

ABSTRACT

Title of Dissertation: WORK-FAMILY CONFLICT AND LIFE SATISFACTION
 IN FEMALE GRADUATE STUDENTS: TESTING
 MEDIATING AND MODERATING HYPOTHESES

Dana Lynn Treistman, Doctor of Philosophy, 2004

Dissertation Directed by: Professor Robert W. Lent
 Department of Counseling and Personnel Services

Most of the research on work-family conflict has examined people working in the paid labor force while simultaneously juggling the roles of paid worker, partner, parent, and homemaker. There is limited research on female graduate students and their experiences of work-family conflict. The goals of the present study were to examine the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and global life satisfaction, the relationship between work-family conflict and domain-specific satisfactions (family satisfaction and work satisfaction), and the mediators and moderators of these relationships among a sample of female graduate students. Participants included 187 female graduate students. Both work-to-family conflict and family-to-work conflict were hypothesized to be negatively related to domain-specific and global life satisfactions. Work/family conflict self-efficacy and perceived social support were hypothesized to be positively related to domain-specific

and global life satisfactions. Neuroticism was hypothesized to be negatively related to domain-specific and global life satisfactions, whereas extraversion was hypothesized to be positively related to domain-specific and global satisfactions. These hypothesized relationships were significant except the positive relationships of extraversion to family, work, and global life satisfactions. It was also predicted that domain-specific satisfactions would mediate the relationships between work-to-family conflict and global life satisfaction, and between family-to-work conflict and global life satisfaction. Work/family conflict self-efficacy and perceived social support were hypothesized to moderate the relationships between work-to-family conflict and domain specific satisfactions, and between family-to-work conflict and domain-specific satisfactions. Results suggested family satisfaction and work satisfaction partially mediated the relationships between work-to-family conflict and global life satisfaction, and between family-to-work conflict and global life satisfaction. Work/family conflict self-efficacy moderated both the relationship between work-to-family conflict and work satisfaction, and between family-to-work conflict and work satisfaction. No other significant moderators were found. Implications for research and practice, and limitations of the present study are discussed.

WORK-FAMILY CONFLICT AND LIFE SATISFACTION IN FEMALE
GRADUATE STUDENTS: TESTING MEDIATING AND
MODERATING HYPOTHESES

by

Dana Lynn Treistman

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland at College Park in partial fulfillment
of the requirements for the degree of
Ph.D.
2004

Advisory Committee:

Robert W. Lent, Ph.D., Chair/Advisor
Norman Epstein, Ph.D.
Mary Ann Hoffman, Ph.D.
Margaretha Lucas, Ph.D.
Linda Tipton, Ph.D.

©Copyright by
Dana Lynn Treistman
2004

TABLE OF CONTENTS

LIST OF TABLES.....	iv
LIST OF FIGURES.....	vi
Chapter I: Introduction.....	1
Chapter II: Review of the Literature.....	9
Overview.....	9
Subjective Well-Being.....	9
Diener’s Conceptualization of Subjective Well-Being.....	9
Global Life Satisfaction.....	11
Domain-Specific Satisfaction.....	12
Work-Family Conflict.....	13
Measurement of Work-Family Conflict.....	13
Work-Family Conflict and Life Satisfaction.....	15
Work-Family Conflict and Domain-Specific Satisfaction.....	26
Personality and Subjective Well-Being.....	31
Self-Efficacy and Subjective Well-Being.....	33
Social Support and Subjective Well-Being.....	38
Social Support and Multiple Roles.....	40
The Experiences of Female Graduate Students.....	42
Statement of the Problem.....	46
Hypotheses and Exploratory Research Questions.....	47
Chapter III: Method.....	65
Participants.....	65
Measures.....	66
Procedure.....	76
Chapter IV: Results.....	79
Chapter V: Discussion.....	105
Summary.....	105
Limitations.....	110
Future Research.....	112
Implications for Practice.....	117
Appendix A: Demographic Form.....	122
Appendix B: Work-to-Family Conflict Scale.....	124
Appendix C: Family-to-Work Conflict Scale.....	125
Appendix D: Work-Family Conflict Self-Efficacy Scale.....	126

Appendix E: Social Provisions Scale.....	128
Appendix F: Extraversion Scale of Eysenck Personality Questionnaire–Revised....	130
Appendix G: Neuroticism Scale of Eysenck Personality Questionnaire–Revised....	131
Appendix H: Work Satisfaction Measure.....	132
Appendix I: Family Satisfaction Measure.....	133
Appendix J: The Satisfaction with Life Scale.....	134
Appendix K: Introductory Email Regarding Inclusion Criteria.....	135
Appendix L: Advance-Notice Email.....	136
Appendix M: Cover Letter.....	137
Appendix N: Follow-up Email.....	138
Appendix O: Second Cover Letter.....	139
Appendix P: Form for Lottery Drawing and Notification of Results.....	140
References.....	141

LIST OF TABLES

Table 1: Work/Family Conflict Self-Efficacy Items and Factor Loadings.....	81
Table 2: Correlations, Means, Standard Deviations, and Reliability Coefficients of the Measured Variables.....	87
Table 3: Regression Analysis of the Mediating Effects of Domain-Specific Satisfactions (Family Satisfaction and Work Satisfaction) on the Relationships between Work-to-Family Conflict and Global Life Satisfaction and between Family-to-Work Conflict and Global Life Satisfaction.....	90
Table 4: Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Family Satisfaction.....	91
Table 5: Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Family Satisfaction.....	92
Table 6: Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Work-to-Family Conflict and Family Satisfaction.....	93
Table 7: Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Family-to-Work Conflict and Family Satisfaction.....	94
Table 8: Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Work Satisfaction.....	96
Table 9: Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Work Satisfaction.....	98
Table 10: Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Work-to-Family Conflict and Work Satisfaction.....	99
Table 11: Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Family-to-Work Conflict and Work Satisfaction.....	100
Table 12: Regression Analysis Predicting Global Life Satisfaction.....	102

Table 13: Regression Analysis Predicting Family Satisfaction.....	103
Table 14: Regression Analysis Predicting Work Satisfaction.....	104

LIST OF FIGURES

Figure 1: Domain-Specific Satisfactions Mediating the Relationships between Work-to-Family Conflict and Global Life Satisfaction.....	55
Figure 2: Domain-Specific Satisfactions Mediating the Relationships between Family-to-Work Conflict and Global Life Satisfaction.....	56
Figure 3: Moderators of Work-Family Conflict / Family Satisfaction Relationships...	59
Figure 4: Moderators of Work-Family Conflict / Work Satisfaction Relationships.....	62
Figure 5: Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Work Satisfaction.....	96
Figure 6: Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Work Satisfaction.....	98

Chapter 1

Introduction

Since the 1960's, there have been dramatic changes in the family and the workforce, including an increase in the number of women working in the paid labor force and more dual-career couples. With these changing times, there has been a significant amount of research that has focused on gender-related career and family concerns and on multiple role issues (Cook, 1993; Crosby & Jaskar, 1993; Fassinger, 2000; Gilbert, 1992; Phillips & Imhoff, 1997; Thompson & Walker, 1989). More specifically, there has been a substantial amount of research on work-family conflict (Allen, Herst, Bruck, & Sutton, 2000; Greenhaus & Beutell, 1985; Kossek & Ozeki, 1998). Work-family conflict refers to conflicting role pressures between job and family that are incompatible so that participation in one role is made more difficult by virtue of participation in the other (Greenhaus & Beutell, 1985).

Earlier research conceptualized and measured work-family conflict either as (a) a global, bi-directional, unidimensional construct in which work roles interfere with family roles and vice versa (Cooke & Rousseau, 1984; Googins & Burden, 1987; Rice, Frone, & McFarlin, 1992; Staines, Pottick, & Fudge, 1986) or (b) as solely work-to-family conflict (Bedeian, Burke, & Moffet, 1988; Kopelman, Greenhaus, & Connolly, 1983). More recently, there has been empirical evidence that there are two related but distinct forms of interrole conflict (work-to-family conflict and family-to-work conflict) (Adams, King, & King, 1996; Judge, Boudreau, & Bretz, 1994; Netemeyer, Boles, & McMurrian, 1996; Perrewe, Hochwarter, & Kiewitz, 1999; Wiley, 1987). Work-to-family conflict implies that work interferes with family, and family-to-work conflict

implies that family interferes with work. The present study examined both work-to-family conflict and family-to-work conflict. It is important to note that throughout the current paper, the term work-family conflict was used to reflect conflict between work and family. The term work-family conflict does not imply direction like the terms work-to-family conflict and family-to-work conflict. Other terms such as interrole conflict were used in some studies to reflect work-family conflict.

Researchers in this area have examined the relationships between work-family conflict and various work-related and nonwork-related outcomes. More specifically, there is research that has examined the relationship between work-family conflict and life satisfaction. A meta-analysis reviewing the relationship between work-family conflict (both work-to-family conflict and family-to-work conflict) and life satisfaction found a consistent negative relationship to exist between these variables (Kossek & Ozeki, 1998). Furthermore, there is also research that has demonstrated a negative relationship between work-family conflict (both work-to-family conflict and family-to-work conflict) and the domain-specific satisfactions of work satisfaction (Bedian et al., 1988; Googins & Burden, 1987; Kossek & Ozeki, 1998; Netemeyer et al., 1996) and family satisfaction (Aryee, Luk, Leung, & Lo 1999; Beutell & Wittig-Berman, 1999; Kopelman et al., 1983; Rice et al., 1992).

In order to assist female graduate students in managing their experience of work-family conflict and the negative impact on family, work, and global life satisfaction, it is important to examine the various factors that contribute to family, work, and global life satisfaction. Many variables have been found to be significantly related to global life satisfaction. For example, research suggests that the personality trait of

extraversion is positively correlated with life satisfaction, whereas the personality trait of neuroticism is negatively correlated with life satisfaction (Diener, Emmons, Larsen, & Griffen, 1985; Pavot & Diener, 1993).

Although personality has been found to be a consistent predictor of subjective well-being and, more specifically, global life satisfaction, personality does not account for all of the variance in subjective well-being. Thus, it is important to study other variables that might explain unique variance in life satisfaction above and beyond the variance accounted for by stable personality traits. More specifically, it is important to examine cognitive and psychosocial variables (e.g., work-family conflict self efficacy and perceived social support) that might influence domain-specific satisfactions (work and family satisfaction) and global life satisfaction because, unlike stable personality traits that are often influenced by genetics, these other variables might be more amenable to change through clinical interventions.

Prior research suggests that within heterosexual couples and families, the demands of multiple roles often fall disproportionately on women (Fassinger, 2000; Gilbert, 1992; Phillips & Imhoff, 1997). Because multiple role demands often fall heavily on women within heterosexual relationships, it is important to increase our understanding of the impact of managing multiple roles and work-family conflict on the lives of women. Research exists that examines the experience of work-family conflict of women who are currently employed full-time in the paid labor force while juggling the roles of partner, mother, and homemaker (Allen et al., 2000, Kossek & Ozeki, 1998). The majority of research that has examined the relationship between work-family conflict and life satisfaction has used samples of men and women currently employed

full-time in the paid labor force and juggling family roles and responsibilities.

However, research on work-family conflict in the lives of female graduate students as they juggle the various combinations of multiple roles of student, worker, parent, and partner/spouse is limited.

Edwards (1993) suggested that as more mature women enter higher education, it becomes essential to examine the interactions between family and education, especially at a time when there is a justified concern for the future of the family unit in the Western world. Although graduate education is often difficult for both men and women, graduate school can be especially stressful for women due to factors such as increased role strain, gender role socialization, and gender-based discrimination (Mallinckrodt & Leong, 1992). Role strain can be a significant source of stress in the lives of many women (McBride, 1990). In many heterosexual relationships, women, unlike men, are expected to accommodate the new role of graduate student or working spouse without a significant lessening of their responsibilities as wife, homemaker, and mother. Since most of the research on work-family conflict and life satisfaction in the lives of women have been conducted using samples of women who are currently employed in the paid labor force and managing multiple roles, it is important to study work-family conflict in the lives of female graduate students. Thus, the present study more closely examined the relationship between work-family conflict and global life satisfaction in a female graduate student sample.

Although research has suggested that there are negative relationships between work-family conflict and life satisfaction, between work-family conflict and work satisfaction, and between work-family conflict and family satisfaction, the nature and

strength of these relationship varies widely (Kossek & Ozeki, 1998). Thus, Allen et al. (2000) suggest that differential findings in these relationships across studies may indicate that undetected mediator and moderator variables may be involved.

The present study examined mediators of the relationship between work-family conflict and global life satisfaction. “A given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion” (Baron & Kenny, 1986). Andrews and Withey (1976) conceptualized life satisfaction as a composite of domain-specific satisfactions. There is research to support the mediating role of domain-specific satisfactions (work satisfaction and family satisfaction) in the relationship between work-family conflict and global life satisfaction (Rice et al., 1992). The present study examined whether work-family conflict (work to family conflict and family to work conflict) has a direct effect on global life satisfaction and/or whether domain-specific satisfactions (work satisfaction and family satisfaction) mediate the relationship between work-family conflict and global life satisfaction.

The present study also examined moderators of the relationship between work-family conflict and domain-specific satisfactions. “A moderator is a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable” (Baron & Kenny, 1986). Information about potential moderators of these relationships can help professionals intervene in order to prevent or alleviate the negative impact of work-family conflict on family and work satisfaction and, in turn, on global life satisfaction. Self-efficacy beliefs are individuals’ beliefs about their capabilities to successfully perform a given behavior

(Bandura, 1977). Self-efficacy impacts subjective well-being and psychosocial functioning (Bandura, 1986). Individuals with high self-efficacy have greater persistence and more willingness to engage in difficult tasks (Bandura, 1982). This could have important implications for female graduate students in persisting in their experience in the demands of graduate school and family. Thus, in the present study, work-family conflict self-efficacy (both work-to-family conflict self efficacy and family-to-work conflict self-efficacy) was examined as a potential moderator of the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and domain-specific satisfactions (work satisfaction and family satisfaction). In particular, since work-family conflict self-efficacy may buffer people from life stress and hassles, it was expected that the negative relationships between work-family conflict and domain-specific satisfactions would be lower under conditions of high versus low work-family conflict self-efficacy.

Research suggests that social support is also linked to positive psychological and physical health outcomes, including subjective well-being. Cohen and Wills (1985) found that individuals with high levels of support experience fewer psychological symptoms and appear to be less affected by life stress than persons with lower levels of support. Empirical evidence suggests that social support also moderates the relationships between interrole conflict stressors and strain symptoms such that the stress-strain relationship is lower under conditions of high versus low social support (Aryee et al, 1999; Suchet & Barling, 1986). Thus, in the present study, perceived social support was also examined as a potential moderator of the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and domain-

specific satisfactions (work satisfaction and family satisfaction). Specifically, the negative relationships between work-family conflict and domain specific satisfactions were expected to be lower under conditions of high versus low perceived social support.

Results from the present study could be useful to counselors and psychologists. These professionals could apply information from the results of the present study in assisting their female clients to increase their self-efficacy in managing their multiple roles and work-family conflict, and to develop and enhance their networks of social support. Furthermore, higher education personnel could apply the results of the present study in reevaluating the demands they impose on graduate students and in designing flexible graduate programs that are responsive to the needs of female graduate students.

The present study examined the relationships of work-family conflict, work-family conflict self-efficacy, perceived social support, extraversion, and neuroticism to family, work, and global life satisfaction in a heterosexual female graduate student population. Although lesbian and gay couples experience issues and tasks of daily life similar to those that heterosexual couples experience, lesbian and gay couples must manage these issues and tasks within an environment in which they are often stigmatized and isolated (Fassinger, 2000). In addition, empirical evidence indicates that most lesbian and gay couples, as compared to heterosexual couples, hold and display gender role beliefs and behaviors that are nonstereotypic, desire equal distribution of power within their relationships, and report more satisfaction within their relationships when they see their relationships as egalitarian (Blumenstein & Schwartz, 1983; Bohan, 1996; Eldridge & Gilbert, 1990; Kurdeck, 1995; Peplau, 1991; Scrivner & Eldridge, 1995 as cited in Fassinger, 2000). Thus, although both lesbian and heterosexual couples may often be

faced with multiple roles, there may be differences in the ways in which homosexual women and heterosexual women manage multiple roles and in the issues related to the management of multiple roles. Therefore, it is important to study these two groups separately in order to compare the similarities and differences between homosexual and heterosexual women with regard to the process of experiencing and negotiating work-family conflict. In an attempt to maintain some homogeneity within the sample, the present study used a sample of heterosexual female graduate students.

In summary, although there is a body of literature on work-family conflict in the lives of women who are currently employed in the paid labor force while simultaneously juggling the roles of mother, partner, and homemaker, there is a lack of research that directly examines the work-family conflict issues of female graduate students. The present study sought to shed light on this process by examining how work-family conflict relates to a variety of mediator, moderator, and outcome variables.

Chapter 2

Review of Literature

The present study sought to explore the extent to which work-family conflict (work-to-family and family to work conflict) can predict female graduate students' work and family satisfaction and global life satisfaction. The present study also examined the mediating role of domain-specific satisfactions (work satisfaction and family satisfaction) in the relationship between work-family conflict and global life satisfaction. In addition, the present study examined the role of self-efficacy (work-to-family conflict self-efficacy and family-to-work conflict self-efficacy) and perceived social support in moderating the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and domain-specific satisfactions (work satisfaction and family satisfaction). This chapter presents a review of the literature in the following areas: (a) subjective well being (more specifically, domain-specific and global life satisfaction); (b) work-family conflict; (c) predictors of subjective well-being, including personality (extraversion and neuroticism), self-efficacy, and social support, and; (d) the stressors and multiple roles of female graduate students.

