satisfaction (Bedeian et al., 1988; Rice et al.,

1992), increases in physical symptomatology (Guelzow, Bird, & Koball, 1991; Klitzman et al., 1990), elevated levels of heavy alcohol use (Bromet et al., 1990; Frone et al., 1993), and poor physical health (Frone et al., 1991; Frone et al., 1996; Klitzman et al., 1990; Thomas & Ganster, 1995).

Early research simply examined the relation of work-to-family conflict (Bedeian et al., 1988; Burke, 1989) or overall work-family conflict (Bromet et al., 1990; Rice et al., 1992) to various health-related outcomes. In contrast, more recent research has begun to focus on the main-effect relations of both types of work-family conflict (work-to-family and family-to-work) to psychological health (Frone et al., 1996). Frone et al. (1992a) examined the indirect relationships of work-to-family and family-to-work conflict to depression via family- and work-related distress, respectively. They found that both types of work-family conflict were positively and indirectly related to depression. Hughes and Galinsky (1994), using a sample of 429 employees from a single company, found that both types of conflict were positively related to a global measure of psychological symptoms. MacEwen and Barling (1994) collected daily diary data from a sample of police department employees and their spouses in order to examine the relationship of both types of conflict to depression and anxiety. MacEwen and Barling's results revealed that both types of conflict were positively related to depression and anxiety. O'Driscoll et al. (1992), using a community sample of 120 adults, found that both types of conflict were positively related to a global measure of psychological distress. Klitzman et al. (1990), using a sample of 630 employees from a manufacturing plant, examined the relationship of both types of conflict to depression and physical symptoms. Their study revealed that only family-to-work conflict was positively related to depression, and

neither type of conflict was related to physical symptoms. Finally, Wiley (1987), using a sample of 191 graduate students, failed to find a unique relationship between either type of conflict and overall life satisfaction. With the exception of Klitzman et al. and Wiley, these studies provide a fairly consistent pattern of results suggesting that both types of conflict are positively related to some form of psychological distress. In contrast, Frone, Russell et al. (1997) conducted a four-year longitudinal study that supports the conclusion that only family-to-work conflict has a consistent effect on an individual's health. That is to say, that family-to-work conflict has a greater impact on an individual's physical and mental heath over time than work-to-family conflict (although the authors warrant caution in making this conclusion without further study).

Prior conceptual discussion of work-family stress processes in the literature suggest that gender represents a potentially important moderator variable when studying the relationship between work-family conflict and employee health (Eckenrode & Gore, 1990; Kline & Cowan, 1989). Although no specific hypothesis is usually provided regarding the direction of the potential moderating influence of gender, the implicit expectation is that work-family conflict might be more detrimental for employed women's health, because they have primary responsibility for family roles. Of the six studies reviewed above that examined the simultaneous relationship of work-to-family and family-to-work conflict to employee health, only two studies examined gender differences (Frone et al., 1992a; MacEwen & Barling, 1994). However, both studies were exploratory in that neither study articulated a specific hypothesis concerning gender's moderating influence. Frone et al. found that the magnitude of the indirect influence of both types of work-family conflict on depression did not differ across men

and women. In contrast, MacEwen and Barling found evidence of gender differences in the magnitude of the relationships of both types of work-family conflict to depression and anxiety. Their pattern of results revealed that work-to-family conflict was more strongly related to both depression and anxiety among women than among men, whereas family-to-work conflict was more strongly related to the two outcomes among men than among women. Further supporting this notion, a recent National Center for Health Statistics survey (1993, NCHS) reflected that working women were more than twice as likely to seek help for a personal or emotional problem in the past year than were working men (18.2% vs. 8.8%).

Frone's (2000) study was the first study to assess whether work-family conflict is related to more severe psychiatric disorders that may impair individuals' ability to function adequately at work or at home. Utilizing data from the National Comorbidity Survey (NCS; Kessler, 1994a, 1994b, 1995), Frone's study revealed that both work-to-family and family-to-work conflict were positively related to having mood, anxiety, and substance dependence disorders. Individuals who experienced work-to-family conflict often were 3.13 times more likely to have a mood disorder, 2.45 times more likely to have an anxiety disorder, and 1.99 times more likely to have a substance dependence disorder. Individuals who experienced family-to-work conflict often were 29.66 times more likely to have a mood disorder, 9.49 times more likely to have an anxiety disorder, and 11.36 times more likely to have a substance dependence disorder than were individuals with no family-to-work conflict. Frone's study also revealed that family-to-work conflict was more strongly related to the psychiatric disorders than work-to-family conflict. He suggested that this finding may be explained by differences in attributions of

responsibility for the cause of work-family conflict. Individuals may attribute responsibility for work-to-family conflict externally to the demands and problems imposed by their work organizations. In contrast, individuals may attribute responsibility internally for family-to-work conflict. Family demands that spill over into the workplace may be viewed by individuals as resulting from their own inability to effectively manage their family lives. Such differences in attributions of responsibility or blame may explain the difference in the relative strength of the association between the two types of work-family conflict and mental health.

Organizational Considerations

Rarely does a publication in the area of work-family conflict omit some reference to the impact of work-family conflict on the organization and its employees. Frone (2000) suggested that employers should not overlook work-to-family and family-to-work conflict as significant sources of stress in the lives of employed men and women. Not only is work-family conflict related to elevations in general psychological distress, as documented in past research, Frone's recent study demonstrated that work-family conflict is positively related to more severe psychiatric disorders (Frone, 2000). This can translate to significant financial drains on the organization in terms of health-care costs. Greenberger, Kessler, Nells, Finkelstein, and Berndt, (1996 as cited in Frone, 2000) cautiously estimated that aggregate workplace costs of mood disorders (major depression, bipolar disorder, and dysthymia) are approximately $33 billion per year. In addition to these health-care costs and others previously cited in the introduction, organizations are significantly impacted by work-family conflict in lost productivity (Greenhaus & Beutell, 1985; Duxbury & Higgins, 1991; Higgins et al., 1994) and in retention of employees.

Netemeyer et al. (1996) provided in their literature review evidence that both work-to-family and family-to-work conflict have been positively associated with intentions to leave an organization, lowered organizational commitment, and burnout (Bacharach, Bamberger & Conley, 1991; Burke, 1989; Greenhaus & Beutall, 1985).

Frone (2000) reviewed several studies that suggested that although a few, mostly large, progressive companies have begun to examine employee needs relative to the work-family interface (Kraut, 1990; Shellenbarger, 1993; Starrels, 1992), the vast majority of organizations continue to reward and support traditional role distributions (Duxbury & Higgins, 1991). Rosen (1991) succinctly described the current state of affairs in organizational cultures:

> Business has largely overlooked concerns among employees about family life and personal development. Many companies have stubbornly held fast to a collection of myths and outdated assumptions that have enabled them to discount the importance of people's personal lives. Until business understands the fallacies of its mythical thinking, employees will feel the uncomfortable tugs of conflicting loyalties to work and family, and companies will continue to suffer the effects (p.271)

Hall and Richter (1988) hypothesized several reasons why organizations have not responded to the call for more family-supportive programs. These include the personal threat that these issues arouse in many executives (who themselves may have suppressed their feelings about work and family), the nature of the organization's culture, the perception that work-family issues are a "woman's problem," the emphasis on short-term problems and solutions, and the inability to see the payoffs to an organization for resolving work-family dilemmas.