Subjective Well-Being

Since the present study examined the relationship between female graduate students' work-family conflict (work-to-family conflict and family-to-work conflict) and domain-specific satisfaction and global life satisfaction, it is important to review the literature on the predominant conceptualization of subjective well-being.

Diener's Conceptualization of Subjective Well-Being. Over the past 20 years, there has been a dramatic increase in subjective well-being research (Diener, 1984; Diener &

Larsen, 1992; Pavot & Diener, 1993; Ryan & Deci, 2001). Subjective well-being has been conceptualized as having an affective component and a cognitive component. The affective component consists of positive affect and negative affect (Diener & Emmons, 1984). The cognitive component is conceptualized as life satisfaction (Andrews & Withey, 1976). Based on a review of the subjective well-being literature, Diener (1984) found a substantial amount of empirical evidence suggesting a tripartite model of subjective well-being. More specifically, the tripartite model of subjective well-being suggests that subjective well-being consists of an individual's self-report of the presence of positive affect, the absence of negative affect, and the cognitive evaluation of life satisfaction. Individuals' self-reports of satisfaction have both a global component and a domain-specific (e.g., work satisfaction, family satisfaction) component (Diener et al., 1999).

The affective and cognitive components of subjective well-being are moderately correlated, and many subjective well-being measures consist of both the affective and cognitive components (Chamberlain, 1988). However, some researchers have also found separate satisfaction and affect components (Andrews & Withey, 1976; Lucas, Diener, & Suh, 1996). Andrews and Withey (1976) found that life satisfaction formed a separate factor from the two major types of affect. Lucas et al. (1996) used multitrait-multimethod analyses to show that positive affect, negative affect, and life satisfaction were separate constructs. More specifically, research has suggested that the affective components and the cognitive components sometimes function differently over time and have different relationships with other variables (Beiser, 1974; DeHaes et al. 1987). Pavot and Diener (1993) point out that since the affective and cognitive components of

subjective well-being have been found to be somewhat separate and distinct, studying these components separately can provide valuable information.

Up until 20 years ago, researchers had focused a great deal of attention on the affective components of subjective well-being (Pavot & Diener, 1993). On the other hand, the cognitive component of life satisfaction had received less attention in the research literature (Diener et al., 1985). Since life satisfaction often forms a separate and distinct factor from positive and negative affect, and correlates with various predictor variables in unique ways, it is important to separately study this variable (Pavot & Diener, 1993). Since the present study examined domain-specific satisfactions and global life satisfaction of female graduate students who are experiencing work-family conflict (work-to-family conflict and family-to-work conflict), the following sections will take a closer look at global life satisfaction and domain-specific satisfactions.

Global life satisfaction. According to Shin and Johnson (1978), life satisfaction is based on a judgmental process in which individuals assess the quality of their lives on the basis of their own unique set of criteria. More specifically, life satisfaction involves the comparison of one's perceived life circumstances with a self-imposed standard or set of standards. Individuals experience high life satisfaction when their perceived life circumstances match their self-imposed standard or set of standards. Furthermore, according to DeNeve and Cooper (1998), life satisfaction is based on the cognitive evaluation of the quality of one's experiences that span an individual's entire life.

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) was developed to measure an individual's global life satisfaction. Many variables have been found to be

significantly related to the global construct of life satisfaction. For example, the personality trait of extraversion has been found to be positively correlated with life satisfaction as measured by the SWLS, whereas the personality trait of neuroticism has been found to be negatively correlated with life satisfaction (Diener et. Al, 1985; Pavot & Diener, 1993). Similarly, research has found that positive affectivity is positively correlated with life satisfaction, and negative affectivity is negatively correlated with life satisfaction (George, 1991). For example, George (1991) found that the correlation between positive affectivity and life satisfaction was .47 and the correlation between negative affectivity and life satisfaction was -.26. Furthermore, life satisfaction as measured by the SWLS has been shown to be negatively correlated with measures of distress. Blais, Vallerand, Pelletier, and Briere (1989, as cited in Pavot & Diener, 1993) found a strong negative correlation ($r = -.72$) between life satisfaction as measured by SWLS and depression as measured by the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). In addition, Arrindell, Meeuwesen, and Huysse (1991, as cited in Pavot and Diener, 1993) reported that life satisfaction was negatively correlated with anxiety ($r = -.54$), depression ($r = -.55$), and general psychological distress ($r = -.55$).

Domain-specific satisfaction. Andrews and Withey (1976) conceptualized life satisfaction as a composite of domain-specific satisfactions. Results from their research on four nationally representative probability samples of American adults (N=5000) provided support for an additive model. More specifically, the additive model of overall quality of life (life satisfaction) posits that satisfaction with each specific domain of life (e.g. work, family) combines additively to determine overall quality of life, or

global life satisfaction (Andrews & Withey, 1976; Rice et al. 1992). In other words, a person's report of global life satisfaction is determined by the sum of the domain-specific life satisfactions. According to a strict additive model, indicators of domain-specific satisfaction are the only direct determinants of global life satisfaction. Thus, the effects of any other variable on global life satisfaction (such as work-family conflict) must be indirect (i.e., mediated by the satisfaction in one or more domains). The present study examined whether work-family conflict (work-to-family conflict and family-to-work conflict) has a direct effect on global life satisfaction and/or whether domain-specific satisfactions (work satisfaction and family satisfaction) mediate the relationship between work-family conflict and global life satisfaction. Thus, the next section will review the research literature on the relationships between work-family conflict and global life satisfaction and between work-family conflict and domain-specific satisfaction (work satisfaction and family satisfaction).

Work-Family Conflict

Since the present study examined the relationships among female graduate students' work-family conflict, domain-specific satisfactions, and life satisfaction, this section will provide an overview of the measurement of work-family conflict and will review the research on the relationship between work-family conflict and life satisfaction, and the research on the relationship between work-family conflict and satisfaction in the specific life domains of work and family.

Measurement of work-family conflict. Some of the work-family conflict research has focused on construct measurement, including the measurement of the direction and process of interaction between work roles and family roles (Kossek & Ozeki, 1998).

Earlier studies defined and assessed work-family conflict as a global, bi-directional, unidimensional construct in which work roles interfere with family roles and vice versa (Cooke & Rousseau, 1984; Googins & Burden, 1987; Rice et al., 1992; Staines et al., 1986). For example, Staines et al. (1986) assessed work-family conflict by asking participants one basic interference question, “How much do your job and your family life interfere with each other,” using a range of 1 (not at all) to 4 (a lot). Other studies have treated work-family conflict as solely work-to-family conflict, assessing the extent to which job responsibilities interfered with or impeded family responsibilities (Bedeian et al., 1988; Kopelman et al., 1983). Kopelman et al. (1983) developed a four-item scale and then expanded it to an eight-item scale that measured work-to-family conflict with such items as “My work schedule often conflicts with my family life.”

More recently, research has treated family-to-work conflict and work-to-family conflict as related but distinct forms of interrole conflict (Adams et al., 1996; Judge et al., 1994; Netemeyer et al., 1996; Perrewe et al., 1999; Wiley, 1987). More specifically, work-to-family conflict implies that work interferes with family and family-to-work conflict implies that family interferes with work. Gutek, Searle, and Klepa (1991) measured work-family conflict with two four-item scales; the four items that measured work-to-family conflict were developed by Kopelman et al. (1983) and the four items that measured family-to-work conflict paralleled the work-to-family conflict items and were developed by Burley (1989, as cited in Gutek et al., 1991). A factor analysis with varimax rotation indicated that the items for the two conflict scales loaded on separate factors (Gutek et al., 1991). The correlation between the two conflict scales was .26. Based on two studies, Gutek et al. (1991) reported coefficient

alphas of .81 and .83 for work-to-family conflict items and .79 and .83 for family-to-work conflict items. Netemeyer et al. (1996) also developed and validated scales of work-to-family conflict (WFC) and family-to-work conflict (FWC) with five items each. Reliability coefficients ranged from .82 to .90 for the WFC and FWC scales among three samples. They discussed the advantages that their WFC and FWC scales had over other scales that measured these constructs in previous research. For instance, prior research had used single-item measures of the constructs, with uncertain reliability and validity characteristics (Rice et al., 1992).

Work-family conflict and life satisfaction. Prior research has suggested that there is a negative relationship between work-family conflict and life satisfaction. However, Kossek and Ozeki (1998) point out that the nature and strength of this relationship varies widely. Allen et al. (2000) argued that differential findings across studies in the relationship between work-family conflict and life satisfaction suggests that undetected moderator variables may be involved.

In this section, a variety of studies that examine the relationship between work-family conflict and life satisfaction will be reviewed. Some of these studies conceptualized work-family conflict as a global, bidirectional, unidimensional construct (Cooke & Rousseau, 1984; Googins & Burden, 1987; Staines et al., 1986). In their study of 200 Michigan elementary and secondary public school teachers, Cooke and Rousseau (1984) hypothesized that the stressors (work overload and interrole conflict) are positively related to the psychological strain symptoms of job and life dissatisfaction and physical strain symptoms. The interrole conflict index consisted of two questions with responses ranging from 1 (low conflict) to 4 (high conflict). A sample item was

“How much do your job and free-time activities interfere with each other?” The interrole conflict index also included two variables that were developed based on each participant’s response to an open-ended question “Could you tell me what problems or difficulties you run into concerning the hours you work, your work schedule, or overtime?” A work/nonwork interference variable and a family-problem variable were developed. In regard to creating the work-nonwork interference variable, participants who mentioned some type of interference between work and nonwork were assigned a 4 and those who did not mention any interference were assigned a 1. In regard to creating a family-problem variable, participants who mentioned any type of family problem (e.g., with their spouse, children, parent) due to their work hours were assigned a 4 and those who did not mention any family problems due to their work hours were assigned a 1. The mean of these four items was then used for the interrole conflict score.

Cooke and Rousseau (1984) did not find a significant positive correlation between interrole conflict and life dissatisfaction. The lack of a significant positive relationship between interrole conflict and life dissatisfaction could be due to the marginal reliability estimates of the scales or some other problem with the psychometric properties of the scales used to measure interrole conflict and life dissatisfaction. For example, Cronbach’s alpha for the interrole conflict measure was .69 and for life dissatisfaction, it was .70. Since a reliability estimate of .80 or higher is often recommended (Heppner, Kivlighan, & Wampold, 1999), the reliability of both measures could be of concern in the study conducted by Cooke and Rousseau (1984). In addition, validity data on the interrole conflict measure were not discussed.

Staines et al. (1986) conducted a study to better understand the relationship between wives' employment and husbands' job and life satisfaction. They used data from the national sample of 1,515 American workers selected from the 1977 Quality of Employment Survey (Quinn & Staines, 1979). Staines et al. analyzed two groups of employed husbands younger than age 65 from this national sample. The two groups included employed husbands whose wives engaged in paid work at least 20 hours a week (N = 208) and employed husbands whose wives did not engage in paid work (N = 408).

In their study Staines et al. (1986) found that husbands whose wives were employed report significantly lower levels of job and life satisfaction than husbands of housewives. They examined possible reasons for the negative relationship between wives' employment and husbands' life satisfaction. They proposed that husbands' daily home lives may become increasingly burdensome and likely to interfere with their work responsibilities when their wives are engaged in paid work. In order to test this proposition, they examined what they termed "domestic burdens" which included husbands' amount of child care and housework, husbands' perceptions of wives' preferences for husbands' involvement in childcare and housework, work-family conflict, and how much family members help these husbands with their job-related tasks. These domestic burden variables were added to the regression equation. These variables did not contribute significantly to the prediction of husbands' life satisfaction. Thus, there was no support for the proposition that life satisfaction of husbands with employed wives was related to domestic burdens, including feelings of work-family conflict. However, there might be psychometric problems with their work-family

conflict measure. Staines et al. (1986) measured work-family conflict with one basic interference question, "How much do your job and your family life interfere with each other?" Response options ranged from not at all (1) to a lot (4). No reliability or validity data were reported on this measure. Thus, these psychometric issues might contribute to the failure to find a significant negative relationship between work-family conflict and life satisfaction.

Googins and Burden (1987) examined job-family role strain among employees of a large corporation and the effects of multiple role demands on particular subgroups of employees based on marital and parental status. Job-family role strain was defined as the internal emotions and concerns about fulfilling both family and work roles. The researchers investigated how multiple role responsibilities affect men and women, parents and nonparents, and single and married employees.

Participants in the study were 711 full-time employees at three work sites of a large corporation in the northeastern United States. The first site included white-collar management staff, the second site involved nonmanagement, clerical staff, and the third site included blue-collar, nonmanagement staff, who worked outdoors doing physical labor. In order to examine whether certain groups of employees were more vulnerable to job-family role strain and reduced well-being, the researchers divided the participants into eight groups based on marital and parental status. Married male participants were divided based on employment status of spouse. There was a total of 10 groups.

A one-way ANOVA indicated that female parent employees experienced reduced levels of well-being compared with men. However, correlation analysis indicated that the job-family role strain, not gender, was the main factor associated with reduced well-

being. Job-family role strain was the most important factor related to all measures of reduced well-being including lower life satisfaction ($r = -.40$; $p < .001$). Job-family role strain was not associated with gender. Male employees with family responsibilities similar to female employees were likely to report the same levels of job-family role strain and decreased levels of well-being as female employees. It is important to note that a limitation of the study conducted by Googins and Burden (1987) was that the sample consisted of predominantly Caucasian, middle-class individuals. More specifically, the males in the sample primarily were Caucasian, married, managers, whereas the females primarily were Caucasian, lower paid, nonmanagers. These differences in demographics among the male and female samples could reflect differences in education levels. Thus, external validity is limited and caution should be exercised when applying the findings of the study.

There have been other studies that have examined the relationship between work-family conflict and life satisfaction in which work-family conflict was conceptualized and assessed as work-to-family conflict (Bedeian et al., 1988; Kopelman et al., 1983). Kopelman et al. (1983) developed the interrole conflict scale to measure the extent to which a person experiences pressures within one role that are incompatible with the pressures that arise within another role. Kopelman et al. (1983) conducted two studies to determine the construct validity of the interrole conflict (work-to-family conflict) measure they developed. Study 1 consisted of a sample of 181 married and employed male alumni of a technological college. Study 2 consisted of a sample of 91 undergraduate and graduate students who were married and employed full-time. They found a significant negative correlation between interrole conflict and life satisfaction in

Study 1 ($r = -.32, p < .01$) and in Study 2 ($r = -.29, p < .01$). In addition, in their study of 423 male accountants and 335 female accountants, Bedeian et al. (1988) reported that their correlation analyses indicated that there was a significant relationship between work-family conflict and life satisfaction for both male accountants ($r = -.46, p < .01$) and female accountants ($r = -.42, p < .05$).

It is important to note that Kopelman et al. (1983) and Bedeian et al. (1988) were measuring work-to-family conflict. The eight items of the interrole conflict scale developed by Kopelman et al. asked about conflict arising from career roles and responsibilities interfering with family roles and responsibilities. They referred to work-to-family conflict as interrole conflict without providing a clear explanation of the different types of interrole conflict including work-to-family and family-to-work. This study was one of the earlier studies in this area of interrole conflict and life satisfaction. The interrole conflict scale that Kopelman et al. developed was clearly a work-to-family conflict scale. Likewise, Bedeian et al. (1988) measured work-family conflict using an eight-item scale which was adapted from a measure developed by Burke, Weir, and Duwors (1980). This work-family conflict scale assessed the extent to which current job demands had an impact on the home and family life of the participants. They also did not provide a rationale for choosing to measure solely work-to-family conflict. It is clear that at that point in time in the early to mid-1980's, there was a desire to study work-family conflict. However, Kopelman et al. (1983) and Bedeian et al. (1988) treated work-to-family conflict as if it were the only type of interrole conflict since they made no reference to other types of interrole conflict. Thus, research that focused on both work-to-family conflict and family-to-work conflict was clearly needed.

More recently, there have been studies that have examined the relationship between work-family conflict and life satisfaction in which work-family conflict was conceptualized as two distinct constructs, work-to-family and family-to-work conflict (Adams et al., 1996; Judge et al., 1994; Netemeyer et al., 1996; Perrewe et al., 1999; Wiley, 1987). Wiley (1987) provided a clear rationale for the need to examine specific forms of interrole conflict. She explained how the bulk of empirical studies up to that point had treated interrole conflict as a unidimensional construct or had only examined work-to-family conflict as the sole form of interrole conflict. In her study, Wiley (1987) examined various types of work/nonwork role conflict including work-to-family conflict and family-to-work conflict. She predicted that conflict between work and nonwork roles would be negatively related to life satisfaction, job satisfaction, job involvement, and organizational commitment.

Participants in the study were 191 MBA students and other graduate students (101 female and 90 male) who were taking evening classes at a large university in the Southeast. Conflict between work and nonwork roles was measured with 22 items using a Likert-scale. The items were chosen from a 50-item interrole conflict scale (Burke et al., 1980), and were selected based on the extent to which they assessed the work role interfering with both family and personal roles. Some items were also reworded to measure nonwork roles interfering with the work role. Responses to the 22 items were then factor analyzed. Wiley (1987) identified four factors. The first factor, "job/person conflict," assessed interference of the work role with nonwork life. The second factor was "role overload." The third factor, "job/family conflict," assessed interrole conflict dealing with interference of the work role specifically with family

roles. The fourth factor, “family/job conflict,” assessed interference of personal roles with the work role.

Multiple regression analyses were next conducted. Each of the outcome variables (life satisfaction, job satisfaction, job involvement, and organizational commitment) was regressed on the four role conflict variables (job/person, job/family, family/job, and role overload). The four role conflict variables collectively were significantly related to life satisfaction ($R^2=.11$, $p<.001$). As predicted, there were significant negative relationships between job/family conflict and life satisfaction ($r= -.26$, $p<.001$) and between family/job conflict and life satisfaction ($r= -.22$, $p<.001$). Overall, from the results of her study, Wiley (1987) emphasized the importance of examining various forms of interrole conflict including both work-to-family conflict and family-to-work conflict. By doing so, we can better understand how different dimensions of interrole conflict relate to various outcomes, including life satisfaction.

Netemeyer et al. (1996) developed and validated scales of work-to-family conflict (WFC) and family-to-work conflict (FWC). Each scale had five items. In order to test the construct validity of the WFC and FWC scales, Netemeyer et al. (1996) examined various relationships between WFC and FWC and 16 various on-job and off-job constructs. Netemeyer et al. predicted that there would be negative correlations between WFC and life satisfaction, and between FWC and life satisfaction. Correlation analyses were conducted. As predicted, across all three samples, there were negative correlations between WFC and life satisfaction ($r= -.33$, $p<.01$ for Sample 1; $r= -.41$, $p<.01$ for Sample 2; $r= -.53$, $p < .01$ for Sample 3), and between FWC and life satisfaction ($r = -.44$, $p < .01$ for Sample 1; $r = -.32$, $p < .01$ for Sample 2; $r = -.35$, $p < .01$ for

Sample 3). Likewise, in their study of 163 full-time workers who were enrolled in weekend or evening classes, Adams et al. (1996) found that there was a negative relationship between work interfering with family and life satisfaction ($r = -.25, p < .01$) and between family interfering with work and life satisfaction ($r = -.16, p < .05$).

Judge et al. (1994) proposed and tested a model of male executives' job and life attitudes consisting of five constructs including job satisfaction, life satisfaction, job stress, work-to-family conflict, and family-to-work conflict. They hypothesized that work-to-family conflict would be negatively related to life satisfaction. Judge et al. explained that a link between family-to-work conflict and life satisfaction was not hypothesized in their model because family-to-work conflict directly influences work rather than life in general, and any influence of family-to-work conflict on life satisfaction would operate through job satisfaction since that is part of the work domain. Thus, it was also hypothesized that family-to-work conflict would be negatively related to job satisfaction. Furthermore, it was hypothesized that there would be a reciprocal, positive link between job satisfaction and life satisfaction.

Participants in the study consisted of a large, representative sample of male executives. Work-to-family conflict and family-to-work conflict were assessed using scales developed by Gutek et al. (1991). Results indicated that work-to-family conflict was negatively related to life satisfaction. Thus, executives who experienced higher levels of work-to-family conflict reported lower levels of life satisfaction. However, the hypothesis that family-to-work conflict influences job satisfaction was not supported. The generalizability of the results is limited to Caucasian male executives since 98% of the male executives were Caucasian.

Perrewe et al. (1999) point out that although there has been research evidence that indicates that there is a negative relationship between work-family conflict and life satisfaction, there has been very little research that has examined why work-family conflict is related to life satisfaction. Thus, Perrewe et al. investigated why work-family conflict is related to life satisfaction and, more specifically, examined the role that value attainment plays in mediating the relationships between work-family conflict and life satisfaction, and between work-family conflict and job satisfaction.

Perrewe et al. (1999) cited research indicating that values and value attainment are key antecedents to satisfaction (George & Jones, 1996). They also point out that experiences such as work-family conflict can either aid or prevent the attainment of values. Thus, they suggested that work interference with family (WIF) and family interference with work (FIW) would have a negative influence on job and life satisfaction because the WIF and FIW conflict would reduce individuals' belief that they could attain their values. Therefore, they hypothesized that value attainment would mediate the relationships between WIF and life satisfaction and between FIW and life satisfaction. The same hypotheses were made for job satisfaction.

Participants in the study were 267 managers of hotels throughout the southern and northeastern parts of the United States. WIF and FIW were two distinct constructs ($r = .08$). The results of the study indicated that there were positive correlations between value attainment and life satisfaction ($r = .46, p < .001$). There were negative correlations between value attainment and WIF ($r = -.27, p < .001$), and between value attainment and FIW ($r = -.10, p < .10$). In addition, WIF was negatively correlated with

life satisfaction ($r = -.22, p < .001$). Likewise, FIW was negatively correlated with life satisfaction ($r = -.11, p < .05$).

In order to test whether there was a mediating effect of value attainment on the relationship between work-family conflict (WIF and FIW) and life satisfaction, Perrewe et al. (1999) conducted a series of regression equations. WIF had a negative relationship with life satisfaction ($\beta = -.18, p < .01$), and when they entered value attainment into the regression equation, the negative relationship between WIF and life satisfaction decreased ($\beta = -.08, p < .10$). Similarly, FIW had a negative relationship with life satisfaction ($\beta = -.13, p < .01$), and when they entered value attainment into the regression equation, the negative relationship between FIW and life satisfaction decreased ($\beta = -.07, ns$). In both instances, results are consistent with a partial mediating effect of value attainment on conflict-satisfaction relations.

The results indicating that both WIF and FIW had negative relationships with value attainment, that WIF and FIW had negative relationships with life satisfaction, and that the strength of the relationships between the two forms of work-family conflict (WIF and FIW) and life satisfaction dropped when value attainment was added to the regression equation allowed Perrewe et al. (1999) to conclude that value attainment was a significant mediator in the relationships between WIF and life satisfaction, and FIW and life satisfaction. Thus, from these results, they inferred that one explanation as to why work-family conflict has a negative effect on life satisfaction is because of the negative effect that work-family conflict (WIF and FIW) has on value attainment.

From this review of the research that has examined the relationship between work-family conflict and life satisfaction, it is evident that quite a few studies demonstrate a

negative relationship between work-family conflict and life satisfaction. The correlations between family-to-work conflict and life satisfaction have ranged from -.11 (Perrewe et al., 1999) to -.44 (Netemeyer et al., 1996) and the correlations between work-to-family conflict and life satisfaction have ranged from -.18 (Judge et al., 1994) to -.53 (Netemeyer et al., 1996). Thus, as people experience increased conflict between their roles and responsibilities in both work and family domains, their level of life satisfaction decreases. However, some studies did not find a significant relationship between work-family conflict and life satisfaction. It appears that the nature and strength of this relationship is widely variable. Some of the inconsistent findings may be due to differences in the way in which work-family conflict was conceptualized, differences in the measures of work-family conflict and life satisfaction, and differences in the samples studied. For instance, it appears that when work-family conflict was conceptualized and assessed as a global, bi-directional, unidimensional construct, a significant negative relationship between work-family conflict and life satisfaction was less often found. Overall, it appears that there is often a negative relationship between work-family conflict and life satisfaction, and that there might be various variables that mediate or moderate this relationship.

Work-family conflict and domain specific satisfaction. In addition to studies that have examined the relationship between work-family conflict and global life satisfaction, there have been studies that have examined the relationship between work-family conflict and satisfaction in various domains of life, particularly in work and family.

A few studies have examined the relationship between work-family conflict and family satisfaction. Kopelman et al. (1983) found that work-to-family conflict was negatively related to family satisfaction in a sample of 181 married and employed male alumni of a technological college ($r = -.24$, $p < .01$) and in a sample of 91 undergraduate and graduate students who were married and employed full-time ($r = -.27$, $p < .05$). Rice et al. (1992) conceptualized work-family conflict as a global, bidirectional, unidimensional construct and assessed work-family conflict with one basic interference question, "How much does your job and your family life interfere with each other." Rice et al. (1992) found that work-family conflict and family satisfaction were negatively correlated ($r = -.17$, $p < .01$) in a sample of 823 respondents who were at least 18 years old, worked at least 35 hours per week, and were married or parents of children under 18. In addition, in a sample of 243 Hong Kong Chinese employed parents in dual-earner families, Aryee, Luk, Leung, and Lo (1999) found that work-to-family conflict was negatively related to family satisfaction ($r = -.19$, $p < .05$). Furthermore, in their study of 177 married, employed MBA and public administration students, Beutell and Wittig-Berman (1999) reported that family-to-work conflict was negatively correlated with family satisfaction ($r = -.21$, $p < .01$) and work-to-family conflict was negatively correlated with family satisfaction ($r = -.25$, $p < .01$).

Research also indicates that there is a negative relationship between work-family conflict and work satisfaction. Research shows that the relationship between work-family conflict measures and work satisfaction is negative across all samples (Kossek & Ozeki, 1998). Using a sample of accounting professionals, Bedeian et al. (1988) found a negative relationship between work-to-family conflict and job satisfactions for men (-

.29, $p < .01$) and for women ($r = -.27$, $p < .01$). Googins and Burden (1987) found a negative correlation ($r = -.31$, $p < .001$) between job-family role strain and job satisfaction in a sample of 711 full-time employees at a large corporation in the northeastern United States. Furthermore, Netemeyer et al. (1996) found significant negative relationships between work-to-family conflict and job satisfaction and between family-to-work conflict and job satisfaction in three different samples. More specifically, in their sample of 182 elementary and high school teachers and administrators, there was a correlation of $-.36$ ($p < .01$) for work-to-family conflict and job satisfaction, and a correlation of $-.30$ ($p < .01$) for family-to-work conflict and job satisfaction. In their sample of 162 small business owners, there was a correlation of $-.21$ ($p < .01$) for work-to-family conflict and job satisfaction, and a correlation of $-.16$ ($p < .05$) for family-to-work conflict and job satisfaction. In their sample of 186 real estate salespeople, there was a correlation of $-.27$ ($p < .01$) for work-to-family conflict and job satisfaction, and a correlation of $-.22$ ($p < .01$) for family-to-work conflict and job satisfaction.

There is also research to support the mediating role of domain-specific satisfactions, including work and family satisfaction, in the relationship between work-family conflict and global life satisfaction. Rice et al. (1992) conducted a study to investigate variables that mediate the relationship between work-nonwork conflict and overall quality of life as measured by an index of global life satisfaction. Their model proposed that work-nonwork conflict has an indirect effect on overall quality of life, which is mediated by satisfaction with work life and/or satisfaction with nonwork life.

Rice et al. (1992) hypothesized that the relationship between work-family conflict and global life satisfaction is mediated by domain-specific satisfaction including job and family satisfaction. They hypothesized that work-family conflict would be negatively related to job and family satisfaction. They hypothesized that job and family satisfaction would be positively related to global life satisfaction. In addition, they hypothesized that work-family conflict is not directly related to global life satisfaction after controlling for domain-specific satisfactions (job and family satisfaction).

The correlation between work-family conflict and global life satisfaction was $-.18$ ($p < .05$). The correlations between work-family conflict and family satisfaction was $-.13$ ($p < .05$) and between work-family conflict and job satisfaction was $-.18$ ($p < .05$). The correlations between family satisfaction and global life satisfaction was $.52$ ($p < .05$) and between job satisfaction and global life satisfaction was $.45$ ($p < .05$). Results of path analyses indicated that the direct path between work-family conflict and global life satisfaction was nonsignificant, as hypothesized. When the domain-specific satisfaction scores were statistically controlled, work-family conflict did not have a significant relationship with global life satisfaction ($\beta = .00$). As hypothesized, the indirect paths between work-family conflict and global life satisfaction were all significant. Work-family-conflict was a significant predictor of job satisfaction ($\beta = -.11$) and family satisfaction ($\beta = -.11$). Job satisfaction and family satisfaction were significant predictors of global life satisfaction ($\beta = .34$ and $.43$, respectively). Based on this finding, Rice et al. (1992) concluded that job and family satisfaction mediated the relationship between work-family conflict and global life satisfaction. It is important to continue to further examine the mediating role of domain specific

satisfactions in the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and life satisfaction.

Overall, research has found a negative relationship between work-family conflict and life satisfaction. In addition, research has found negative relationships between work-family conflict and relevant domain-specific satisfactions of work satisfaction and family satisfaction. There is some empirical evidence that suggests that domain specific satisfactions mediate the relationship between work-family conflict and global life satisfaction (Rice et al., 1992) However, Rice et al. conceptualized and measured work-family conflict as a global, bi-directional, unidimensional construct (“How much does your job and your family life interfere with each other?”). More research is needed to examine domain-specific satisfactions (family satisfaction and work satisfaction) as mediators of the relationships between work-to-family conflict and global life satisfaction and between family-to-work conflict and global life satisfaction. Thus, the present study examined the role of work satisfaction and family satisfaction in mediating the relationships between work-family conflict (work-to-family conflict and family-to-work conflict) and life satisfaction.

The present study also examined the extent to which (and manner in which) the personality traits of extraversion and neuroticism, work-family conflict self-efficacy, and perceived social support relate to domain-specific satisfactions (work satisfaction and family satisfaction) and global life satisfaction. Personality traits, self-efficacy, and perceived social support are all important correlates of subjective well-being. The following sections will provide an overview of these constructs and their relationship with subjective well-being.

Personality and Subjective Well-Being

There is research that suggests that subjective well-being is somewhat stable. Diener and Larsen (1984) found that the correlation between individuals' life satisfaction in social situations and their life satisfaction when they are alone was .92, and the correlation between pleasant affect in work situations and pleasant affect in leisure situations was .72. Research suggests that individuals do have stable characteristic emotional and cognitive responses to various life settings and experiences. In addition, research suggests that these characteristic responses are somewhat stable over time. For instance, research indicated a correlation of .58 between measures of life satisfaction over four years (Magnus & Diener, 1991, as cited in Diener, Lucas, & Oishi, 2002).

Researchers have suggested that subjective well-being is greatly influenced by genetics and is somewhat stable across the life span (DeNeve, 1999). Some theorists have suggested based on prior research that people are biologically predisposed to certain levels of subjective well-being (Headey & Wearing, 1992). There is some research that suggests that there is a genetic influence on subjective well-being which may help to explain the stability and consistency of subjective well-being. In other words, people are biologically predisposed to be happy or unhappy. In their study of personality similarities in monozygotic and dizygotic twins reared apart and together, Tellegen, Lykken, Bouchard, Wilcox, Segal, and Rich (1988) found that genetics accounted for 40% of the variance in positive affect and 55% of the variance in negative affect.

There is a substantial amount of research that suggests that subjective well-being is strongly related to stable personality traits. Research has suggested that personality

traits may be one of the strongest predictors of subjective well-being (Diener, 1984; Diener, 1996; Diener & Larsen, 1993; McCrae & Costa, 1991). Diener and Lucas (1999) suggest that the personality traits that are most consistently related to subjective well-being are extraversion and neuroticism. Extraversion and neuroticism are the personality traits that have received the most theoretical and empirical attention in relation to subjective well-being (Diener & Lucas, 1999; McCrae & Costa, 1991). Extraversion is associated with high levels of energy and enthusiasm, and neuroticism is associated with high levels of negative mood and self-concept (Robbins & Kliever, 2000). McCrae and Costa (1991) describe the temperamental view which suggests that certain personality traits, such as extraversion and neuroticism, directly lead to subjective well-being. DeNeve and Cooper (1998) conducted a meta-analysis to examine 137 personality traits as correlates of subjective well-being. In their meta-analysis of 197 samples with more than 40,000 adults, DeNeve and Cooper (1998) found that of the “big five” traits (Costa & McCrae, 1992), extraversion and agreeableness were consistently positively related to subjective well-being, and neuroticism was consistently negatively related to subjective well-being. Furthermore, from their meta-analysis, DeNeve and Cooper (1998) found that personality was found to be equally predictive of life satisfaction and positive affect, but significantly less predictive of negative affect. They also found that neuroticism was the strongest predictor of life satisfaction (average weighted correlation of $-.24$) and negative affect (average weighted correlation of $.23$).

In sum, although genetics and personality account for a large proportion of variance in subjective well-being, there is still additional variance in subjective well-being that

needs to be explained and which could be accounted for by psychosocial and cognitive variables that are more amenable to change through clinical interventions. Given that the personality traits of extraversion and neuroticism have consistently been shown to account for significant variance in subjective well-being, the present study examined the contribution of other variables to the variance of life satisfaction after controlling for the effects of extraversion and neuroticism. Thus, in the present study, the amount of variance in life satisfaction and domain-specific satisfactions accounted for by stable personality traits (extraversion and neuroticism) was examined, in addition to the amount of unique variance that is accounted for by work-family conflict, work-family conflict self-efficacy, and perceived social support.

In the present study, domain-specific satisfactions (work satisfaction and family satisfaction) were expected to mediate the relationship between work-family conflict and life satisfaction. Other theoretical variables were examined as possible moderators of the relationship between work-family conflict and domain specific satisfactions. Thus, the following section will explore some important predictors of subjective well-being that may act as moderators of the relationship between work-family conflict and domain-specific satisfactions. These potential moderators include work-family conflict self-efficacy and perceived social support.