Work and family researchers have become, therefore, strong advocates for the development and implementation of family-supportive programs (also referred to as

"family-friendly" programs) for both men and women by work organizations (Friedman, 1990; Friedman & Galinsky, 1992; Kraut, 1990; Lewis, 1992; Thompson, Thomas & Maier, 1992). Organizations need to change the work environment to make it easier for women to pursue a productive and challenging career and for men to contribute more fully to their families' development (Duxbury & Higgins, 1991). According to Duxbury and Higgins (1991), an immediate effort to increase the amount of control employees have over work and family demands needs to be made. This is of utmost importance because of the empirically demonstrated relationship of perceived control with decreased stress levels and improved worker health (Greenglass , 1995). In concert with this thinking, Galinsky (1992) and McGovern et al. (1992 as cited in Collins et al., 1997), posited that flexibility is one of the greatest needs in juggling work and family demands. Typically, progressive companies focus on three types of coping resources: (a) family-friendly organizational culture, b) supportive supervisory practices, and (c) available family-oriented benefits (Warren & Johnson, 1995). Frone and Yardley (1996) reported that the major benefit programs discussed in the work-family literature include flextime, compressed work week, job sharing, child-care assistance, work at home, and reduced work hours (Friedman, 1990; Friedman & Galinsky, 1992; Goodstein, 1994; Lewis, 1992; Morgan & Milliken, 1992; Thompson et al., 1992). Walker and Best (1991) are proponents for additional, specifically targeted programs to help mothers of infants based on their findings that employed mothers of infants were most vulnerable to stress resulting from work-family conflict.

Despite the existence of family-supportive programs, there appears to be limited use of programs such as on-site daycare, flextime, work at home, career paths without

transfer, and paternity leave (Duxbury & Higgins, 1991). The five most frequently used benefits were found to be flextime, leave in lieu of overtime, short term leave (personal/family), sick child days, and personal days with pay according to a study by Warren and Johnson (1995). Women use family-supportive programs at a higher rate than do men (Mattis, 1990 as cited in Collins et al., 1997). Individuals may not take advantage of benefits if they are not appropriate for their particular situation or if they do not feel comfortable about using available benefits (Warren & Johnson, 1995). Management insensitivity can hinder employee use of work and family services due to fear of job loss or other discriminatory actions (e.g., being passed over for a promotion) (American Health Consultants, 1993 as cited in Collins et al., 1997; Hughes & Galinsky, 1988).

As mentioned, not all companies are convinced of the potential benefits of family-supportive programs. Unfortunately, research has stopped short of proving the effectiveness of such programs. The number of studies focused on evaluation of family-supportive programs is limited at best. Frone and Yardley (1996) reviewed studies conducted on this topic and found that studies generally failed to provide strong and consistent support for the effectiveness of such programs (Gonyea & Googins, 1992; Kingston, 1990; & Kossek & Ozeki, 1998). Frone and Yardley (1996) have suggested that prior evaluation studies have not taken into consideration the type of work-family conflict being assessed, nor have they used baseline measures of family-to-work conflict. They found in their study that the self-rated importance of family-supportive programs was positively related to family-to-work conflict, but not work-to-family conflict.

Consistent in the literature is the call for more evaluation research to help employers connect the benefits of programming to the "bottom line" (Bowen & Pittman, 1995).

Future Research

Abundant references to future research directions in the area of work-family conflict can be found throughout the literature with as broad a range of foci as topics in the field. Swanson (1995) cited two important trends in the literature that provide an overall perspective. First, more conceptual clarity seems to be emerging as evidenced by several recent theoretical models linking components of work and family (Frone et al., 1992b, Frone, Yardley et al., 1997). Secondly, there has been notable progress made in thinking about work-family conflict as concerns for both men and women. In addition to continued research in line with these two broad trends, Lambert (1990) has suggested a useful research agenda that emphasizes the need for: (a) longitudinal research and multivariate analyses; (b) specification and examination of the direct and indirect effects of work-family linkage; (c) greater diversity of outcome measures; (d) more sophisticated analyses of gender differences and similarities; and (e) more comprehensive measurements of work and family activities and their interactions.

Conclusion

In examining the work-family conflict literature, it is clear that this area of research is a relevant and popular focus given the changing demographics of today's society. Most notable has been the increasing participation of women in the work force and the resulting cultural shifts that have taken place in men's and women's roles and values. Individuals and organizations alike have a stake in better understanding and ameliorating harmful effects of work-family conflict. The work-family conflict research

field has attracted many diverse disciplines, covering a broad range of topics, and has exploded over the last 10-15 years due to its broad applicability.

The construct of work-family conflict has been slow to develop, initially rooted in traditional interrole conflict. It has been plagued by ambiguities in regard to its nature, its measurement, and its relationship to other variables (Allen et al., 2000). Recently, comprehensive and versatile bi-directional and/or multidimensional measures of work-family conflict have been developed which look promising in advancing understanding of this complex phenomenon (Carlson et al., 2000; Netemeyer et al., 1996; Stephens & Sommer, 1996). The construct of work-family conflict has been expanded to a bi-directional construct that includes work-to-family conflict and family-to-work conflict and is based on three forms of conflict: time-, strain-, and behavior-based (Greehaus & Beutall, 1985). Work-family conflict has been found to have asymmetrically permeable boundaries, with family boundaries being more permeable than work boundaries. Work-to-family conflict has been found to be more prevalent than family-to-work conflict, however, preliminary studies regarding the relationships of work-family conflict and psychological distress have indicated that family-to-work conflict may be more psychologically harmful over time. Work-family conflict has been found to influence a number of outcomes including psychological distress, job satisfaction, organizational commitment, turnover, life satisfaction, physical health, and stress, to name a few. Contemporary integrated conceptual models of the work-family interface (Frone, Russell & Cooper, 1992a; Frone, Yardley & Markel, 1997) have been developed that are beginning to fill previous gaps in the literature. These models take into consideration important antecedents and outcomes of work-family conflict. Some of these include role

commitment, role salience and satisfaction, parenting, marriage and spousal support, and supervisory and company support.

Gender differences have continued to command a significant focus in the work-family literature. Work-family conflict has been found to be more prevalent in women, however, results have been mixed in regard to the few studies that have examined gender differences in relationship to work-family conflict and psychological distress. A longstanding debate in the literature has continued over whether the "role overload/scarcity hypothesis" or the "expansion hypothesis" better accounts for work-family conflict. It appears that existing evidence slightly favors the "expansion hypothesis" notion. While the literature initially focused primarily on women, work-family conflict has come to be seen as an equally important and impacting concern for men. Three gender-based models that have received empirical support in the literature explain the work-family conflict from three different perspectives as it relates to gender: the rational view; the gender role expectations theory; and the job strain model (Karasek, 1979). Research on the impact of work-family conflict on men has significantly increased in the past decade. Debates are currently underway as to the magnitude and speed at which men's cultural values and roles are shifting. Both men and women have been found to suffer consequences of work-family conflict; caught in the paradox of paying a price both for engaging in non-traditional roles and for failing to engage in non-traditional roles.

Rising health costs and productivity concerns have led organizations to begin introducing "family friendly" policies to help ameliorate the negative individual and

organizational impacts of work-family conflict. Effectiveness of these policies, however, remains to be convincingly demonstrated.

The purpose of this literature review was to address the major issues central to understanding the current status of work-family conflict research. This review was not intended to be exhaustive, but rather to provide the reader with a good sense of the evolution of research in the work-family conflict field, along with important contemporary issues receiving attention at this time. Hopefully, this review also struck some intellectual and emotional chords of the reader, as it would be rare for any individual to not be affected somehow by the realities of "work-family conflict".