Self-Efficacy and Subjective Well-Being

In the present study, work-family conflict self-efficacy was examined as a potential moderator of the relationship between work-family conflict and domain specific satisfactions.

In social cognitive theory, Bandura (1986) presented a model of triadic reciprocity in which internal person factors (including cognitive and affective states), external environmental factors, and overt behavioral factors all interact dynamically and influence one another bidirectionally. Within this model of triadic reciprocity, social cognitive theory examines various sociocognitive variables, including self-efficacy beliefs, that impact psychosocial functioning (Bandura, 1986). Self-efficacy beliefs are individuals' beliefs about their capabilities to successfully perform a given behavior (Bandura, 1977). These beliefs are seen as playing an important role in an individual's choice of activities and environments. Social cognitive theory suggests that individuals' beliefs about what they can do (self-efficacy beliefs) influence individuals' goal intentions and behaviors (Bandura, 1986). Furthermore, social cognitive theory posits that self-efficacy beliefs help to determine whether an action will be performed, how much effort will be expended in performing the action, amount of persistence when obstacles arise, and overall level of performance (Bandura, 1986). More specifically, individuals with strong self-efficacy beliefs, that is, those who believe that they can perform certain behaviors required to achieve specific valued goals, have greater persistence and more willingness to engage in difficult tasks (Bandura, 1982).

Research has revealed that self-efficacy beliefs develop as a result of personal performance accomplishments, vicarious learning, social persuasion, and physiological states and affective reactions (Lent & Brown, 1996; Lent, Brown, & Hackett, 1994). Lent, Lopez, Brown, and Gore (1996) found that these four mechanisms represented distinct, though interrelated sources of students' self-efficacy beliefs. In addition, Lopez, Lent, Brown, & Gore (1997) found that personal performance accomplishments

were the strongest predictors of mathematics self-efficacy. In a study of 138 college students, Lent, Lopez, and Bieschke (1991) found that each of the four source variables (personal performance accomplishments, vicarious learning, social persuasion, and physiological states and affective reactions) correlated significantly with mathematics self-efficacy, except for the vicarious learning source variable in women. Furthermore, among these four informational sources, personal performance accomplishments were the strongest predictors of mathematics self-efficacy.

Self-efficacy has implications for intervention programming (Solberg & Villarreal, 1997). Self-efficacy is especially applicable to the study of female graduate students because the sources of self-efficacy including personal performance accomplishments, vicarious learning, social persuasion, and physiological states and affective reactions can be incorporated within higher education outreach programming efforts, counseling center outreach intervention programs, and graduate student orientations. The following section will provide an overview of the literature on self-efficacy and subjective well-being.

According to social cognitive theory, people's belief in their efficacy, or their capability to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over given events, impacts well-being and psychosocial functioning (Bandura, 1986). It is when people have a sense of low efficacy and believe that they cannot exercise control over perceived demands that they experience distress. A sense of low coping efficacy has been found to contribute to anxiety, perceived vulnerability, negative thinking, and depression (Bandura, 1991; Kanfer & Zeiss, 1983; Major et al., 1990; Ozer & Bandura, 1990). There is a negative correlation between self-efficacy

beliefs and depression (Bandura, 1997). More specifically, individuals with depression often have low self-efficacy beliefs about their ability to function effectively in various life domains. On the other hand, McGregor and Little (1998) found a positive correlation ($r=.37$, $p < .001$) between self-efficacy and happiness. In this study, participants generated goals and then assessed their goals according to 22 dimensions. A factor analysis yielded an “efficacy” factor that was composed of 6 dimensions of goals: difficulty, stress, challenge, time pressure, outcome, and control.

In their study of 164 Mexican American and Latin American undergraduate students, Solberg and Villarreal (1997) examined the relationships among stress, social support, college self-efficacy, and physical and psychological distress. They found that self-efficacy and social support combined to account for 33% of the variance in college adjustment (indexed as lower levels of distress), with self-efficacy providing the largest contribution (27% above that of social support). The complete regression model that included stress, self-efficacy, social support, acculturation, and gender accounted for 46% of the variance in college distress. The results from the study conducted by Solberg and Villarreal (1997) suggest that college self-efficacy beliefs might be an important predictor of persistence in college. In regard to clinical implications of their study, Solberg and Villarreal (1997) suggest that working with Hispanic social support systems and developing intervention programming to facilitate efficacy expectations may lead to higher persistence and subsequent graduation rates for Hispanic college students.

Since the present study examined the work-to-family and family-to-work conflict self-efficacy of female graduate students, it is also useful to consider the research

literature on self-efficacy related to the management of multiple roles and work-family conflict. A few researchers have begun to examine women's self-efficacy expectations for combining a career with home and family roles (Bonett & Stickel, 1992; Dukstein & O'Brien, 1996; Lefcourt & Harmon, 1993, 1995; Stickel & Bonett, 1991). The Self-Efficacy Expectations for Role Management measure (SEERM; Lefcourt & Harmon, 1993, 1995; Lefcourt, 1995) was designed to assess the strength of women's self-efficacy expectations for managing tasks and responsibilities associated with career and family roles. Using a sample of 134 female graduate students, Lefcourt and Harmon (1993) developed the original 150-item SEERM. Their findings suggested that women in female-dominated graduate programs had significantly stronger self-efficacy expectations for the parent, spouse/partner, self, and combined worker and family member roles than women in male-dominated programs. The SEERM was further revised using a sample of professional women who were engaged in multiple roles (Lefcourt, 1995; Lefcourt & Harmon, 1995). Results yielded a 48-item four factor measure that was composed of the four individual role scales of worker, parent, spouse/partner, and self. The individual scales were highly intercorrelated. Construct validity was suggested by the significant negative relationships between the SEERM scales and reported conflict for related roles. Furthermore, the expected significant positive relationship between scores on the SEERM scales and self-esteem scores provided further evidence for validity.

The SEERM measures an individual's confidence in her ability to manage the responsibilities associated with four individual roles. A main limitation of the SEERM is that it does not measure an individual's confidence in her ability to manage

simultaneously the tasks and responsibilities associated with multiple different roles. Thus, the SEERM is not a measure of multiple-role self-efficacy, but rather it is a measure of self-efficacy for managing individual roles. Research is clearly needed that examines multiple-role self-efficacy, that is, an individual's confidence in her ability to manage simultaneously various responsibilities of different roles. Furthermore, research is needed in the area of work-family conflict self-efficacy, that is, the perceived ability to manage work-family role conflict. Cinamon (2003) developed and validated a work-family conflict self-efficacy measure. Paralleling the measurement of work-family conflict, this self-efficacy measure consists of a work-to-family conflict self-efficacy scale and a family-to-work conflict self-efficacy scale. The present study used these two scales, which are reviewed in the Method section.

Social Support and Subjective Well-Being

There has been a great deal of research that has shown that social support is linked to psychological and physical health outcomes, including subjective well-being. Research indicates that relatedness is an important factor that influences subjective well-being (Argyle, 1987). DeNeve (1999) suggested that affiliation is strongly related to subjective well-being.

Social support is a multidimensional construct that may be defined as the comfort, assistance, and/or information one receives through formal or informal social contacts (Wallston, Alagna, DeVellis, & DeVellis, 1983). Past research indicates that persons with high levels of support experience fewer psychological symptoms and appear to be less affected by life stress than persons with lower levels of support (Cohen & Wills, 1985). In early research on social support, distinctions were not made between support

actually given to someone and that person's perception of the potentially available support (Sarason, Sarason, & Peirce, 1990). However, studies more recently have provided evidence that the support perceived to be available is more consistently related to psychological outcome measures than support actually received (Cohen & Wills, 1985; Wethington & Kessler, 1986).

Cohen and Wills (1985) reviewed the social support research literature to determine whether the positive association between social support and well-being is attributable to an overall beneficial effect of support (main- or direct effect model) or to a process of support protecting persons from the potentially adverse effects of stressful events (buffering model). Their review provided evidence to support both models. Evidence that supports a given model seems to depend heavily on the social support measurement strategy used. More specifically, evidence for a buffering model was provided when the social support measure assessed the perceived availability that the interpersonal resources would be responsive to the needs that arise from stressful events. Evidence for a main-effect model was provided when the social support measure assessed an individual's degree of integration in a large social network.

There is empirical evidence that provides support for both the main-effect and buffering models of social support. Each model represents a different process through which social support may affect psychological outcomes such as subjective well-being. Furthermore, in empirical studies, evidence for the direct effects hypothesis is provided by a statistical main effect in the relationship between social support and stress symptoms, whereas the buffering hypothesis is supported by statistical interactions between social support and levels of stress in predicting strain symptoms (House, 1981).

Since the present study examined the role of social support as a moderator of the relationship between work-family conflict and domain specific satisfactions, the following section will provide an overview of the literature on social support and multiple roles and, more specifically, social support and interrole conflict.

Social support and multiple roles. There is a body of research that has examined the role that social support plays in the lives of women who are engaged in multiple roles (Amatea & Fong, 1991; Aryee et al., 1999; Kirk & Dorfman, 1983; Rosenbaum & Cohen, 1999; Suchet & Barling, 1986). In a study of 64 employed South African mothers with a mean age of 36, Suchet and Barling (1986) found that spouse support predicted higher levels of marital satisfaction and verbal and nonverbal communication. In addition, spouse support moderated the negative effects of interrole conflict on marital satisfaction and verbal communication. Likewise, Kirk and Dorfman (1983) surveyed 141 reentry women enrolled as undergraduates in degree programs at a Midwestern university. The age range of the participants was 35-67 years with a median age of 40. They found that support from children and support from friends were positively related to satisfaction in the student role. Furthermore, Amatea and Fong (1991) conducted a study to examine the contribution of personal resources, including social support, in predicting strain symptoms experienced by 117 professional women employed full-time in academia. They found that women who experienced higher levels of social support as well as a greater number of roles occupied, reported lower levels of strain symptoms as compared to women with lower levels of social support.

In a study of 94 married Israeli mothers, ages 23-40, who had full-time outside employment, Rosenbaum and Cohen (1999) found that women who had at least one

resource (resourcefulness or spousal support) were less distressed than women who did not have either of these resources. Resourcefulness was defined and measured as individual tendencies to apply self-control methods to the solution of behavioral problems such as thinking about pleasant events when feeling depressed. Furthermore, Aryee et al. (1999) examined the relationship between role stressors, interrole conflict, and well-being and the moderating influences of spousal support and coping behaviors among a sample of 243 Hong Kong Chinese employed parents in dual-earner families. They found that spousal support moderated the effect of parental overload on family-work conflict, such that the relationship between parental overload and family-work conflict was weaker for participants who reported higher levels of social support than those who reported lower levels of social support.

In sum, the existing body of research on social support and multiple roles in the lives of women provides evidence for both the main-effect and moderating roles of social support. Overall, the majority of research in the area of social support and multiple roles in the lives of women focuses on women who are currently employed in the paid labor force while juggling the roles of parent, partner, and homemaker. There is some research that has examined women who have reentered college and the multiple role issues that they face. However, there is limited research on the multiple role and work-family conflict issues of female graduate students as they juggle the responsibilities of their various roles. Since the present study examined work-family conflict and satisfaction outcomes in female graduate students, the following section will provide an overview of the literature on female graduate students.

The Experiences of Female Graduate Students

Graduate education can be a time of multiple and rapid life changes when stressful life events, and competing familial, personal, and career-related issues may lead to the perception of role overload and stress (Kuh & Thomas, 1983; Morris, 1981; Munson, 1984). In addition, graduate education is associated with high risk for the development of physical and psychological health problems (Heins, Fahey, & Leiden, 1984; Mallinckrodt, Leong, & Kralj, 1989). Although graduate school is often difficult for both men and women, factors such as increased role strain, gender role socialization, and gender-based discrimination may combine to make graduate school especially stressful for women (Mallinckrodt & Leong, 1992).

In their study of law and medical students, Clark and Rieker (1986) found that women reported significantly more stress, sexism, and difficulties with spouses than did male students. In addition, in a campus-wide survey of graduate students, Mallinckrodt et al. (1989) found that women reported significantly higher levels of negative life changes and symptoms of psychological distress and were twice as likely as were men to report problems balancing time commitments. Likewise, Cahir and Morris (1991) conducted a study to examine stress levels of graduate students in psychology. They found that female graduate students reported significantly higher levels of stress than did male students. Furthermore, in their study of graduate psychology students, Hudson and O'Regan (1994) found that female graduate students who were also working full-time and who were not in a committed relationship showed significantly higher levels of stress than all other students. The higher stress level of the latter group of female students might be attributable to added work stresses and lack of support from a

significant other (Hudson & O'Regan, 1994). However, further research is needed in this area. Overall, research has shown that female graduate students, compared to male graduate students, suffer from more stress and psychological distress, in combination with less support from their family and academic departments (Hodgson & Simoni, 1995; Mallinckrodt & Leong, 1992). These results may indicate greater role strain for women, which stems from less support for their multiple roles and greater concerns about balancing academic and family demands.

There is limited research that directly examines the multiple role and work-family conflict issues of female graduate students. However, the research that does exist provides evidence for the significant impact that engaging in multiple roles has on the lives of female graduate students. Due to the limited research in the area of female graduate students and the management of multiple roles, Younes and Asay (1998) conducted a qualitative case study to explore how female graduate students negotiate their multiple roles. Eight female education graduate students who were in the process of negotiating multiple roles completed a questionnaire and participated in a group discussion. The participants provided insight into the following issues: (a) significance of the graduate degree; (b) roles negotiated during the graduate degree program; (c) feelings or thoughts that resulted from the negotiation process; (d) implications that the negotiation process had on their self-perceptions; and (e) recommendations for higher-education institutions in designing programs responsive to the needs of female graduate students.

Cross-case analysis was constructed in search of themes and patterns. The following themes emerged from the data collected through observation, questionnaires, and

interviews: (a) degree objective; (b) attention to financial stability and job security; (c) the aspiration to learn for learning sake; (d) role multiplicity; (e) self-realization and empowerment, and (f) need for support. There was an underlying theme related to the conflict around trying to achieve a balance between their personal and professional lives. Although the women experienced a sense of fulfillment through pursuing a graduate degree, they simultaneously experienced strain associated with negotiating their multiple roles. In addition, the cross-case theme of paradoxes was revealed, as the women reported and discussed their experiences of continuously working towards integrating two equally important but polarized worlds. The polarization stemmed from the commitment and obligation that these women felt towards their families while trying to fulfill their educational needs and career aspirations. Past research has suggested that an ongoing effort is required for successful integration of multiple roles and the imposition that graduate education places on the lives of female graduate students (Edwards, 1993; Hockey, 1994). Because of the small number of participants in this study, generalizability to other populations may be limited. However, the cross-case themes can provide a useful framework for future research on the multiple role issues of female graduate students.

Home (1998) examined the predictors of three strain variables (role conflict, role overload, and role contagion) in a sample of 443 women with jobs and families enrolled in education, social work, or nursing programs. In this study, role conflict was defined as conflict from simultaneous, incompatible demands from different roles. Role overload was defined as insufficient time to meet all demands. Role contagion was defined as preoccupation with one role while performing another role. The sample

consisted primarily (85%) of part-time graduate students. The remaining participants were final year undergraduates who were at least 23 years old, who were also employed, and had family responsibilities. Home (1998) found that students' perceptions of their demands best predicted all three strain variables. More specifically, perceived intensity of demands from student roles was the strongest predictor of role conflict, overload, and contagion. Demands from family and job roles were also significant predictors of role conflict, overload, and contagion.

Using a sample of 134 female graduate students, Lefcourt and Harmon (1993) developed the original 150-item Self-Efficacy Expectations for Role Management (SEERM). The SEERM was designed to assess the strength of women's self-efficacy expectations for managing tasks and responsibilities associated with career and family. Their findings suggested that women in female-dominated graduate programs had significantly stronger self-efficacy expectations for the parent, spouse/partner, self, and combined worker and family member roles than did women in male-dominated programs.

There also exists research that has begun to examine the role of social support in the lives of female graduate students. In their study of 61 female doctoral students (mean age of 31.7 years, range 23 to 50) enrolled at a large Midwestern state university, Munir and Jackson (1997) examined the role of social support. They found that friends as sources of support were cited most frequently. In addition, they found that high anxiety was related to high need for support. Furthermore, Mallinckrodt and Leong (1992) surveyed 166 graduate students living in graduate student housing to assess social support in their academic programs and in their family environments, recent stressful

life events, and depression and anxiety as psychological symptoms of stress. They found that family support had buffering effects, but no direct effects, on stress symptoms for the female graduate students.

In sum, there is a body of research that examines the experiences unique to female graduate students. There is also a limited body of research that examines the multiple roles issues of female graduate students and the role that social support plays in the lives of female graduate students. Thus, further research that directly examines the relationships among work-family conflict, work-family conflict self efficacy, perceived social support and satisfaction outcomes (e.g., both domain-specific and global life satisfaction) in the lives of female graduate students is needed.

Statement of Problem

Much of the research on work-family conflict has examined people working in the paid labor force while simultaneously juggling the roles of paid worker, partner, parent, and homemaker. There is limited research that examines female graduate students and their experiences of work-family conflict. Little is known about the relationship between work-family conflict and global life satisfaction, the relationship between work-family conflict and domain-specific satisfactions, and the mediators and moderators of these relationships in the unique population of female graduate students.

It is important to examine the various factors that contribute to family, work, and global life satisfaction in order to help female graduate students manage their work-family conflict and the negative impact that work-family conflict can have on their family, work, and global life satisfaction. Personality has been found to be a consistent predictor of global life satisfaction. However, personality does not account for all of the

variance in global life satisfaction. Thus, the present study examined other variables, including work-family conflict self-efficacy and perceived social support, that might explain unique variance in life satisfaction above and beyond the variance accounted for by the stable personality traits of extraversion and neuroticism.

The present study also examined mediators of the relationship between work-family conflict and global life satisfaction in female graduate students. More specifically, the present study sought to examine the extent to which domain-specific satisfactions mediate the relationship between work-family conflict and global life satisfaction. In addition, the present study examined moderators of the relationship between work-family conflict and domain-specific satisfactions. Information regarding moderators of these relationships can help professionals to develop and implement interventions to prevent or alleviate the negative impact of work-family conflict on family and work satisfaction and, in turn, on global life satisfaction. Thus, the role of work-family conflict self-efficacy and perceived social support in moderating the relationship of work-family conflict to domain-specific satisfactions was examined.

Hypotheses and Exploratory Research Questions

Hypothesis 1 – Global life satisfaction will be related to each of the following variables in the following ways:

Hypothesis 1a – Neuroticism will be negatively related to global life satisfaction. In their meta-analysis of 197 samples with more than 40,000 adults, DeNeve and Cooper (1998) found that neuroticism was consistently negatively related to subjective well-being. More specifically, they found that neuroticism was the strongest personality predictor of life satisfaction, with an average weighted correlation of $-.24$. Thus, in the

present study, it was hypothesized that participants who report higher levels of neuroticism will report lower levels of life satisfaction.

Hypothesis 1b – Extraversion will be positively related to global life satisfaction. In their meta-analysis, DeNeve and Cooper (1998) also found that extraversion was consistently positively related to subjective well-being and, more specifically, to life satisfaction. Since life satisfaction has been conceptualized as a component of subjective well-being (Diener, 1984), it was hypothesized that participants who report higher levels of extraversion will report higher levels of life satisfaction.

Hypothesis 1c – Work satisfaction will be positively related to global life satisfaction. Prior research has found a consistent positive relationship between work satisfaction and global life satisfaction. For instance, Rice et al. (1992) and Judge et al. (1994) both found a correlation of .49 between job satisfaction and global life satisfaction. Thus, it was hypothesized that participants who report higher levels of work satisfaction will report higher levels of global life satisfaction.

Hypothesis 1d – Family satisfaction will be positively related to global life satisfaction. Prior research has found a consistent positive relationship between family satisfaction and global life satisfaction. For instance, Rice et al. (1992) found a correlation of .54 between family satisfaction and global life satisfaction. Likewise, Kopelman et al. (1983) found a correlation of .46 between family satisfaction and global life satisfaction. Thus, it was hypothesized that participants who report higher levels of family satisfaction will report higher levels of global life satisfaction.

Hypothesis 1e – Work-to-family conflict will be negatively related to global life satisfaction. There is empirical evidence that suggests that work-to-family conflict and

global life satisfaction are negatively related (Bedeian et al., 1988; Kopelman et al., 1983; Netemeyer et al., 1996; Wiley, 1987). Thus, it was hypothesized that participants who report higher levels of work-to-family conflict will report lower levels of global life satisfaction.

Hypothesis 1f – Family-to-work conflict will be negatively related to global life satisfaction. Prior research suggests that there is a negative relationship between family-to-work conflict and global life satisfaction (Adams et al., 1996; Netemeyer et al., 1996; Wiley, 1987). Thus, it was hypothesized that participants who report higher levels of family-to-work conflict will report lower levels of global life satisfaction.

Hypothesis 1g – Work-to-family conflict self efficacy will be positively related to global life satisfaction. Self-efficacy beliefs are individuals' beliefs about their capabilities to successfully perform a given behavior (Bandura, 1977). According to social cognitive theory, people's belief in their efficacy impacts well-being and psychosocial functioning (Bandura, 1986). It is when people have a sense of low efficacy and believe that they cannot exercise control over perceived demands that they experience distress. A sense of low coping efficacy has been found to contribute to anxiety, perceived vulnerability, negative thinking, and depression (Bandura, 1991; Kanfer & Zeiss, 1983; Major et al., 1990; Ozer & Bandura, 1990). There is a negative correlation between self-efficacy beliefs and depression (Bandura, 1997). On the other hand, McGregor and Little (1998) found a positive correlation ($r=.37, p < .001$) between self-efficacy and happiness. Thus, it was hypothesized that participants' who report higher levels of work-to-family conflict self-efficacy will report higher levels of global life satisfaction.

Hypothesis 1h – Family-to-work conflict self-efficacy will be positively related to global life satisfaction. As mentioned above, according to social cognitive theory, people's efficacy beliefs impact well-being and psychosocial functioning (Bandura, 1986). Thus, it was hypothesized that participants' who report higher levels of family-to-work conflict self-efficacy will report higher levels of global life satisfaction.

Hypothesis 1i – Perceived social support will be positively related to global life satisfaction. There has been a great deal of research that has shown that social support is linked to psychological and physical health outcomes, including subjective well-being (Argyle, 1987; DeNeve, 1999). Amatea and Fong (1991) found that professional women who experienced higher levels of social support as well as a greater number of roles occupied, reported lower levels of strain symptoms as compared to those who experienced lower levels of social support. Thus, it was hypothesized that participants who report higher levels of perceived social support will report higher levels of global life satisfaction.

Hypothesis 2 – Family satisfaction will be related to each of the following variables in the following ways:

Hypothesis 2a - Neuroticism will be negatively related to family satisfaction. Research has suggested that family satisfaction is positively correlated with global life satisfaction. Rice et al. (1992) found a positive relationship between family satisfaction and global life satisfaction ($r = .52, p < .05$). In addition, Aryee et al. (1998) found a positive relationship between family satisfaction and global life satisfaction ($r = .38, p < .01$). Kopelman et al. (1983) found a correlation of .46 ($p < .01$) between family satisfaction and global life satisfaction. Since research has found a negative

relationship between neuroticism and global life satisfaction, and since there is a positive correlation between family satisfaction and global life satisfaction, it was hypothesized that participants who report higher levels of neuroticism will report lower levels of family satisfaction.

Hypothesis 2b - Extraversion will be positively related to family satisfaction. Since research has found a positive relationship between extraversion and global life satisfaction, and since there is a positive correlation between family satisfaction and global life satisfaction, it was hypothesized that participants who report higher levels of extraversion will report higher levels of family satisfaction.

Hypothesis 2c – Work-to-family conflict will be negatively related to family satisfaction. There are studies that have found a negative relationship between work-to-family conflict and family satisfaction (Aryee et al., 1999; Beutell & Wittig-Berman, 1999; Kopelman et al, 1983). Thus, it was hypothesized participants who report higher levels of work-to-family conflict will report lower levels of family satisfaction.

Hypothesis 2d – Family-to-work conflict will be negatively related to family satisfaction. A few studies have found a negative relationship between family-to-work conflict and family satisfaction. For instance, Beutell and Wittig-Berman (1999) reported that family-to-work conflict was negatively correlated with family satisfaction ($r = -.21, p < .01$). Thus, it was hypothesized that participants who report higher levels of family-to-work conflict will report lower levels of family satisfaction.

Hypothesis 2e – Work-to-family conflict self efficacy will be positively related to family satisfaction. According to social cognitive theory, people's belief in their efficacy helps to determine their well-being and psychosocial functioning (Bandura,

1986). In addition, research has suggested that family satisfaction is positively correlated with global life satisfaction (Aryee et al., 1988, Kopelman et al., 1983; Rice et al., 1992). Since there is a positive relationship between self-efficacy and well-being, and since there is a positive relationship between family satisfaction and global life satisfaction, it was hypothesized that participants who report higher levels of work-to-family conflict self-efficacy will report higher levels of family satisfaction.

Hypothesis 2f – Family-to-work conflict self-efficacy will be positively related to family satisfaction. Since there is a positive relationship between self-efficacy and well-being, and since there is a positive relationship between family satisfaction and global life satisfaction, it was hypothesized that participants who report higher levels of family-to-work conflict self-efficacy will report higher levels of family satisfaction.

Hypothesis 2g – Perceived social support will be positively related to family satisfaction. Suchet and Barling (1986) found that spouse support predicted higher levels of marital satisfaction and verbal and nonverbal communication. In addition, spouse support moderated the negative effects of interrole conflict on marital satisfaction and verbal communication. In the present study, it was hypothesized that participants who report higher levels of perceived social support will report higher levels of family satisfaction.

Hypothesis 3 – Work satisfaction will be related to each of the following variables in the following ways:

Hypothesis 3a - Neuroticism will be negatively related to work satisfaction. In their meta-analysis linking personality traits to work satisfaction, Judge, Heller, and Mount (2002) found the estimated true score correlations of neuroticism with work satisfaction

were $-.29$. Thus, it was hypothesized that participants who report higher levels of neuroticism will report lower levels of work satisfaction.

Hypothesis 3b - Extraversion will be positively related to work satisfaction. Judge et al. (2002) found the estimated true score correlations of extraversion with work satisfaction were $.25$. Thus, it was hypothesized that participants who report higher levels of extraversion will report higher levels of work satisfaction.

Hypothesis 3c – Work-to-family conflict will be negatively related to work satisfaction. There are studies that have found a negative relationship between work-to-family conflict and work satisfaction (Bedeian et al., 1988; Netemeyer et al., 1996). Thus, it was hypothesized that participants who report higher levels of work-to-family conflict will report lower levels of work satisfaction.

Hypothesis 3d –Family-to-work conflict will be negatively related to work satisfaction. Several studies have found a negative relationship between family-to-work conflict and work satisfaction (Netemeyer et al., 1996). Thus, it was hypothesized that participants who report higher levels of family-to-work conflict will report lower levels of work satisfaction.

Hypothesis 3e – Work-to-family conflict self efficacy will be positively related to work satisfaction. According to social cognitive theory, people's beliefs in their efficacy helps to determine their well-being and psychosocial functioning (Bandura, 1986). In addition, research has suggested that work satisfaction is positively correlated with global life satisfaction (Aryee et al., 1988, Kopelman et al., 1983; Rice et al., 1992). Since there is a positive relationship between self-efficacy and well-being, and since there is a positive relationship between work satisfaction and global life

satisfaction, it was hypothesized that participants who report higher levels of work-to-family conflict self-efficacy will report higher levels of work satisfaction.

Hypothesis 3f – Family-to-work conflict self-efficacy will be positively related to work satisfaction. Since there is a positive relationship between self-efficacy and well-being, and since there is a positive relationship between work satisfaction and global life satisfaction, it was hypothesized that participants who report higher levels of work-to-family conflict self-efficacy will report higher levels of work satisfaction.

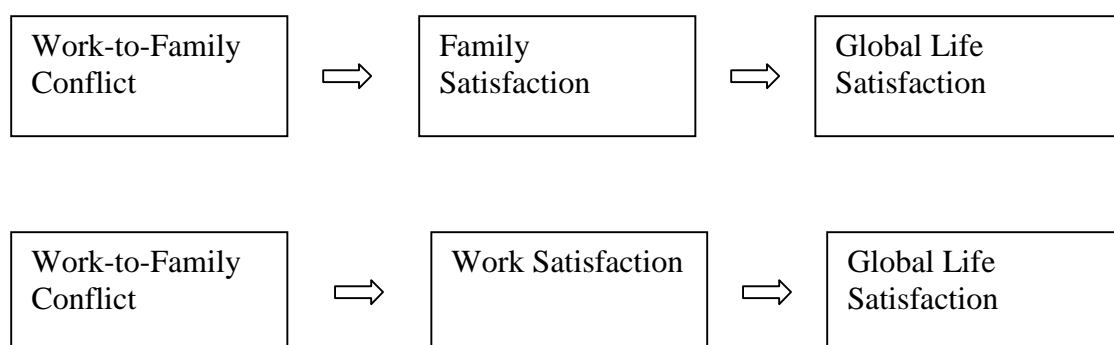
Hypothesis 3g – Perceived social support will be positively related to work satisfaction. Kirk and Dorfman (1983) found that support from children and support from friends were positively related to satisfaction in the student role. According to the additive models of life satisfaction, work satisfaction is a component of life satisfaction (Andrew & Withey, 1976; Rice et al. 1992). As mentioned earlier, a great deal of research has shown that social support is linked to psychological and physical health outcomes, including subjective well-being. Thus, it was predicted that participants who report higher levels of perceived social support will report higher levels of work satisfaction.

Hypothesis 4 – It is predicted that domain-specific satisfactions will mediate the relationships between work-to-family conflict and global life satisfaction. The following specific mediating relationships are predicted (see Figure 1):

Hypothesis 4a – Family satisfaction will mediate the relationship between work-to-family conflict and global life satisfaction, such that the relationship of work-to-family conflict to global life satisfaction will be substantially reduced or eliminated after controlling for family satisfaction.

Hypothesis 4b – Work satisfaction will mediate the relationship between work-to-family conflict and global life satisfaction, such that the relationship of work-to-family conflict to global life satisfaction will be substantially reduced or eliminated after controlling for work satisfaction.

Figure 1. Domain-specific satisfactions mediating the relationships between work-to-family conflict and global life satisfaction



There is research to support the mediating role of domain-specific satisfactions, including family satisfaction and work satisfaction, in the relationship between work-family conflict and global life satisfaction. Rice et al. (1992) found that job and family satisfaction mediated the relationship between work-family conflict and global life satisfaction.

It is important to note that Rice et al. conceptualized and measured work-family conflict as a global, bi-directional, unidimensional construct (“How much does your job and your family life interfere with each other?”). Thus, more research is needed to examine domain-specific satisfactions (family satisfaction and work satisfaction) as mediators of the relationship between work-to-family conflict and global life

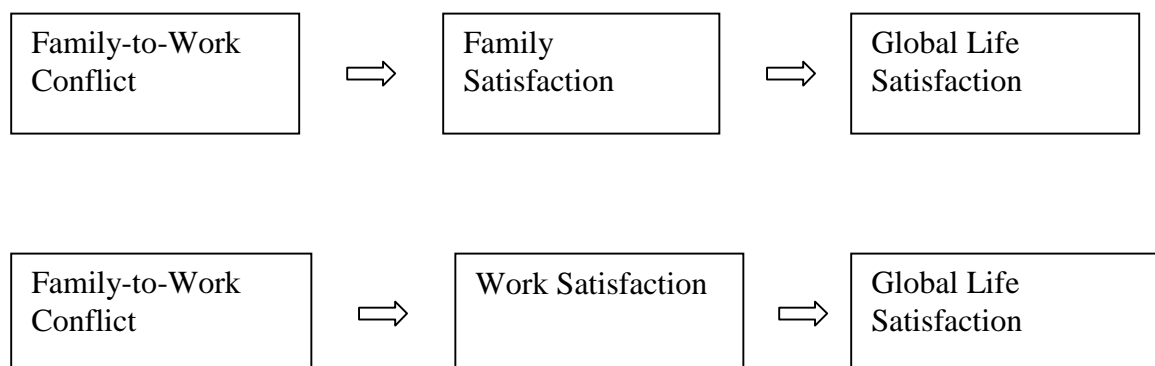
satisfaction. Thus, it was hypothesized that higher levels of work-to-family conflict will be related to lower levels of family and work satisfaction which, in turn, will be related to lower levels of global life satisfaction.

Hypothesis 5 – It is predicted that domains-specific satisfactions will mediate the relationships between family-to-work conflict and global life satisfaction. The following specific mediating relationships are predicted (see Figure 2):

Hypothesis 5a – Family satisfaction will mediate the relationship between family-to-work conflict and global life satisfaction, such that the relationship of family-to-work conflict to global life satisfaction will be substantially reduced or eliminated after controlling for family satisfaction.

Hypothesis 5b – Work satisfaction will mediate the relationship between family-to-work conflict and global life satisfaction, such that the relationship of family-to-work conflict and global life satisfaction will be substantially reduced or eliminated after controlling for work satisfaction.

Figure 2. Domain-specific satisfactions mediating the relationships between family-to-work conflict and global life satisfaction



As described above, there is research to support the mediating role of domain-specific satisfactions, including family satisfaction and work satisfaction, in the relationship between work-family conflict and global life satisfaction (Rice et al., 1992). Thus, it was hypothesized that higher levels of family-to-work conflict will be related to lower levels of family and work satisfaction which, in turn, will be related to lower levels of global life satisfaction.

Hypothesis 6 – The following moderators of work-family conflict / family satisfaction relationships are predicted (see Figure 3):

Hypothesis 6a – Work-to-family conflict self efficacy will moderate the relationship between work-to-family conflict and family satisfaction, such that the relationship between work-to-family conflict and family satisfaction will be weaker for participants who report higher work-to-family conflict self-efficacy than for those who report lower work-to-family conflict self-efficacy.

Hypothesis 6b – Family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and family satisfaction, such that the relationship between family-to-work conflict and family satisfaction will be weaker for participants who report higher family-to-work conflict self-efficacy than for those who report lower family-to-work conflict self-efficacy.