CHAPTER THREE

Method

Participants

The sample will consist of adult men and women employed at a large company in the Southwest. The division selected for the study currently employs approximately 600 people; however, only about 425 will be asked to participate in the study. The majority of these 425 people are located at the headquarter site, with a significantly smaller proportion located in field operations. (The remaining 175 are located largely overseas). At the company's request, all 425 participants will be invited to participate in the study. The demographic profile of the group is estimated to be 15% minority, with 65% male and 35% female. Approximately two-thirds of the employees are in professional or managerial positions, and approximately one-third are in technical or clerical positions. The mean age is estimated to be around 40 years old.

Instruments

Demographic Data. A personal data sheet will be utilized to collect demographic information related to personal characteristics (e.g., age, sex, ethnicity, etc.), marital and parental status, educational background, occupational status, and perceptions of familial and organizational support.

Work-Family Conflict Scale (WFCS). The WFCS (Carlson, Kacmar, & Williams, 2000) contains 18 items designed to assess work-to-family (work interference with family) and family-to-work conflict (family interference with work). Each of the two conflict scales is further divided into three subscales (yielding a total of six subscales), which assess three specific forms of work-family conflict (time-based, strain-

based, and behavior-based). Because this study will focus on work-to-family and family-to-work conflict as general constructs, only the two global scales (work-to-family conflict and family-to-work conflict) will be used in this study. This instrument was chosen because its items tap all three forms of work-family conflict and is, therefore, thought to be more theoretically and methodologically sound than other work-family conflict measures to date. Respondents rate the degree to which each statement describes their experience on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Reported coefficient alphas for the six subscales ranged from .78 to .87. Coefficient alphas of .78 and .79 for work-to-family and family-to-work scales, respectively, based upon 6 items were obtained (D. Carlson, personal communication). Although internal consistency was not examined for the 9-item scales, the author predicted that even higher alpha coefficients would be found for the longer scales.

The WFCS was constructed over a series of three studies. Ultimately, a six-factor model (with factors allowed to correlate) was determined to be the best fitting model. The authors purported that discriminant validity of the subscales has been demonstrated by low factor correlations, which ranged from .24 to .83; however, four of the correlations exceeded .50. Thus, there appears to be some overlap among the six dimensions represented in the six subscales. Invariance of the factor structure was established across samples based on a LISREL two-group measurement procedure, further confirming the structure of the six-factor model. This same procedure was used to test the six-dimensional model for invariance across gender and found to be minimally invariant. T-

tests on the level of experienced conflict across all six dimensions, revealed that females were found to experience more conflict than men in all three FIW forms of conflict, as well as strain-based WIF conflict. In addition, each of the scales differentially related to various antecedents (i.e., work-role ambiguity, work involvement, and work social support) and consequences (i.e., job satisfaction, family satisfaction, life satisfaction, and organizational commitment) of work-family conflict, further suggesting the potential predictive validity of the scales.

The Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D (Radloff, 1977) is a 20-item self-report scale designed to assess depressive symptomatology, with emphasis on the affective component, depressed mood. The CES-D is a widely-used instrument in general population surveys and is intended to be a measure of current symptoms and mood, rather than of illness or disorder. Respondents are asked to rate on a 4-point Likert-type scale, ranging from (0) to (3), how often they experienced each of the various depressive symptoms during the past week. Sixteen of the symptoms are worded negatively with the other four being worded positively to avoid the possibility of a patterned response set. A respondent's scale score is simply the sum of all items.

The CES-D has been reported to have high internal consistency with coefficient alphas ranging from .85 to .91 in patient and community samples (Radloff, 1977; Ensel, 1986). Modest test-retest reliability coefficients of .40 and above were reported, but deemed acceptable due to expected changes in mood over time and the scale's intended sensitivity to current levels of symptoms. Substantial evidence supporting the validity of the CES-D was reported. For example, scores on the CES-D were found to correlate

positively with other clinical rating scales such as the Hamilton Clinician's Rating scale, the Raskin Rating scale, and the 90-item SCL-90. The CES-D was also reported to positively relate to other self-report depression measures such as the Lubin and Bradburn Negative Affect, with correlations ranging from .50 to.70 (Radloff, 1977). Further, the CES-D effectively differentiated between psychiatric inpatient and general population samples, discriminated among the levels of severity within patient groups, and reflected improvements after psychiatric treatment. The CES-D was validated on a variety of subgroups diverse in age, gender, and socioeconomic status (Radloff, 1977; Ensel, 1986). The CES-D has continued to be widely used as a measure of depression in empirical studies, and in particular, those aimed at the general population.

State-Trait Anger Expression Inventory-2. The State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999) measures the experience, expression, and control of anger. Extensive research on the original instrument (STAXI; Spielberger, 1988) over the past 10 years has culminated in the revised 57-item STAXI-2. This revised instrument consists of six scales, five subscales, and an Anger Expression Index, which provides an overall measure of the expression and control of anger. The five subscales are associated with the State Anger and Trait Anger scales. The remaining four scales do not yield subscale scores (i.e., Anger Expression-In, Anger Expression Out, Anger Control-In, and Anger Control-Out). This study will utilize three scales of the STAXI-2, consisting of 36 items total. All three scales were retained from the original STAXI. These include Trait Anger, Anger-Expression-In, and Anger Expression-Out, and are described in the manual as follows: (a) "Trait Anger - 'how often angry feelings are experienced over time and how often they feel that they are treated unfairly by

others,' (b) Anger Expression-In - 'how often angry feelings are experienced but not expressed (suppressed),' and (c) Anger Expression-Out - 'how often angry feelings are expressed in verbally or physically aggressive behavior toward other persons or objects in the environment'" (Spielberger, 1988). Respondents are asked to rate themselves regarding either the frequency or intensity of their angry feelings on a 4-point scale.

According to the manual, the internal consistency reliabilities of the scales and subscales of the STAXI-2 were satisfactory (alpha coefficients ranged from .73 to .93) and without influence of gender or psychopathology (Spielberger, 1999). The empirical structure of the items seem to match the scale structure extremely well (Fuqua et al., 1991). Additional validity evidence can be found in positive correlations of anger scales with other measures of anger or hostility (Spielberger, 1988), the ability of anger scales to discriminate high and low anger groups (Spielberger, 1988), and the relationship of anger scores to hypertension and Type A behavior (Van der Ploeg, van Buuren, and van Brummelen, 1988 as cited in Newman et al., 1999). More recent health related research has revealed that various STAXI scales and/or subscales have positive correlations with elevated blood pressure and hypertension, cardiovascular reactivity, coronary heart disease, and posttraumatic stress disorder, thereby providing further evidence for concurrent validity (Spielberger, 1999).

Perceived Stress Scale. The Perceived Stress Scale (PSS; Cohen, Kamarck & Mermelstein, 1983) will be used in this study to measure the degree to which situations in one's life are appraised as stressful. Specifically, PSS items were designed to provide a direct measure of the degree to which respondents currently find their lives unpredictable, uncontrollable, and overloading (postulated by the authors as central components of the

experience of stress). The PSS is a 14-item measure on which subjects are asked to endorse how often they have felt or thought a certain way over the last month as measured by a 5-point Likert scale ranging from 0 (never) to 4 (very often). Items are easy to understand and the response alternatives are simple to grasp. The questions are quite general in nature and hence are relevant to a broad range of sub-groups. Participants scores on the PSS are obtained by first reversing the scores on seven designated positive items, and then summing across all 14 items, with higher scores indicative of higher levels of stress (Cohen et al., 1983).

Coefficent alphas of .84, .85, and .86 in three samples (two college student samples and one community smoking-cessation program sample) have been reported in the manual. Test-retest reliabilities of .85 for a college sample utilizing a 2-day time interval and .55 for the smoking cessation sample utilizing a 6-week time interval have been reported. As expected, the shorter retest time interval yielded a higher test-retest correlation. Also as predicted, the PSS correlated in the expected manner with a range of self-report and behavioral criteria, including life-event scores, depressive and physical symptomatology, utilization of health services, social anxiety, and smoking-reduction maintenance, providing evidence of concurrent and predictive validity. Relationships between PSS scores and validity criteria were generally found to be unaffected by sex or age.

Revised Mosher Guilt Inventory. The Revised Mosher Guilt Inventory (Mosher, 1988) is a 114 item instrument derived from the original Mosher Guilt Inventory (Mosher, 1966). It was designed to assess a cognitive predisposition to experience guilt in adults. The revised inventory consists of three scales: the Guilty Conscience (22 items);

Sex Guilt (50 items); and Hostility Guilt (42 items). The Sex Guilt and Hostility Guilt scales were purported to be potential measures of moral standards based on reference to very specific behaviors or scenarios in items on the inventory. The Guilty Conscience scale, on the other hand, was considered by Mosher to be a more general measure of the tendency for negative self-judgment and the need for punishment. Hence, the decision was made to include only the Guilty Conscience scale in this study.

Items are arranged in pairs of endings to the same sentence completion stem. Subjects respond to items by rating their response on a 7-point Likert-type scale where 0 means not at all true of (for) me, and 6 means extremely true of (for) me. The limited comparison format (two different completions to a single stem) permits subjects to compare the intensity of *trueness* for them since people generally find one alternative is more or less *true* for them. Scores are summed for each scale by reversing the nonguilty alternatives, with higher scores indicating more scripted guilt.

Reliability data were not reported by Mosher for the revised version of the inventory; however, for the earlier version of the Mosher Guilt Inventory, split-half or alpha coefficients averaged around .90. In addition, an item analysis of items on the revised inventory yielded item-whole correlations ranging from .32 to .63, with a median of .46. Discriminant validity was established between scales with 90% of the items having a correlation with their own scale that was significantly different from the correlation of the item with the other scale totals. According to Mosher (1979), the construct validity of the original inventory was strongly supported by findings of approximately 100 empirical studies. Mosher (1988) cited several additional research studies in the mid-1980s that provided further evidence for the construct validity of the

inventory as a useful measure of guilt as a personality disposition (Green & Mosher, 1985; Kelley, 1985; Mosher & Vonderheide, 1985).

The Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item scale primarily designed to measure self-approval or self-acceptance. Respondents indicate their degree of agreement with each item on a 4-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). In order to reduce the effect of respondent set, Rosenberg alternated "positive" and "negative" items on the inventory. Higher scores indicate greater self-esteem. According to Rosenberg (1965) the scale was meant to be a Guttman scale; however, after receiving strong criticism, the scale was deemed to be as valid to score as a simple additive scale.

The scale's internal consistency has been reflected in a 92% coefficient of reproducibility, and a test-retest reliability of .88 over a 2-week period has been reported for a sample of college students (Rosenberg, 1975). In a study by Napholz (1994), the alpha coefficient for a paid-worker adult sample was reported as .88. Convergent validity has been supported by scale correlations ranging from .56 to .83 with several similar measures of self-esteem, along with clinical assessment. Tippett and Silber (1965) reported evidence of the discriminant validity. Rosenberg (1965) also reported considerable data to establish construct validity of both this measure and self-esteem in general. For example, the scale correlated as expected in separate studies measuring the relationship between self-esteem and such factors as depressive affect, psychosomatic symptoms, peer-group reputation, and the ability to criticize oneself. Additional evidence supporting this instrument were provided by Rosenberg in the form of correlations of the measure with various other aspects of psychological functioning, interpersonal attitudes,

peer group participation and leadership, concern with broader social affairs, and occupational values and aspirations.

Duke-UNC Health Profile (Symptom Status Scale) (SSS). The SSS is one of four subscales included in the Duke-UNC Health Profile (DUHP), a 63-item instrument designed to measure adult health status in the primary care setting (Parkerson, Gehlbach, Wagner, James, Clapp & Muhlbater, 1981). It is suitable both for research and for day-to-day clinical assessment. The profile is intended to be used by adults, age 18 years and older. It can be self-administered by those with at least a ninth-grade education or otherwise easily interviewer-administered. The SSS will be included in the DUHP because physical symptoms are often the earliest and, sometimes, the only manifestation of altered health. They are considered to be a natural expression of dysfunction within the body and mind and complete the picture of mental health by examining the linkage of body states to psychological phenomena. The scale is comprised of 26 physical symptom items. Respondents are asked about 22 symptoms experienced during the past week, and 4 symptoms experienced during the past month. Examples of weekly symptoms include hearing, sleeping, indigestion, poor memory, breathing, etc., and monthly symptoms include undesired weight gain or loss, unusual bleeding, and sexual performance. Respondents are asked to answer, "How much trouble have you had with..." followed by a symptom with three possible severity categories from which to choose. These include: 0 (none); 1 (some); 2 (a lot). A higher score indicates a more concerning level of experienced symptoms.

Reliability and validity were examined on a group of 395 ambulatory patients in a family medicine center. According to Parkerson et al. (1981), measurement of reliability

with regard to the SSS proved difficult since high internal consistency would not be expected given the heterogeneous content of symptom status. Temporal stability of scores (test-retest) was utilized, therefore, as the assessment for reliability for the SSS. Despite problems arising because the test-retest interval of 1 to 8 weeks allowed time for symptoms to fluctuate even in respondents with stable medical conditions, overall stability for the SSS was considered acceptable as indicated by a coefficient of .68. Developers of the instrument also pointed out that since a respondent is only asked to report physical symptoms and is not asked to make an overall assessment of his/her health, the symptom status data are more reliable than a self-assessment of health would be. That is, a self-assessment of health would require a respondent to factor in his/her own concept of "health," which would likely vary greatly among respondents. Observed relationships between DUHP scores and demographic characteristics of the respondents correlated well with those predicted by the investigators (overall Spearman corrrelation = .79).

Evidence of validity of the SSS was established by comparing the symptom status scores with the other DUPH scales, as well as with other instruments. Symptom status scores highly correlated with the other three dimension scores, which included physical functioning, emotional functioning and social functioning. According to the instrument developers, "this finding fits with the recognized clinical phenomenon that symptoms such as headache or trouble with appetite and sexual performance can be associated with various combinations of physical, social or emotional problems" (p. 818). Correlations of the SSS with other instruments provided evidence of concurrent and discriminant validity. For example, the scale correlated substantially with the Sickness Impact Profile

(r = .66), which also measures physical aspects of health; and with the Zung instrument (r = .61), a measure of somatic and psychologic concomitants of depression partly reflected by patients' symptoms. In contrast, the scale correlated negligibly with the Tennessee Self-Concept Instrument (r = .22), which specifically measures the emotional dimension of health and would not, therefore, be expected to correlate highly with a physical symptom measure.

The Sex Role Egalitarianism Scale (Form BB). The Sex Role Egalitarianism Scale, Form BB (SRES-BB; King & King, 1993) is a 25-item self-report instrument designed to measure attitudes about the equality of men's and women's roles. This measure utilizes a more "contemporary translation of 'gender-role equality' to encompass the 'bi-directional' nature of the concept. True equality means the absence of evaluative judgments about men and women who choose to assume any person-role" (King & King, 1993, p. 2). Attitudes regarding marital roles, parental roles, employment roles, social-interpersonal-heterosexual roles and educational roles were all considered in the item development. A 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) is used, with higher scores indicating more egalitarian attitudes. Total scores are computed by summing across the 25 items, with possible scores ranging from 25-125.