There is limited research in the area of self-efficacy as a moderator. For instance, in a sample of 105 students enrolled in a career planning course for science and engineering majors, Brown, Lent, and Larkin (1989) found that self-efficacy for completing educational requirements in science and engineering fields moderated the relationship between scholastic aptitude and academic performance and persistence. In

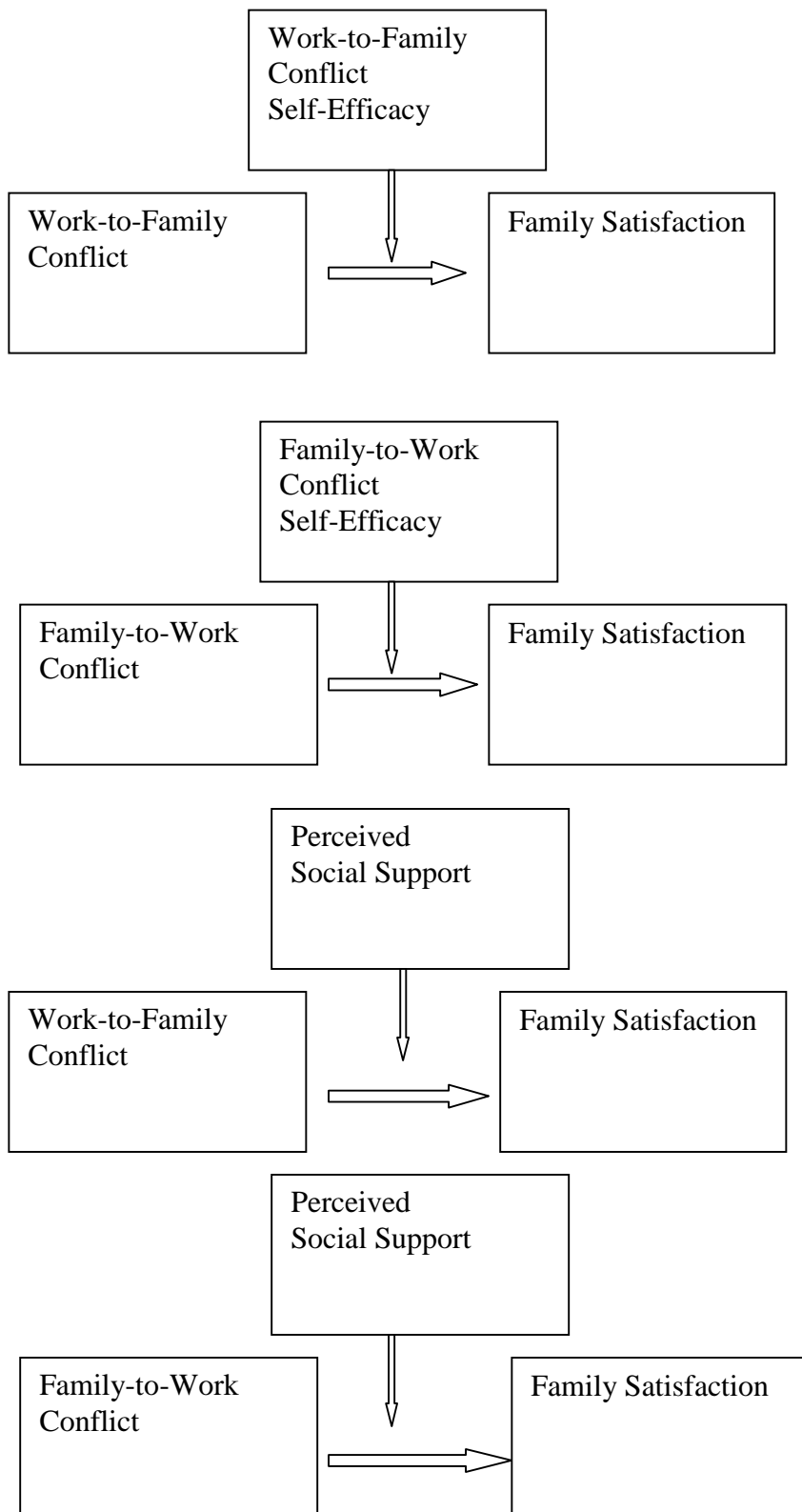
the present study, it was hypothesized that work-to-family conflict self efficacy will moderate the relationship between work-to-family conflict and family satisfaction, and it was hypothesized that family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and family satisfaction

Hypothesis 6c - Perceived social support will moderate the relationship between work-to-family conflict and family satisfaction, such that the relationships between work-to-family conflict and family satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

Hypothesis 6d - Perceived social support will moderate the relationship between family-to-work conflict and family satisfaction, such that the relationship between family-to-work conflict and family satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

There is empirical evidence that social support serves as a moderator of relationships between stressors and strain symptoms. Aryee et al. (1999) found that spousal support moderated the effect of parental overload on family-work conflict. In addition, Suchet and Barling (1986) found that spouse support moderated the negative effects of interrole conflict on marital satisfaction and verbal communication. Thus, it was hypothesized that perceived social support will moderate the relationship between work-to-family conflict and family satisfaction as well as between family-to-work conflict and family satisfaction.

Figure 3. Moderators of work-family conflict / family satisfaction relationships



Hypothesis 7 – The following moderators of work-family conflict / work satisfaction relationships are predicted (see Figure 4):

Hypothesis 7a – Work-to-family conflict self efficacy will moderate the relationship between work-to-family conflict and work satisfaction, such that the relationship between work-to-family conflict and work satisfaction will be weaker for participants who report higher work-to-family conflict self-efficacy than for those who report lower work-to-family conflict self-efficacy.

Hypothesis 7b – Family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and work satisfaction, such that the relationship between family-to-work conflict and work satisfaction will be weaker for participants who report higher family-to-work conflict self-efficacy than for those who report lower family-to-work conflict self-efficacy.

As mentioned earlier, limited research has examined self-efficacy as a moderator. Brown et al. (1989) found that self-efficacy for completing educational requirements in science and engineering fields moderated the relationship between scholastic aptitude and academic performance and persistence. In the present study, it was hypothesized that work-to-family conflict self-efficacy will moderate the relationship between work-to-family conflict and work satisfaction, and it was hypothesized that family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and work satisfaction

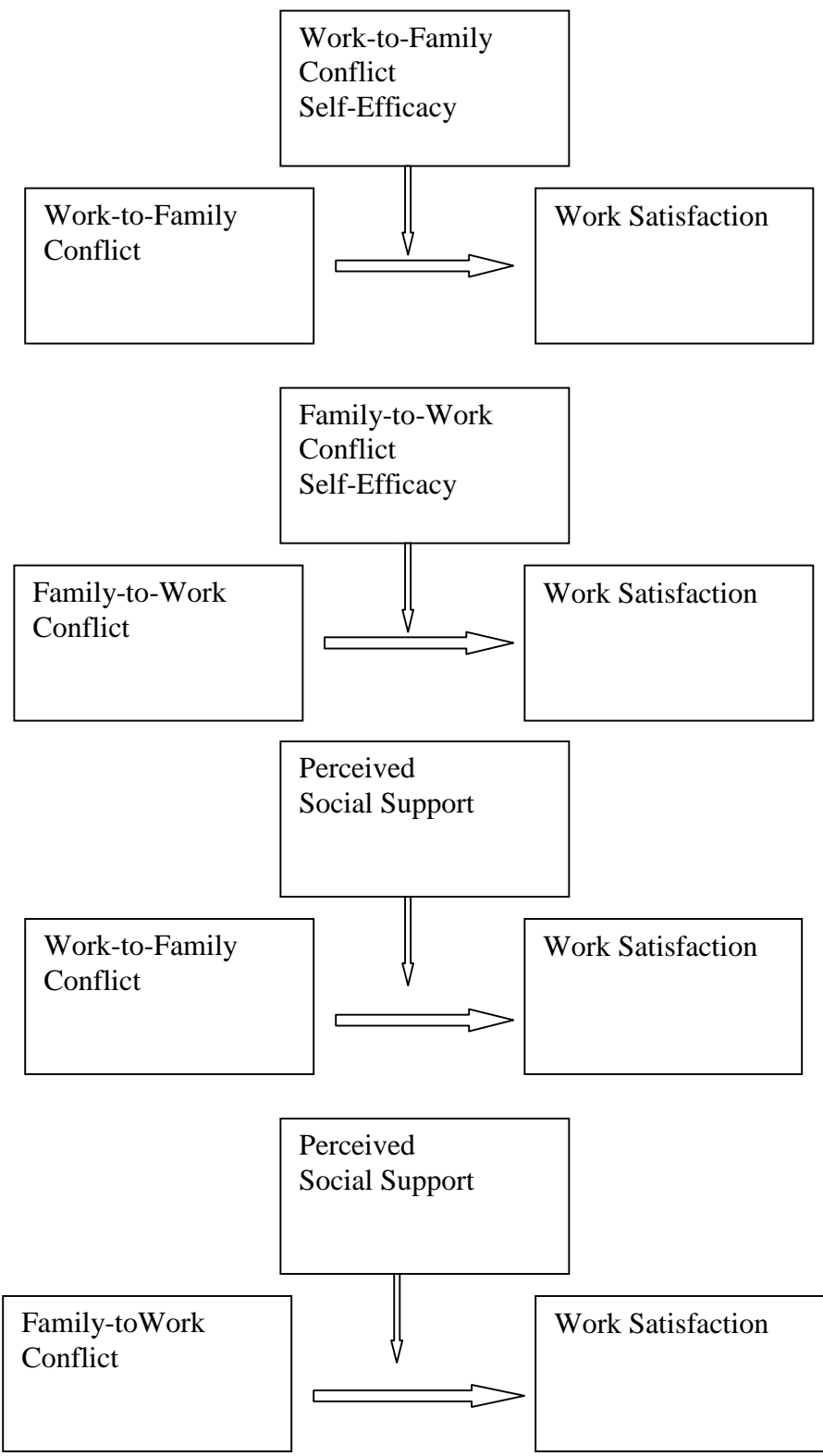
Hypothesis 7c - Perceived social support will moderate the relationship between work-to-family conflict and work satisfaction, such that the relationships between work-to-family conflict and work satisfaction will be weaker for participants who report

higher levels of perceived social support than for those who report lower levels of perceived social support.

Hypothesis 7d - Perceived social support will moderate the relationship between family-to-work conflict and work satisfaction, such that the relationship between family-to-work conflict and work satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

As mentioned earlier, there is empirical evidence that social support serves as a moderator of relationships between stressors and strain symptoms. Aryee et al. (1999) found that spousal support moderated the effect of parental overload on family-work conflict, and Suchet and Barling (1986) found that spouse support moderated the negative effects of interrole conflict on marital satisfaction and verbal communication. Thus, it was hypothesized that perceived social support will moderate the relationship between work-to-family conflict and work satisfaction as well as between family-to-work conflict and work satisfaction.

Figure 4. Moderators of work-family conflict / work satisfaction relationships



Exploratory Question 1 – Do the following variables account for unique variance in global life satisfaction above and beyond the variance accounted for by the personality traits of extraversion and neuroticism: work satisfaction, family satisfaction, work-to-family conflict, family-to-work conflict, work-to-family conflict self efficacy, family-to-work conflict self-efficacy, and perceived social support?

Research has found that extraversion overlaps substantially with positive affect ($r = .71$) and neuroticism is virtually indistinguishable from negative affect once measurement error is controlled (Fujita, 1991 as cited in Diener et al., 1999). An alternative label for neuroticism is negative affectivity (Watson & Clark, 1984) and positive affectivity has been posited to be the core of the broad trait of extraversion (Watson & Clark, 1997). Positive affect and negative affect form part of subjective well-being (Diener, 1984). Positive affect and negative affect also correlate moderately with life satisfaction, the cognitive component of subjective well-being (Lucas, Diener, & Suh, 1996). Research has suggested that personality traits may be one of the most reliable predictors of subjective well-being (Diener, 1984; Diener, 1996; Diener & Larsen, 1993; McCrae & Costa, 1991). Diener and Lucas (1999) suggest that the personality traits that are most consistently related to subjective well-being are extraversion and neuroticism. DeNeve and Cooper (1998) found that extraversion was consistently positively related to subjective well-being, and neuroticism was consistently negatively related to subjective well-being.

Given that the personality traits of extraversion and neuroticism have consistently been shown to account for significant variance in life satisfaction, the present study examined the contribution of the other variables to the prediction of life satisfaction

after controlling for the effects of extraversion and neuroticism. Since it was unclear which variables account for unique variance in global life satisfaction, this part of the study was exploratory in nature.

Exploratory Question 2 – Do the following variables account for unique variance in (a) family satisfaction and (b) work satisfaction, above and beyond the variance accounted for by the personality traits of extraversion and neuroticism? These variables include work-to-family conflict, family-to-work conflict, work-to-family conflict self efficacy, family-to-work conflict self-efficacy, and perceived social support.

Given that the personality traits of extraversion and neuroticism have consistently been shown to account for significant variance in life satisfaction, and family satisfaction and work satisfaction are positively related to life satisfaction, the present study examined the incremental contribution of other variables (work-to-family conflict, family-to-work conflict, work-to-family conflict self efficacy, family-to-work conflict self-efficacy, and perceived social support) to the prediction of (a) family satisfaction and (b) work satisfaction, after controlling for the effects of extraversion and neuroticism. Since it was unclear which variables account for unique variance in family and work satisfaction, this part of the study was exploratory in nature.

Chapter 3

Method

Participants

The sample was composed of 187 female graduate students. Participants ranged in age from 30 to 59 years, with a mean age of 38.75 years ($SD = 7.89$). One hundred and thirty-three (71.1%) self-identified as Caucasian, 23 (12.3%) as Asian American or Asian, 16 (8.6%) as African American or of African descent, 11 (5.9%) as Latina or of Hispanic descent, and 4 (2.1%) as other. Forty-eight (25.7%) participants were earning their Master's degree, and 139 (74.3%) participants were earning their doctoral degrees. Fifty-four (28.9%) participants were part-time students, 132 (70.6%) participants were full-time students, and 1 (.5%) participant did not report her status in the program. The mean number of credits enrolled for the current semester was 6.07 ($SD = 4.37$). The participants were enrolled in the following program areas: 56 (29.9%) education, 40 (21.4%) art and humanities, 24 (12.9%) physical and life sciences, 12 (6.4%) business, 11 (5.9%) behavioral and social sciences, 9 (4.8%) family studies, 9 (4.8%) library science, 6 (3.2%) government and politics, 4 (2.1%) engineering, 4 (2.1%) architecture and historic preservation, 3 (1.6%) health and human performance, 3 (1.6%) math and scientific computing, 2 (1.1%) economics, 2 (1.1%) public affairs, and 1 (.5%) journalism. One (.5%) participant did not report her graduate program.

One (.5%) participant indicated that her immediate family's total, combined annual income was under \$10,000, 3 (1.6%) reporting income ranging from \$10,001-\$15,000. Six (3.2%) of the participants reported a total, combined family income ranging from \$15,001-\$25,000, 17 (9.1%) reported a range from \$25,001-\$40,000, 27 (14.4%)

reported a range from \$40,001-\$60,000, 34 (18.2%) reported a range from \$60,001-\$80,000, 30 (16%) reported a range from \$80,001-\$100,000, and 64 (34.2%) reported a combined family income over \$100,000. Five (2.7%) did not report their family's total, combined annual income.

The majority of the women indicated that they were married (93%, $n = 174$). Two (1.1%) participants indicated that they were single, 4 (2.1%) indicated that they were separated, and 7 (3.7%) women reported that they were divorced. One hundred and twenty-five (66.8%) participants reported having children, and 62 (33.2%) reported having no children. Among the participants who reported having children, 58 reported having 1 child, with 41 reporting 2 children, 16 reporting 3 children, and 10 reporting 4 children. Among the 125 participants who reported having children, 14 participants had no children living at home, 62 had one child living at home, 36 had 2 children living at home, 11 had 3 children living at home, and 2 had 4 children living at home. The mean marital satisfaction score was 6.06 ($SD = 1.43$) on a scale from 1 (very dissatisfied) to 7 (very satisfied). The mean parent satisfaction score was 6.38 ($SD = .86$) on a scale from 1 (very dissatisfied) to 7 (very satisfied).

Measures

Data were gathered through a packet of questionnaires including: a demographic questionnaire designed for this study; a work-to-family conflict scale and a family-to-work conflict scale (Netemeyer et al., 1996); a work-family conflict self efficacy scale (Cinamon, 2003); the Social Provisions Scales (SPS; Cutrona & Russell, 1987); the extraversion (E) scale of the Eysenck Personality Questionnaire-Revised (EPQ-R; Eysenck, Eysenck, & Barrett, 1985); the neuroticism (N) scale of the Eysenck

Personality Questionnaire-Revised (EPQ-R; Eysenck et al., 1985); a work satisfaction measure (Hackman & Oldham, 1975); a family satisfaction measure (Brayfield & Rothe, 1951); and the Satisfaction with Life Scale (SWLS; Diener et al., 1985).

Demographic Questionnaire. A demographic questionnaire developed for this study was used (see Appendix A). Participants were asked to provide information regarding age, race/ethnicity, graduate program type and degree, whether they are a full-time or part-time graduate student, number of credits enrolled for during current semester, marital status, whether they have any children, their socioeconomic status, and their satisfaction with their marriage and with being a parent.