Various estimates of reliability have been high (King & King, 1993). The coefficient alpha for Form BB was found to be .94. Test-retest stability estimates of .88 have been reported. The correlation of form BB with the full form B was found to be .95. Analyses of factorial validity have yielded evidence that the egalitarianism construct is unidimensional for samples of males and females examined separately and combined.

Convergent and discriminant evidence has been established as several studies have confirmed expected relationships with measures of similar and dissimilar constructs (King & King, 1986; King & King, 1993). The authors also reported nomological evidence by referring to a study by Beere et al. (1984 cited in King & King, 1993). In this study, significantly higher means were reported for women than men due to the notion that women purportedly have more to gain by shifts away from traditional sex-role expectations and behaviors.

Social Desirability Scale (SDS). The SDS will be utilized in this study to address concerns that participants' responses to the Sex Role Egalitarian Scale might be influenced by a desire to appear socially desirable. Social desirability is measured by a 25-item scale in a true/false format, derived from the Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1964). The M-C SDS has a test-retest correlation of .89 and an internal consistency coefficient of .88 (Crowne & Marlowe, 1960).

Procedures

All 425 division employees, will be invited to participate in the study on a voluntary basis. The employees will attend a meeting either on a face-to-face basis or by video replay to hear the researcher explain the purpose and relevance of the study. Participants will be informed of the benefits and risks associated with participating. Participants will then be then mailed research packets, with instruments in random order, along with an informed consent letter that will reiterate in writing what they were told in the meetings. Participants' returned research response packets will imply their consent to participate in the study. Participants will be strictly advised not to put their name or any

identifying information on the research instruments. Participants will be advised that group data will be shared with all employees in approximately six months time via company communication, but that absolutely no individual data will be made available. A separate postcard, addressed to the researcher, will be provided in the research packet. Participants can choose to return the postcard or email the researcher to have their names entered into a drawing for a chance to win a reward. This will be on an "honor basis" since, by design, there will be no way to associate returned packets with names submitted. In this way, confidentiality and anonymity of individual responses within the company will be assured. The reward will be provided directly from the researcher to the winner so that no one within in the company will know who participated unless that individual wishes to disclose information that he/she participated. Research forms will consist of a brief demographic questionnaire, and the 8-instrument battery, and will take approximately 20-30 minutes to complete. All research materials will remain in the researcher's possession. All participants will be treated in accordance with the ethical standards of the American Psychological Association (American Psychological Association, 1992).

Research Questions/Data Analytic Strategy

Due to the multivariate nature of the data, canonical correlation analyses (which allows for the relationship between two sets of variables to be analyzed) will be utilized, along with a series of multiple regression follow-up analyses. The specific research questions to be addressed in this study are as follows:

(1) What is the relationship between work-to-family conflict and psychological distress?

(2) What is the relationship between family-to-work conflict and psychological distress?

(3) Is work-to-family conflict a mediator between sex role egalitarian attitude and/or gender with psychological distress?

(4) Is family-to-work conflict a mediator between sex role egalitarian attitude and/or gender with psychological distress?

(5) Does gender and/or sex role egalitarian attitude potentially moderate the relationship between work-to-family conflict and psychological distress?

(6) Does gender and/or sex role egalitarian attitude potentially moderate the relationship between family-to-work conflict and psychological distress?

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APPENDIX B

Management Email Inviting

Employee Participation

From: Division Manager
Sent by: Mail Transfer Agent

08/31/2001 10:36 AM
No reply to this message is necessary.

This message is being sent to: **All Employees**

Kathy Laster, a University of Oklahoma doctoral candidate, has asked our organization to participate in a research study as a part of her dissertation project. Her study is looking into the conflicts we all have in trying to balance our work and family priorities and will try to evaluate the impact this conflict can have on our individual job performance and personal well being.

I have agreed to allow her to utilize our organization as a sample population for her research study. While your individual participation is totally voluntary, I want to encourage you each to participate. All information you provide will be done completely anonymously, but when consolidated should provide Kathy with good data for her analysis and will, hopefully, provide us some insight in what we can do as an organization to improve both our work and family lives.

Please click on the following link to view a 3-minute video presentation where Kathy will give you additional information about the study, how to participate, response deadlines, and the opportunity to win some free travel!!
Select the appropriate link for your location because some of the servers only allow access to employees at that location.

Then, if you wish to participate, click onto the informed consent attachment to get detailed information about her survey and the drawing.

Please feel free to contact Kathy directly at klaster@ou.edu or 405-273-3010 if you have any questions or concerns.

Thanks in advance for choosing to participate.

APPENDIX C

Video Script and Informed Consent Letter

From Investigator

Video Tape Script- Work/Family Role Conflict Study Intro.

Hi! I'm Kathy Laster, a doctoral candidate at the University of Oklahoma. Your division's management team has agreed for me to invite you to participate in my dissertation research study. It's a study about the struggles we sometimes experience as we try to balance our work life and our home life. When fulfilling responsibilities at work makes it more difficult to fulfill our responsibilities at home, and vice versus, we call this work-family role conflict. The purpose of this study is to determine what impact, if any, this type role conflict has on a person's psychological well-being. We are also interested in learning if there is a difference in the impact of work-family role conflict on men as compared to women.

There is a lot of research going on today in this area. More and more companies are interested in ways to help their employees feel less stress. One of the benefits to you in participating in this study is that you will help provide information to your company, as well as researchers in this field, on how to address these type concerns in the workplace. Also, because we're asking you to invest some of your time, we are offering to those who participate a chance in a drawing for a $250 airline gift certificate. Four winners will be selected.

Here's what would be involved. It would take about 30 minutes of your time. You'd simply provide some very general demographic type information and complete a battery of short psychological surveys. It's very important that you answer all the questions and that you answer them honestly. We know that to do this, you will want to feel comfortable that your answers are treated **anonymously**. Therefore, we have gone to great lengths to design this study in such a way that your personal identity cannot be known. You will not be asked to provide any identifying information on the survey forms. Results of the study will be given on a group basis only. This means I'll only report trends or patterns found in the group, and will **NOT** report any individual employee data.

There are two ways you can participate. 1) You can take the survey electronically. Or 2) you can pick up a research

packet at your work location and send it back to me by mail. Either way, you will need to click on the informed consent attachment in your division manager's email that will explain how to link on to the survey and where to get the packets. It will also explain all the safeguards we've put in place to protect the anonymity of your responses. Be sure to read it as it has other important information you'll want to know.

Now this next part is very important. You'd have to submit your survey responses no later than Friday, September 14th. And if you want to enter the drawing, send me a separate email with your name. This is because I won't know who actually submitted surveys since they're anonymous. Your entries will be treated **confidentially**. I will personally hold the drawing on October 1st and notify the 4 winners by email. You'll find my email address and phone number in the informed consent attachment, along with other important contact information.

This study was approved by the University of Oklahoma's Institutional Review Board and meets all research ethical standards. Your participation in the study is **strictly voluntary** and there is no penalty for not participating. If you have <u>any</u> questions or concerns, feel free to call or email me.

THANKS so much for taking important time out of your day to hear about this study. I do hope you choose to participate. The more responses, the better the data. The time you invest will make an important contribution to this research field and to your company. Thanks again and have a great day!