Work-Family Conflict. Work-to-family conflict and family-to-work conflict were assessed by two scales developed by Netemeyer et al. (1996) (see Appendix B and C). Due to a lack of sound measures of work-to-family conflict and family-to-work conflict, Netemeyer et al. (1996) developed and validated scales of work-to-family conflict (WFC) and family-to-work conflict (FWC). They defined WFC 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.” They defined FWC 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.”

Netemeyer et al. (1996) generated a large pool of items that were used in various published sources including Bedeian et al. (1988), Kopelman et al. (1983), and Wiley (1987). From the initial pool of 110 items, items were generated to assess general demand WFC and FWC, time-based WFC and FWC, and strain-based WFC and FWC. Four faculty members with research interests in organizational behavior rated each item

as very representative, somewhat representative, or not representative of the construct definitions. The interrater reliability was only .52 when all four judges at a time were considered, and increased to .63 to .79 when only two judges at a time were considered. Netemeyer et al. used the items that all four judges rated as the same and rated either as somewhat representative or very representative of the construct definitions. The pool of items was further reduced to a total of 43 items.

Netemeyer et al. (1996) used three samples in order to develop and validate their scales. Sample 1 consisted of 182 elementary and high school teachers and administrators, Sample 2 consisted of 162 small business owners, and Sample 3 consisted of 186 real estate salespeople. Netemeyer et al. (1996) examined the factor structure of the 43 conflict items. A two-factor confirmatory model was derived, and the two factors consisted of the 22-item WFC factor and the 21-item FWC factor. Items from the original two factors were deleted based on a number of criteria including those that had completely standardized factor loadings $<.50$ and those that were highly redundant in regard to wording with other items. The final forms of the WFC and FWC scales were five items each. Reliability coefficients ranged from .82 to .90 for the WFC and FWC scales among the three samples.

In order to test the construct validity of the WFC and FWC scales, Netemeyer et al. (1996) made predictions in regard to the relationships between WFC and FWC and 16 various on-job and off-job constructs. For instance, the negative correlations between WFC and life satisfaction and FWC and life satisfaction provided evidence for the construct validity of the WFC and FWC scales. Furthermore, findings suggested that

WFC and FWC were distinct constructs through evidence of discriminant validity. The intercorrelation between WFC and FWC was .33 in a sample of small business owners.

The work-to-family conflict scale and the family-to-work conflict scale each consist of 5 items. Using a 7-point Likert scale, participants are asked to indicate to what extent they agree with each conflict item. Responses range from 1 (strongly disagree) to 7 (strongly agree). A sample item from the work-to-family conflict scale is: “The demands of my work interfere with my home and family life.” A sample item from the family-to-work conflict scale is: “The demands of my family or spouse/partner interfere with work-related activities.” Since participants in the present study were female graduate students, the instructions clearly stated that words “work” and “job” refer to all work-related activities that they do as part of their graduate school work as well as to paid work both on and off campus. Furthermore, in the instructions, when asked about family, participants were instructed to define family as the following domains of family life that pertain to them: being a parent, being a spouse/partner, overall homelife.

In the present study, the internal reliability coefficient for the work-to-family conflict scale was .94, and .88 for the family-to-work conflict scale. The intercorrelation between the work-to-family conflict scale and the family-to-work conflict scale was .41 ($p < .01$).

Work-family conflict self-efficacy. Work-to-family conflict self-efficacy and family-to-work conflict self-efficacy were assessed by two scales developed by Cinamon (2003) (see Appendix D). The questionnaire measures perceptions of self-efficacy beliefs regarding ability to manage the two directions of work-family conflict.

Using a sample of 362 university students (age range 18-31), Cinamon (2003) found a reliability coefficient of .83 for the work-to-family conflict self efficacy scale and a reliability coefficient of .84 for the family-to-work conflict self-efficacy scale. The work-to-family conflict self-efficacy scale was negatively correlated with work-to-family conflict expectations ($r = -.30$; $p < .01$) and the family-to-work conflict self-efficacy scale was negatively correlated with family-to-work conflict expectations ($r = -.20$; $p < .01$) in a sample of 240 adolescents (Cinamon, 2003).

The work-to-family conflict self-efficacy scale and the family-to-work conflict self-efficacy scale each consist of 5 items. Participants are asked to indicate how much confidence they have that they could perform the behavior described in each item. Responses may range from 0 (no confidence) to 9 (complete confidence). High scores indicate high levels of work-family conflict self efficacy, and low scores indicate low levels of work-family conflict self-efficacy expectations. A sample item from the work-to-family conflict self-efficacy scale is: "Fulfill your job responsibility without letting it interfere with your family responsibilities." A sample item from the family-to-work conflict self-efficacy scale is: "Manage incidents in which family life interferes with work life." Since participants in the present study were female graduate students, the instructions clearly stated that words "work" and "job" refer to all work-related activities that they do as part of their graduate school work as well as to paid work on and off campus. Furthermore, in the instructions, when asked about family, participants were instructed to define family as the following domains of family life that pertain to them: being a parent, being a spouse/partner, overall homelife. In the present study, the coefficient alphas for the work-to-family conflict self efficacy scale and the family-to-

work conflict self-efficacy scale were .90 and .91, respectively. The intercorrelation between work-to-family conflict self-efficacy and family-to-work conflict self-efficacy was .88 ($p < .01$). Supplemental factor analyses to determine the factor structure of the work-family conflict self-efficacy scales were conducted and will be described in the Results section.

Social Provisions Scale. The Social Provisions Scale (SPS; Cutrona & Russell, 1987) was used to assess participants' perceived social support (See Appendix E). The SPS is based on six social provisions or functions hypothesized by Weiss (1974) as being important in relationships, with four items measuring each provision. The six social provisions are (a) guidance, provided by relationships with people who can provide advice or information; (b) reliable alliance, provided by relationships in which the person can count on others' assistance; (c) reassurance of worth, provided by relationships where the individual's skills and competence are recognized and valued; (d) attachment, provided by relationships leading to feelings of safety and security; (e) social integration, provided by a network of relationships in which people share similar interests and concerns; and (f) opportunity for nurturance, provided by relationships in which one person feels responsible for the well being of another.

Evidence for construct validity was provided by a confirmatory factor analysis which yielded a six-factor structure corresponding with each of Weiss's six social provisions (Cutrona & Russell, 1987). Further evidence for the validity of the SPS has been found from studies on postpartum women, hospital nurses, public school teachers, and the elderly (Aquino, Russell, Cutrona, & Altmaier, 1996; Cutrona & Russell, 1987). Aquino et al. (1996) found that social support as measured by the SPS was positively

correlated with life satisfaction ($r = .57$; $p < .05$). Reliability was established using an elderly sample and a teacher sample. Coefficient alphas for the total scale were .92 and .89 for the elderly and teacher samples, respectively.

The SPS consists of 24 items. Using a 4-point Likert scale, participants are asked to indicate to what extent they agree with each social provision item. Responses range from 1 (strongly disagree) to 4 (strongly agree). Some sample items include: “There are other people I can depend on to help me if I really need it;” and “There is someone I could talk to about important decisions in my life.” The total score scale was utilized. In the present study, the internal reliability coefficient for the SPS was .91.

Extraversion subscale of the Eysenck Personality Questionnaire-Revised. The extraversion (E) scale of the Eysenck Personality Questionnaire-Revised (EPQ-R; Eysenck et al., 1985) was used to assess participants’ extraversion (see Appendix F). The E scale of the EPQ-R has high convergent validity with the extraversion scale of the NEO Personality Inventory–Revised (Costa & McCrae, 1995). Reliability has been well-established in the literature (Costa & McCrae, 1995; Eysenck et al., 1985). Coefficient alphas for the E scale were .88 and .84 for male and female samples, respectively (Eysenck et al., 1985). In addition, coefficient alpha for the E scale was .87 for a sample of adults (Costa & McCrae, 1995).

The E scale consists of 12 items. Participants are asked to respond either “Yes” or “No” to the items. Sample items include: “Do you enjoy meeting new people?” and “Are you rather lively?” Participants’ responses were scored by assigning each “Yes” response a value of one, and each “No” response a value of zero. Two items (item numbers 7, 10) were reversed scored. The raw score yielded a range of 0-12, and the

raw total was divided by the number of items in the scale (12), which resulted in a range of scores from 0-1. In the present study, the coefficient alpha for the E scale was .87.

Neuroticism subscale of the Eysenck Personality Questionnaire-Revised. The neuroticism (N) scale of the Eysenck Personality Questionnaire Revised (EPQ-R; Eysenck et al., 1985) was used to assess participants' neuroticism (see Appendix G). The N scale of the EPQ-R has high convergent validity with the neuroticism scale of NEO Personality Inventory–Revised (Costa & McCrae, 1995). Reliability has been well-established in the literature (Costa & McCrae, 1995; Eysenck et al, 1985). Coefficient alphas for the N scale were .84 and .80 for male and female samples, respectively (Eysenck et al., 1985). In addition, coefficient alpha for the N scale was .89 for a sample of adults (Costa & McCrae, 1995).

The N scale consists of 12 items. Participants are asked to respond either “Yes” or “No” to the items. Some example items include: “Would you call yourself a nervous person?” and “Are you a worrier?” Participants' responses were scored by assigning each “Yes” response a value of one, and each “No” response” a value of zero. The raw score yielded a range of 0-12, and the raw total was divided by the number of items in the scale (12), which resulted in a range of scores from 0-1. In the present study, the coefficient alpha for the N scale was .77.

Work Satisfaction. Work satisfaction was assessed using the 3-item General Job Satisfaction scale that is part of the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975) (see Appendix H). The General Satisfaction scale of the JDS is an overall measure of the degree to which the employee is satisfied and happy with the job (Hackman & Oldham, 1975). Wiley (1987) found a reliability coefficient of .86 for the

three-item General Job Satisfaction scale of the Job Diagnostic Survey (Hackman & Oldham, 1975). Furthermore, Wiley (1987) found positive correlations between the three-item work satisfaction measure and global life satisfaction ($r = .41, p < .05$) and between the three-item work satisfaction measure and job involvement ($r = .54, p < .05$).

Using a 7-point Likert scale, participants are asked to indicate their level of agreement with the work satisfaction items. Responses range from 1 (strongly disagree) to 7 (strongly agree). One item was reverse scored (item 2). An example is: “Generally speaking, I am very happy with my work.” Since participants in the present study were female graduate students, the instructions clearly stated that the word “work” referred to all work-related activities that they do as part of their graduate school work as well as to paid work on and off campus. In the present study, the reliability coefficient for the work satisfaction measure was .79.

Family satisfaction. Family satisfaction was assessed using the abbreviated 5-item version of Brayfield and Rothe’s (1951) job satisfaction scale by substituting the word “family life” for the word “job” (Aryee et al., 1999) (see Appendix I). This type of scale modification to measure family satisfaction is well established in the area of work-family research (Aryee et al., 1999; Kopelman et al., 1983). Aryee et al. (1999) found a reliability coefficient of .84 for the modified Brayfield and Rothe family satisfaction measure. Furthermore, Aryee et al. (1999) found positive correlations between the modified Brayfield and Rothe family satisfaction measure and life satisfaction ($r = .38, p < .01$) and between this family satisfaction measure and spousal support ($r = .33, p < .01$).

Using a 5-point Likert scale, participants are asked to indicate their level of agreement with the family satisfaction items. Responses range from 1 (strongly disagree) to 5 (strongly agree). One item was reverse scored (item 5). A sample item is “I feel fairly well satisfied with my family.” Furthermore, in the instructions, when asked about family life, participants were instructed to define family life as the following domains of family life that pertain to them: being a parent, being a spouse/partner, overall homelife. In the present study, the reliability coefficient for the family satisfaction measure was .84.

Satisfaction with Life Scale. The Satisfaction with Life Scale (SWLS; Diener et al., 1985) was used to assess global life satisfaction (see Appendix J). Diener et al. (1985) found a test-retest reliability coefficient of .82 after two months when used with a sample of undergraduate students. An internal consistency reliability coefficient of .83 with a sample of dual-career couples was computed (Aryee, Luk, Leung, and Lo, 1999). Scores on the SWLS are moderately to highly correlated with other measures of subjective well being, and correlate predictably with certain personality characteristics, including self-esteem, neuroticism, emotionality, sociability, and impulsivity (Diener et al., 1985; Pavot, Diener, Colvin, & Sandvik, 1991).

The SWLS consists of 5 items. Using a 7-point Likert scale, participants are asked to indicate their level of agreement with the satisfaction with life items. Responses range from 1 (strongly disagree) to 7 (strongly agree). Sample items include: “In most ways, my life is close to my ideal;” and “I am satisfied with my life.” In the present study, the coefficient alpha for the SWLS was .86.

Procedure

Participants in the proposed study were a random sample of female graduate students who were at least 30 years of age and who were married and/or who had one or more children living at home. The names, phone numbers, email addresses, and addresses of 800 female graduate students enrolled at the University of Maryland at College Park during the Fall 2003 semester were obtained through the Registrar's office, following approval from the Human Subjects Review Committee. Contact information for female graduate students at least 30 years of age was obtained in order to increase the likelihood that the potential sample would contain participants who were married and/or who were parents of at least one child living at home. Since the present study was interested in examining female graduate students who have the greatest potential to experience work-family conflict, only those who were married and/or have children living at home were used. This is consistent with past research in the area of work-family conflict (Carlson & Kacmar, 2000; Duxbury & Higgins, 1991; Frone, Russell, & Cooper, 1992).

Data were collected through a packet of questionnaires sent to a sample of female graduate students. In order to increase the response rate, the mail survey procedure included repeated contact with potential participants (Salant & Dillman, 1994). Before questionnaires were mailed, personalized advance-notice emails (see Appendix K and L) were sent to all potential participants to introduce the study, to inform them that they would be receiving a survey packet in the mail the following week, and to briefly state why the survey was being done. One week after the emailing of the initial advance-notice letters, a random sample of 600 of the original 800 female graduate students was

mailed a packet containing a cover letter (see Appendix M), the questionnaires, and a self-addressed, stamped envelope. Participants were asked to complete and return the survey packet in the enclosed self-addressed, stamped envelope. Since a repeated mail survey procedure as described should yield a 50 to 60 percent response rate for the general public, and higher response for more specialized populations (Salant & Dillman, 1994), 600 female graduate students were mailed a survey packet rather than the original list of 800 female graduate students. Participants who had not responded to the survey packet within one week were sent a follow-up email reminding them to complete and return the survey packet (see Appendix N). Two weeks after the follow-up emails had been sent, another survey packet with a new personalized cover letter was sent to those potential participants who had not responded (see Appendix O). Of the 600 questionnaire packets that were mailed, 276 questionnaire packets were returned. Of those returned, 89 were not usable since the respondents did not meet the criteria for inclusion in the study or they returned the packet marked “not applicable” as requested in the cover letter. One hundred and eighty-seven questionnaire packets were deemed usable for the purposes of the present study.

All questionnaires were assigned an identification code number. The number was matched with a participant’s name for the purposes of assessing response rates and identifying those who would receive an email reminder and/or a second survey packet. The participants’ names were not placed on the questionnaire itself. The list of names matched with identifying numbers was kept in a locked file cabinet, separate from the returned questionnaires. Likewise, all returned questionnaires were kept in a locked

office. Data were entered on a computer with password protection to further ensure the security of the data. Data were analyzed and reported in aggregate form.

As an incentive to participate in the study, potential participants were notified of a lottery drawing of three cash prizes of \$20 each. Participants were asked to indicate on a separate form whether or not they were interested in participating in the lottery drawing (see Appendix P). These lottery drawing forms were removed from the completed questionnaires and kept separately by the researcher. Furthermore, participants were asked to indicate whether or not they were interested in receiving the results of the study. On this same form, participants were asked to provide contact information if they were interested in participating in the lottery drawing and/or in receiving the results of the study. Upon completion of the study, the lottery drawing was held, and three students were mailed their \$20 cash prizes. In addition, those students who indicated an interest in receiving the results of the study will be mailed a summary of the results, when these are finalized.

Chapter 4

Results

Preliminary steps to hypothesis testing were conducted which included a series of factor analyses to confirm the factor structure of the domain-specific satisfaction variables, the work-family conflict variables, and the work-family conflict self-efficacy variables. A principal-axis factor analysis with direct oblimin oblique rotation was conducted with all of the domain-specific satisfaction items (work and family satisfaction items). Use of principal-axis factor analyses with direct oblimin oblique rotation has been recommended when factors are likely to be correlated (Gorsuch, 1997). Principal-axis factor analysis revealed that the domain-specific satisfaction items loaded on two separate factors, with 67% of the total variance explained by a 2-factor solution. Two factors had eigenvalues above one, and examination of the scree plot data showed scree at two factors. Thus, factor analysis provided support for treating family satisfaction and work satisfaction as two distinct and separate factors. A principal-axis factor analysis with direct oblimin oblique rotation was also conducted with all the work-to-family conflict and family-to-work conflict items. Principal-axis factor analysis revealed that work-to-family conflict and family-to-work conflict loaded on two separate factors, with 74% of the total variance explained by a 2-factor solution. Two factors had eigenvalues above one, and examination of the scree plot data showed scree at two factors. Thus, factor analysis provided support for treating work-to-family conflict and family-to-work conflict as two distinct and separate factors.