Date: August 30, 2001

To: Division Employees

From: Kathy Laster, M.S., L.P.C., University of Oklahoma

Re: Informed Consent - Work-Family Role Conflict Study

Thank you for your interest in learning more about the Work-Family Role conflict research study as promised in the video, here is additional specific information you will need to know.

To participate, you will simply fill out a battery of short surveys (including a short demographic questionnaire, and brief self-report psychological surveys measuring work-family conflict, anger, depression, guilt, perceived stress, health symptoms, self-esteem, sex-role egalitarian attitudes, and social desirability). It will take you approximately 30 minutes to complete these surveys. It is very important that you answer questions **honestly** and that you **do not omit** answering any items. Therefore, you will **NOT** be asked to provide any identifying information on the surveys. All precautions have been taken to protect the anonymity of your responses. Results of the study will be reported as group data only and no individual survey results will be accessible. You have the option of completing and submitting your survey responses electronically or through the mail as follows:

1. To submit responses electronically, you simply click on this website link provided at the end of this email. You will be connected to a secure, password protected website with firewall protection through the University of Oklahoma. You will be guided through the survey response and submittal process. If, at any point during the survey you wish to log off and return later, you may do so. When you link back up to the website, you will be returned to where you left off. Therefore, only one survey can be submitted from each terminal without resetting the cookie. If you need instructions on how to do this, please email me. The website administrator will strip all email addresses prior to sending survey data to me to assure the anonymity of your individual responses.

2. If you prefer to respond through the mail, you may pick up a research packet at a designated location in your building (listed at the end of this email). If no packets are available, you can contact me at klaster@ou.edu or 405-273-3010 to get a packet. Simply fill out the survey questionnaires and return them by mail directly to me in the return (postage paid) envelope provided in your packet. Do **NOT** provide any identifying information on the envelope. If, at any point during the survey you wish not to continue, please shred your survey forms.

This study was approved by the University of Oklahoma's Institutional Review Board and meets all research ethical standards. Your participation in the study is **strictly voluntary**. You do not have to participate and you may quit at any time without penalty. Participating involves some minimal risks. These include: 1) the inconvenience of devoting some time out of your busy schedule to respond to the survey, and; 2) the possibility that responding to the surveys could heighten your awareness about issues that may produce some psychological discomfort. Should these feelings persist, you

may contact your EAP counselor. You may also call the American Psychological Association's toll-free help center to find an appropriate referral for counseling (1-800-964-2000) in your area. On the positive side, participating in the study may have a validating effect on your experiences and feelings.

Survey responses need to be mailed or electronically submitted no later than Friday, September 14th. Submitting your electronic responses or returned packet will imply your consent.

To enter the drawing, you would need to send me a separate email at klaster@ou.edu with your name. This is because I will not know whom actually submitted surveys since, by design, they are anonymous. Your entries will be treated **confidentially.** Send your entries by September 30th. I will personally hold the drawing on October 1st and will notify the 4 winners by email to make arrangement to receive the gift certificate.

If you have any questions about this study or the drawing, please feel free to contact me or Barbara Bottoms (see contact information above). You may also contact my faculty sponsor, Dr. Jody Newman at 405-325-5974 or jlnewman@ou.edu. Any questions about your rights as a research participant may also be directed to the Office of Research Administration at 405-325-4757 or email: irb@ou.edu.

Click here to access survey **electronically**:
http://nemesis.ou.edu/wfrc/start.cfm

Enter this username: wfrc and password: suRv3y.
The password is case sensitive.

Or: Pick up a **paper research packet** at one of the following locations:

APPENDIX D

General Demographic Questionnaire

General Demographic Information

Sex:	Age:	Ethnic Origin:	Marital Status:
F _____	20-29_____	Non-minority _____	Single _____
M _____	30-39_____	Minority _____	Married _____
	40-49_____		Divorced _____
	50-59_____		Living w/
	60-69_____		partner _____
	70 + _____		Other _____

Number of children:	Ages of Children:
0 _____	0-1 yr/old _____
1 _____	2-4 yr/old _____
2 _____	5-12 yr/old _____
3 _____	13-17 yr/old _____
4+ _____	18 or older _____

Highest educational degree:	Employment status:
High School _____	Supervisor/Manager _____
Bachelor _____	Professional (Non-Exempt) _____
Graduate _____	Administrative _____
Other _____	Technician/Operator (Non-Exempt) _____

Place an (X) to indicate degree of satisfaction of support received in balancing work and family roles from:	Very Satisfied	Satisfied	Somewhat Dissatisfied	Very Dissatisfied	N/A
Spouse/Significant Other:	_____	_____	_____	_____	_____
Immediate Supervisor:	_____	_____	_____	_____	_____
Organization:	_____	_____	_____	_____	_____

Place an (X) to indicate the degree of flexibility and control you feel you have in your work environment to balance work and family responsibilities:	None	Low	Average	High	Very High
Flexibility:	_____	_____	_____	_____	_____
Control:	_____	_____	_____	_____	_____

APPENDIX E

Duke-UNC Health Profile

Health Profile

Instructions:

Here are a number of questions about your health. Please read each question carefully and check (✓) your best answer. There are no right or wrong answers.

DURING THE PAST WEEK: How much trouble have you had with:

	None	Some	A Lot
1) Eyesight			
2) Hearing			
3) Talking			
4) Tasting food			
5) Appetite			
6) Chewing food			
7) Swallowing			
8) Breathing			
9) Sleeping			
10) Moving your bowels			
11) Passing water/ urinating			
12) Headache			
13) Hurting or aching in a part of your body			
14) Itching in any part of your body			
15) Indigestion			
16) Fever			
17) Getting tired easily			
18) Fainting			
19) Poor memory			
20) Weakness in any part of your body			
21) Feeling depressed or sad			
22) Nervousness			

DURING THE PAST MONTH how much trouble have you had with:

	None	Some	A Lot
23) Undesired weight loss			
24) Undesired weight gain			
25) Unusual bleeding			
26) Sexual performance (Having sex)			

APPENDIX F

Work-Family Conflict Scale

WFCS

Circle: 1 for *Strongly Agree* 2 for Agree 3 for *Neutral* 4 for Disagree 5 for *Strongly Disagree*

1. My work keeps me from my family activities more than I would like	1	2	3	4	5
2. The time I must devote to my job keeps me from participating equally in household responsibilities and activities	1	2	3	4	5
3. I have to miss family activities due to the amount of time I must spend on work responsibilities	1	2	3	4	5
4. The time I spend on family responsibilities often interferes with my work responsibilities	1	2	3	4	5
5. The time I spend with my family often causes me not to spend time in activities at work that could be helpful to my career	1	2	3	4	5
6. I have to miss work activities due to the amount of time I must spend on family responsibilities	1	2	3	4	5
7. When I get home from work I am often too frazzled to participate in family activities/responsibilities	1	2	3	4	5
8. I am often so emotionally drained when I get home from work that it prevents me from contributing to my family	1	2	3	4	5
9. Due to all the pressures at work, sometimes when I come home I am too stressed to do the things I enjoy	1	2	3	4	5
10. Due to stress at home, I am often preoccupied with family matters at work	1	2	3	4	5
11. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work	1	2	3	4	5
12 Tension and anxiety from my family life often weakens my ability to do my job	1	2	3	4	5
13 The problem-solving behaviors I use in my job are not effective in resolving problems at home	1	2	3	4	5
14. Behavior that is effective and necessary for me at work would be counter-productive at home	1	2	3	4	5
15. The behaviors I perform that make me effective at work do not help me to be a better parent and spouse	1	2	3	4	5
16 The behaviors that work for me at home do not seem to be effective at work	1	2	3	4	5
17. Behavior that is effective and necessary for me at home would be counter-productive at work	1	2	3	4	5
18. The problem-solving behavior that works for me at home does not seem to be as useful at work	1	2	3	4	5

APPENDIX G

Rosenberg's Self Esteem Scale

SES

Circle:	1 for *Strongly Agree*	2 for *Agree*	3 for *Disagree*	4 for *Strongly Disagree*

1. I feel that I'm a person of worth, at least on an equal basis with others.....	1	2	3	4
2. I feel that I have a number of good qualities.....	1	2	3	4
3. All in all, I am inclined to feel that I am a failure.....	1	2	3	4
4. I am able to do things as well as most other people.....	1	2	3	4
5. I feel I do not have much to be proud of.....	1	2	3	4
6. I take a positive attitude toward myself.....	1	2	3	4
7. On the whole, I am satisfied with myself.....	1	2	3	4
8. I wish I could have more respect for myself.....	1	2	3	4
9. I certainly feel useless at times.....	1	2	3	4
10. At times I think I am no good at all.....	1	2	3	4

APPENDIX H

Social Desirability Scale

SDS

Instructions:

Below are a number of statements concerning personal attributes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally. Circle your answer.

T F 1. I never hesitate to go out of my way to help someone in trouble.

T F 2. It is sometimes hard for me to go on with my work if I am not encouraged.

T F 3. I have never intensely dislike anyone.

T F 4. On occasion I have had my doubts about my ability to succeed in life.

T F 5. I sometimes feel resentful when I don't get my way.

T F 6. I like to gossip at times.

T F 7. There have been times when I felt like rebelling against people in authority even though I knew they were right.

T F 8. No matter who I'm talking to, I'm always a good listener.

T F 9. I can remember "playing sick" to get out of something.

T F 10. There have been occasions when I took advantage of someone.

T F 11. I'm always willing to admit it when I make a mistake.

T F 12. I always try to practice what I preach.

T F 13. I sometimes try to get even, rather than forgive and forget.

T F 14. When I don't know something I don't at all mind admitting it.

T F 15. I am always courteous, even to people who are disagreeable

T F 16. At times, I have really insisted on having things my own way.

T F 17. There have been occasions when I felt like smashing things

T F 18. I would never think of letting someone else be punished for my wrongdoings

T F 19. I never resent being asked to return a favor.

T F 20. I have never been bothered when people expressed ideas very different from my own.

T F 21. There have been times when I was quite jealous of the good fortune of others

T F 22. I have almost never felt the urge to tell someone off.

T F 23. I am sometimes irritated by people who ask favors of me.

T F 24. I sometimes think when people have a misfortune they only got what they deserved

T F 25. I have never deliberately said something that hurt someone's feelings.

APPENDIX I

Perceived Stress Scale

PSS

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate. For each question, choose from the following alternatives:

Circle:	0 for *Very Often*	1 for *Fairly Often 0*	2 for *Sometimes*	3 for *Almost Never*	4 for Never

1.	In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2.	In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3.	In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4.	In the last month, how often have you dealt successfully with irritating life hassles?	0	1	2	3	4
5.	In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?	0	1	2	3	4
6.	In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
7.	In the last month, how often have you felt that things were going your way?	0	1	2	3	4
8.	In the last month, how often have you found that you could not cope with all the things you had to do?	0	1	2	3	4
9.	In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
10.	In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
11.	In the last month, how often have you been angered because of things that happened outside your control?	0	1	2	3	4
12.	In the last month, how often have you found yourself thinking about things that you have to accomplish?	0	1	2	3	4
13.	In the last month, how often have you been able to control the way you spend your time?	0	1	2	3	4
14.	In the last month, how often have you felt difficulties were piling up so high you could not overcome them?	0	1	2	3	4

APPENDIX J

Revised Mosher Guilt Inventory

RMGI

Instructions: This inventory consists of pairs of responses to sentence completion stems. You are to respond to each item as honestly as you can by rating your response on a 7-point scale from 1, which means *NOT AT ALL TRUE (FOR) ME* to 6, which means *EXTREMELY TRUE OF (FOR) ME*. The items are arranged in pairs of two to permit you to compare the intensity of *TRUENESS* for you. This limited comparison is often useful since people frequently agree with only one item in a pair. In some instances, it may be the case that both items or neither items are true for you, but you will usually be able to distinguish between items in a pair by using different ratings from the 7-point range for each item.

Rate each of the 22 items from 0 to 6 as you keep in mind the value of comparing items within pairs. Record your answer by circling the rating number. Please do not omit any items.

	Not at all true of (for) me						Extremely true of (for) me
I punish myself...							
1. very infrequently.	0	1	2	3	4	5	6
2. when I do wrong and don't get caught.	0	1	2	3	4	5	6
I detest myself for...							
3. nothing, I love life.	0	1	2	3	4	5	6
4. my sins and failures.	0	1	2	3	4	5	6
I detest myself for...							
5. nothing at present.	0	1	2	3	4	5	6
6. being so self-centered.	0	1	2	3	4	5	6
I detest myself for...							
7. nothing, I love life.	0	1	2	3	4	5	6
8. not being more nearly perfect.	0	1	2	3	4	5	6
A guilty conscience...							
9. is worse than a sickness to me	0	1	2	3	4	5	6
10. does not bother me too much.	0	1	2	3	4	5	6
Obscene literature...							
11. helps people become sexual partners	0	1	2	3	4	5	6
12. Should be freely published.	0	1	2	3	4	5	6
One should not ..							
13. lose his temper.	0	1	2	3	4	5	6
14. say "one should not."	0	1	2	3	4	5	6

(Continued on next page)

RMGI
(Continued)

	Not at all true of (for) me						Extremely true of (for) me
I regret...							
15. all of my sins.	0	1	2	3	4	5	6
16. getting caught, but nothing else.	0	1	2	3	4	5	6
I punish myself...							
17. by denying myself a privilege.	0	1	2	3	4	5	6
18. for very few things.	0	1	2	3	4	5	6
If I robbed a bank...							
19. I should get caught.	0	1	2	3	4	5	6
20. I would live like a king.	0	1	2	3	4	5	6
I detest myself for...							
21. thoughts I sometimes have.	0	1	2	3	4	5	6
22. nothing, and only rarely dislike myself.	0	1	2	3	4	5	6

APPENDIX K

State-Trait Anger Expression Inventory – Second Edition: Trait Anger, Anger Expression-In, and Anger Expression-Out Subscales

STAXI-2 Instructions*

This instrument is divided into two Parts. Each Part contains a number of statements that people use to describe their feelings and behavior. Please note that each Part has *different* directions. Carefully read the directions for each Part before recording your responses on the Rating Sheet. There are no right or wrong answers. In responding to each statement, give the answer that describes you best.

Part 1 Directions

Read each of the following statements that people have used to describe themselves, and then circle the appropriate rating number to indicate how you *generally* feel or react. There are no right or wrong answers. Do not spend too much time on any one statement. Mark the answer that *best* describes how you *generally* feel or react.

Circle 1 for *Always*	Circle 2 for *Often*	Circle 3 for *Sometimes*	Circle 4 for *Almost Never*

1.	I am quick tempered	1	2	3	4
2.	I have a fiery temper	1	2	3	4
3.	I am a hotheaded person	1	2	3	4
4.	I get angry when I'm slowed down by others' mistakes	1	2	3	4
5.	I feel annoyed when I am not given recognition for doing good work	1	2	3	4
6.	I fly off the handle	1	2	3	4
7.	When I get mad, I say nasty things	1	2	3	4
8.	It makes me furious when I am criticized in front of others	1	2	3	4
9.	When I get frustrated, I feel like hitting someone	1	2	3	4
10.	I feel infuriated when I do a good job and get a poor evaluation	1	2	3	4

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STAXI-2 (Cont'd.)*
Part 2 Directions

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel *angry* or *furious*. Read each statement and then circle the appropriate number to indicate how *often* you *generally* react or behave in the manner described when you are feeling angry or furious. There are no right or wrong answers. Do not spend too much time on any one statement.

Circle 1 for *Almost Always*	Circle 2 for *Often*	Circle 3 for *Sometimes*	Circle 4 for *Almost Never*

How I Generally React or Behave When Angry or Furious...

13.	If someone annoys me, I'm apt to tell him or her how I feel	1	2	3	4
14.	I pout or sulk	1	2	3	4
11.	I express my anger	1	2	3	4
12.	I keep things in	1	2	3	4
15.	I lose my temper	1	2	3	4
16.	I withdraw from people	1	2	3	4
17.	I make sarcastic remarks to others	1	2	3	4
18.	I boil inside, but I don't show it	1	2	3	4
19.	I do things like slam doors	1	2	3	4
20.	I tend to harbor grudges that I don't tell anyone about	1	2	3	4
21.	I argue with others	1	2	3	4
22.	I am secretly quite critical of others	1	2	3	4
23.	I strike out at whatever infuriates me	1	2	3	4
24.	I am angrier than I am willing to admit	1	2	3	4
25.	I say nasty things	1	2	3	4
26.	I'm irritated a great deal more than people are aware of	1	2	3	4

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APPENDIX L

Center for Epidemiologic Studies Depression Scale

CES-D SCALE

Instructions:

Please indicate how often you have felt this way during the last week.

0 = Most or all of the time (5-7 days a week)

1 = Occasionally or a moderate amount of time (3-4 days a week)

2 = Some or a little of the time (1-2 days a week)

3 = Rarely or non of the time (less than once a week)

1. I was bothered by things that usually don't bother me	0	1	2	3
2. I felt that everything I did was an effort	0	1	2	3
3. I felt I was just as good as other people	0	1	2	3
4. I had trouble keeping my mind on what I was doing	0	1	2	3
5. I felt sad	0	1	2	3
6. I felt fearful	0	1	2	3
7. I felt lonely	0	1	2	3
8. I had crying spells	0	1	2	3
9. I talked less than usual	0	1	2	3
10. My sleep was restless	0	1	2	3
11. I enjoyed life	0	1	2	3
12. I felt that I could not shake off the blues even with the help of my family/friends	0	1	2	3
13 I thought my life had been a failure	0	1	2	3
14 I was happy	0	1	2	3
15. I could not get "going"	0	1	2	3
16. I felt hopeful about the future	0	1	2	3
17. People were unfriendly	0	1	2	3
18. I did not feel like eating; my appetite was poor	0	1	2	3
19. I felt depressed	0	1	2	3
20. I felt that people disliked me	0	1	2	3

APPENDIX M

Sex Role Egalitarianism Scale-Form BB

SRES Form BB

Below are statements about men and women. Read each statement and decide how much you agree or disagree. We are not interested in what society says. We are interested in ***your personal opinions***. For each statement, circle the letter(s) that describe(s) your opinion. Please ***do not omit*** any statements. Remember to circle ***only one*** of the five choices for each statement:

SA = Strongly agree A = Agree N = Neutral or undecided or no opinion D = Disagree SD = Strongly disagree

1.	Home economics courses should be as acceptable for male students as for female students.	SA	A	N	D	SD
2.	Women have as much ability as men to make major business decisions.	SA	A	N	D	SD
3.	High school counselors should encourage qualified women to enter technical fields like engineering.	SA	A	N	D	SD
4.	Cleaning up the dishes should be the shared responsibility of husbands and wives.	SA	A	N	D	SD
5.	A husband should leave the care of young babies to his wife.	SA	A	N	D	SD
6.	The family home will run better if the father, rather than the mother, sets the rules for the children.	SA	A	N	D	SD
7.	It should be the mother's responsibility, not the father's, to plan the young child's birthday party.	SA	A	N	D	SD
8.	When a child awakens at night, the mother should take care of the child's needs.	SA	A	N	D	SD
9.	Men and women should be given an equal chance for professional training.	SA	A	N	D	SD
10.	It is worse for a woman to get drunk than for a man.	SA	A	N	D	SD
11.	When it comes to planning a party, women are better judges of which people to invite.	SA	A	N	D	SD
12.	The entry of women into traditionally male jobs should be discouraged.	SA	A	N	D	SD
13.	Expensive job training should be given mostly to men.	SA	A	N	D	SD
14.	The husband should be the head of the family.	SA	A	N	D	SD
15.	It is wrong for a man to enter a traditionally female career.	SA	A	N	D	SD
16.	Important career-related decisions should be left to the husband.	SA	A	N	D	SD
17.	A woman should be careful not to appear smarter than the man she is dating.	SA	A	N	D	SD
18.	Women are more likely than men to gossip about people they know.	SA	A	N	D	SD
19.	A husband should not meddle with the domestic affairs of the household.	SA	A	N	D	SD
20.	It is more appropriate for a mother, rather than a father, to change their baby's diapers.	SA	A	N	D	SD
21.	When two people are dating, it is best if they base their social life around the man's friends.	SA	A	N	D	SD
22.	Women are just as capable as men to run a business.	SA	A	N	D	SD
23.	When a couple is invited to a party, the wife, not the husband, should accept or decline the invitation.	SA	A	N	D	SD
24.	Men and women should be treated the same when applying for student loans.	SA	A	N	D	SD
25.	Equal opportunity for all jobs regardless of sex is an ideal we should all support.	SA	A	N	D	SD

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APPENDIX N

Institutional Review Board Approval

The University of Oklahoma

OFFICE OF RESEARCH ADMINISTRATION

August 28, 2001

Ms. Kathy Laster
2407 Robinwood Place
Shawnee OK 74801

Dear Ms. Laster:

The Institutional Review Board-Norman Campus, has reviewed your proposal, "An Examination of the Relationship Between Select Psychological Dimensions and Work-to-Family and Family-to-Work Role Conflict in Men and Women." The Board found that this research would not constitute a risk to participants beyond those of normal, everyday life except in the area of privacy which is adequately protected by the confidentiality procedures. Therefore, the Board has approved the use of human subjects in this research.

This approval is for a period of 12 months from this date, provided that the research procedures are not changed significantly from those described in your "Summary of Research Involving Human Subjects" and attachments. Should you wish to deviate significantly from the described subject procedures, you must notify me and obtain prior approval from the Board for the changes.

At the end of the research, you must submit a short report describing your use of human subjects in the research and the results obtained. Should the research extend beyond 12 months, a progress report must be submitted with the request for re-approval, and a final report must be submitted at the end of the research.

If you have any questions, please contact me.

Sincerely yours,

Susan Wyatt Sedwick

Susan Wyatt Sedwick, Ph.D.
Administrative Officer
Institutional Review Board

SWS/pw
FY02-14

cc: Dr. E. Laurette Taylor, Chair, Institutional Review Board
Dr. Jody L. Newman, Educational Psychology

1000 Asp Avenue, Suite 314, Norman, Oklahoma 73019-0430 PHONE: (405) 325-4757 FAX: (405) 325-6029