A principal-axis factor analysis with direct oblimin oblique rotation was conducted with the work-to-family conflict self-efficacy and family-to-work conflict self-efficacy

items. Principal-axis factor analysis revealed that the work-to-family conflict self efficacy and family-to-work conflict self-efficacy items loaded on one factor, with 68% of the total variance explained by a 1-factor solution (see Table 1). One factor had an eigenvalue above one, and examination of the scree plot data showed scree at one factor. Thus, factor analysis did not support the notion that work-to-family conflict self-efficacy and family-to-work conflict self-efficacy are two distinct and separate factors. The original hypotheses were based on the assumption that the work-to-family conflict self-efficacy and the family-to-work conflict self-efficacy were 2 factors. However, since a factor analysis revealed that all self-efficacy items loaded on a single factor, these items were combined on one factor which will be referred to as work/family conflict self-efficacy. In the present study, the reliability coefficient for the combined work/family conflict self-efficacy scale was .95. It is important to note that work/family conflict self-efficacy does not imply direction like the terms work-to-family and family-to-work. The hypotheses tests will use the one factor work/family conflict self-efficacy in place of work-to-family conflict self-efficacy and family-to-work conflict self-efficacy.

Table 1
Work/Family Conflict Self-Efficacy Items and Factor Loadings

Item	<u>Factor</u> 1
1. Fulfill your job responsibility without letting it interfere with your family responsibilities.	.80
2. Attend to your family obligations without it affecting your ability to complete pressing tasks at work.	.81
3. Manage incidents in which work life interferes with family life.	.83
4. Fulfill all your family responsibilities despite going through a trying and demanding period in your work.	.82
5. Manage incidents in which family life interferes with work life.	.85
6. Fulfill your family role effectively after a long and demanding day at work.	.77
7. Invest in your job even when under heavy pressure due to family responsibilities.	.82
8. Succeed in your role at work although there are many difficulties in your family	.78
9. Invest in your family role even when under heavy pressure due to work responsibilities.	.80
10. Focus and invest in work tasks even though family issues are disruptive.	.75

Note. N = 187. Kaiser-Meyer-Olkin index = .92.

Table 2 presents the correlations, means, standard deviations, and reliability coefficients of the predictors and dependent variables. The correlations in Table 2 were used to test Hypotheses 1-3.

Hypothesis 1 – Global life satisfaction will be related to each of the following variables in the following ways:

Hypothesis 1a – Neuroticism will be negatively related to global life satisfaction. As hypothesized, participants' scores on the neuroticism scale of the EPQ-R were correlated negatively with their scores on the Satisfaction with Life Scale (SWLS). The correlation was statistically significant ($r = -.44, p < .01$).

Hypothesis 1b – Extraversion will be positively related to global life satisfaction. The correlation between participants' scores on the extraversion scale of the EPQ-R and their scores on the SWLS was positive, yet small and not statistically significant ($r = .11$).

Hypothesis 1c – Work satisfaction will be positively related to global life satisfaction. As hypothesized, participants' scores on the work satisfaction measure were correlated positively with their scores on the SWLS. The correlation was statistically significant ($r = .48, p < .01$).

Hypothesis 1d – Family satisfaction will be positively related to global life satisfaction. As hypothesized, participants' scores on the family satisfaction measure were correlated positively with their scores on the SWLS. The correlation was statistically significant ($r = .68, p < .01$).

Hypothesis 1e – Work-to-family conflict will be negatively related to global life satisfaction. As hypothesized, participants' scores on the work-to-family conflict scale

were correlated negatively with their scores on the SWLS. The correlation was statistically significant ($r = -.33, p > .01$).

Hypothesis 1f – Family-to-work conflict will be negatively related to global life satisfaction. As hypothesized, participants' scores on the family-to-work conflict scale were correlated negatively with their scores on the SWLS. The correlation was statistically significant ($r = -.45, p < .01$).

Hypothesis 1g – Work-to-family conflict self efficacy will be positively related to global life satisfaction.

Hypothesis 1h – Family-to-work conflict self-efficacy will be positively related to global life satisfaction.

As expected, participants' scores on the combined work/family conflict self-efficacy scale were correlated positively with their scores on the SWLS. The correlation was statistically significant ($r = .49, p < .01$).

Hypothesis 1i – Perceived social support will be positively related to global life satisfaction. As hypothesized, participants' scores on the Social Provisions Scale were positively correlated with their scores on the SWLS. The correlation was statistically significant ($r = .52, p < .01$).

Hypothesis 2 – Family satisfaction will be related to each of the following variables in the following ways:

Hypothesis 2a - Neuroticism is negatively related to family satisfaction. As hypothesized, participants' scores on the neuroticism scale of the EPQ-R were correlated negatively with their scores on the family satisfaction measure. The correlation was statistically significant ($r = -.31, p < .01$).

Hypothesis 2b - Extraversion is positively related to family satisfaction. The correlation between participants' scores on the extraversion scale of the EPQ-R and their scores on the family satisfaction measure was positive, yet small and not statistically significant ($r = .06$).

Hypothesis 2c – Work-to-family conflict will be negatively related to family satisfaction. As hypothesized, participants' scores on the work-to-family conflict scale correlated negatively with their scores on the family satisfaction measure. The correlation was statistically significant ($r = -.26, p < .01$).

Hypothesis 2d – Family-to-work conflict will be negatively related to family satisfaction. As hypothesized, participants' scores on the family-to-work conflict scale correlated negatively with their scores on the family satisfaction measure. The correlation was statistically significant ($r = -.46, p < .01$).

Hypothesis 2e – Work-to-family conflict self efficacy will be positively related to family satisfaction.

Hypothesis 2f – Family-to-work conflict self-efficacy will be positively related to family satisfaction.

As expected, participants' scores on the combined work/family conflict self-efficacy scale correlated positively with their scores on the family satisfaction measure. The correlation was statistically significant ($r = .41, p < .01$).

Hypothesis 2g – Perceived social support will be positively related to family satisfaction. As hypothesized, participants' scores on the Social Provisions Scale correlated positively with their scores on the family satisfaction measure. The correlation was statistically significant ($r = .45, p < .01$).

Hypothesis 3 – Work satisfaction will be related to each of the following variables in the following ways:

Hypothesis 3a - Neuroticism will be negatively related to work satisfaction. As hypothesized, participants' scores on the neuroticism scale of the EPQ-R correlated negatively with their scores on the work satisfaction measure. The correlation was statistically significant ($r = -.35, p < .01$).

Hypothesis 3b - Extraversion will be positively related to work satisfaction. The correlation between participants' scores on the extraversion scale of the EPQ-R and their scores on the work satisfaction measure was positive, yet small and not statistically significant ($r = .12$).

Hypothesis 3c – Work-to-family conflict will be negatively related to work satisfaction. As hypothesized, participants' scores on the work-to-family conflict scale correlated negatively with their scores on the work satisfaction measure. The correlation was statistically significant ($r = -.26, p < .01$).

Hypothesis 3d –Family-to-work conflict will be negatively related to work satisfaction. As hypothesized, participants' scores on the family-to-work conflict scale correlated negatively with their scores on the work satisfaction measure. The correlation was statistically significant ($r = -.28, p < .01$).

Hypothesis 3e – Work-to-family conflict self efficacy will be positively related to work satisfaction.

Hypothesis 3f – Family-to-work conflict self-efficacy will be positively related to work satisfaction.

As expected, participants' scores on the combined work/family conflict self-efficacy scale correlated positively with their scores on the work satisfaction measure. The correlation was statistically significant ($r = .40, p < .01$).

Hypothesis 3g – Perceived social support will be positively related to work satisfaction. As hypothesized, participants' scores on the Social Provisions Scale correlated positively with their scores on the work satisfaction measure. The correlation was statistically significant ($r = .31, p < .01$).

Table 2
Correlations, Means, Standard Deviations, and Reliability Coefficients of the Measured Variables

Variable	1	2	3	4	5	6	7	8	9
1. Extraversion	-								
2. Neuroticism	.02	-							
3. WTF Conflict	-.13	.36**	-						
4. FTW Conflict	-.04	.31**	.41**	-					
5. W/F Conflict SE	.14	-.48**	-.48**	-.61**	-				
6. Social Support	.25**	-.37**	-.27**	-.22**	.29**	-			
7. Work Satisfaction	.12	-.35**	-.26**	-.28**	.40**	.31**	-		
8. Family Satisfaction	.06	-.31**	-.26**	-.46**	.41**	.45**	.32**	-	
9. Life Satisfaction	.11	-.44**	-.33**	-.45**	.49**	.52**	.48**	.68**	-
M	.59	.37	4.40	3.24	5.75	3.60	5.31	4.64	5.09
SD	.30	.25	1.75	1.53	1.78	.35	1.35	.68	1.30
Alpha	.87	.77	.94	.88	.95	.91	.79	.84	.86

Note. WTF Conflict = Work-to-Family Conflict; FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; **p<.01.

Hypothesis 4 – It is predicted that domain-specific satisfactions will mediate the relationships between the work-to-family conflict and global life satisfaction. The following specific mediating relationships are predicted:

Hypothesis 4a – Family satisfaction will mediate the relationship between work-to-family conflict and global life satisfaction, such that the relationship of work-to-family conflict to global life satisfaction will be substantially reduced or eliminated after controlling for family satisfaction.

Hypothesis 4b – Work satisfaction will mediate the relationship between work-to-family conflict and global life satisfaction, such that the relationship of work-to-family conflict to global life satisfaction will be substantially reduced or eliminated after controlling for work satisfaction.

Hypothesis 5 – It is predicted that domains-specific satisfactions will mediate the relationships between family-to-work conflict and global life satisfaction. The following specific mediating relationships are predicted:

Hypothesis 5a – Family satisfaction will mediate the relationship between family-to-work conflict and global life satisfaction, such that the relationship of family-to-work conflict to global life satisfaction will be substantially reduced or eliminated after controlling for family satisfaction.

Hypothesis 5b – Work satisfaction will mediate the relationship between family-to-work conflict and global life satisfaction, such that the relationship of family-to-work conflict to global life satisfaction will be substantially reduced or eliminated after controlling for work satisfaction.

As predicted, the correlations between the independent variables (work-to-family conflict and family-to-work conflict) and the dependent variable (global life satisfaction), between the independent variables (work-to-family conflict and family-to-work conflict) and the mediators (family satisfaction and work satisfaction), and between the mediators (family satisfaction and work satisfaction) and the dependent variable (global life satisfaction) were statistically significant. A hierarchical regression strategy (Baron & Kenny, 1986) predicting life satisfaction was used in which work-to-family conflict and family-to-work conflict were entered at the first step, and family satisfaction and work satisfaction were entered as a block at the second step. Work-to-family conflict has a negative relationship with global life satisfaction ($\beta = -.18, p < .05$). Family-to-work conflict also has a negative relationship with global life satisfaction ($\beta = -.37, p < .01$). When the domain-specific satisfactions (family satisfaction and work satisfaction) are entered into the equation, the negative relationships of work-to-family conflict ($\beta = -.09, ns$) and family-to-work conflict to global life satisfaction drop ($\beta = -.10, ns$), indicating partial mediating effects for family satisfaction and work satisfaction (see Table 3). Since the regression coefficients for work-to-family conflict and family-to-work conflict were reduced after the effects of family satisfaction and work satisfaction were partialled out, partial mediation effects for family satisfaction and work satisfaction were supported. The full equation accounted for 55% of the variance in global life satisfaction.

Table 3
Regression Analysis of the Mediating Effects of Domain-Specific Satisfactions (Family Satisfaction and Work Satisfaction) on the Relationships between Work-to-Family Conflict and Global Life Satisfaction and between Family-to-Work Conflict and Global Life Satisfaction

Step	β	R	R ² Change	F Change
Step 1:				
WTF Conflict	-.18*			
FTW Conflict	-.37**	.47	.23	26.55**
Step 2:				
WTF Conflict	-.09			
FTW Conflict	-.10			
Family Satisfaction	.53**			
Work Satisfaction	.26**	.74	.33	65.96**

Note. WTF Conflict = Work-to-Family Conflict; FTW Conflict = Family-to-Work Conflict; *p<.05; **p<.01.

It is important to note that in the following tests of Hypotheses 6 and 7, the independent variables were mean centered (converted to deviation scores so that each variable has a mean of zero). This was done in order to minimize collinearity between the product variable and its constituent components, providing a better chance of detecting interaction effects (Tabachnick & Fidell, 2001).

Hypothesis 6 – The following moderators of work-family conflict / family satisfaction relationships are predicted:

Hypothesis 6a – Work-to-family conflict self efficacy will moderate the relationship between work-to-family conflict and family satisfaction, such that the relationship between work-to-family conflict and family satisfaction will be weaker for participants who report higher work-to-family conflict self-efficacy than for those who report lower work-to-family conflict self-efficacy.

A hierarchical regression strategy predicting family satisfaction was used in which work-to-family conflict and work/family conflict self-efficacy were entered as a block

at the first step, and the work-to-family conflict x work/family conflict self-efficacy interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.17; F change = 18.89, p = .00) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.01; F change = 2.58, p = .11). This indicates that work/family conflict self-efficacy does not moderate the relationship between work-to-family conflict and family satisfaction (see Table 4)

Table 4
Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Family Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
WTF Conflict	-.08			
W/F Conflict SE	.37**	.41	.17	18.88**
Step 2				
WTF Conflict	-.09			
W/F Conflict SE	.37**			
WTF Conflict X W/F Conflict SE	.11	.43	.01	2.58

Note. WTF Conflict = Work-to-Family Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; ** p <.01.

Hypothesis 6b – Family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and family satisfaction, such that the relationship between family-to-work conflict and family satisfaction will be weaker for participants who report higher family-to-work conflict self-efficacy than for those who report lower family-to-work conflict self-efficacy.

A hierarchical regression strategy predicting family satisfaction was used in which family-to-work conflict and work/family conflict self-efficacy were entered as a block

at the first step, and the family-to-work conflict x family/work conflict self-efficacy interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.24; F change = 28.82, p = .00) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.01; F change = 1.72, p = .19). This indicates that work/family conflict self-efficacy does not moderate the relationship between family-to-work conflict and family satisfaction (see Table 5)

Table 5
Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Family Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
FTW Conflict	-.34**			
W/F Conflict SE	.20*	.49	.24	28.82**
Step 2				
FTW Conflict	-.34**			
W/F Conflict SE	.18*			
FTW Conflict X W/F Conflict SE	.09	.50	.01	1.72

Note. FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; * p <.05; ** p <.01.

Hypothesis 6c - Perceived social support will moderate the relationship between work-to-family conflict and family satisfaction, such that the relationships between work-to-family conflict and family satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

A hierarchical regression strategy predicting family satisfaction was used in which work-to-family conflict and perceived social support were entered as a block at the first

step, and the work-to-family conflict x perceived social support interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.22; F change = 26.46, $p = .00$) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.01; F change = 2.75, $p = .10$). This indicates that perceived social support does not moderate the relationship between work-to-family conflict and family satisfaction (see Table 6)

Table 6
Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Work-to-Family Conflict and Family Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
WTF Conflict	-.15*			
Social Support	.41**	.47	.22	26.46**
Step 2				
WTF Conflict	-.14*			
Social Support	.44**			
WTF Conflict X Social Support	-.11	.49	.01	2.75

Note. WTF Conflict = Work-to-Family Conflict; * $p < .05$; ** $p < .01$.

Hypothesis 6d - Perceived social support will moderate the relationship between family-to-work conflict and family satisfaction, such that the relationship between family-to-work conflict and family satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

A hierarchical regression strategy predicting family satisfaction was used in which family-to-work conflict and perceived social support were entered as a block at the first

step, and the family-to-work conflict x perceived social support interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.34; F change = 47.84, $p = .00$) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.01; F change = 1.64, $p = .20$). This indicates that perceived social support does not moderate the relationship between family-to-work conflict and family satisfaction (see Table 7)

Table 7
Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Family-to-Work Conflict and Family Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
FTW Conflict	-.38**			
Social Support	.37**	.59	.34	47.84**
Step 2				
FTW Conflict	-.38**			
Social Support	.36**			
FTW Conflict X Social Support	.08	.59	.01	1.64

Note. FTW Conflict = Family-to-Work Conflict; ** $p < .01$.

Hypothesis 7 – The following moderators of work-family conflict / work satisfaction relationships are predicted:

Hypothesis 7a – Work-to-family conflict self efficacy will moderate the relationship between work-to-family conflict and work satisfaction, such that the relationship between work-to-family conflict and work satisfaction will be weaker for participants who report higher work-to-family conflict self-efficacy than for those who report lower work-to-family conflict self-efficacy.

A hierarchical regression strategy predicting work satisfaction was used in which work-to-family conflict and work/family conflict self-efficacy were entered as a block at the first step, and the work-to-family conflict x work/family conflict self-efficacy interaction term was entered at the second step. Results indicated that there was a significant \underline{R}^2 change value (.17; F change = 18.35, $p = .00$) at step 1. The significant \underline{R}^2 change value (.04; F change = 7.97, $p = .00$) at step 2 when the interaction term was added indicates that work/family conflict self-efficacy moderates the relationship between work-to-family conflict and work satisfaction (see Table 8).

Follow-up procedures recommended by Tabachnick and Fidell (2001) were employed to establish the form of the interaction and its correspondence to the pattern predicted by the present hypothesis. To aid in interpreting the results, a graph was created with the predicted mean outcomes for four conditions. These conditions included low work/family conflict self-efficacy / low work-to-family conflict, low work/family conflict self-efficacy / high work-to-family conflict, high work/family conflict self-efficacy / low work-to-family conflict, and high work/family conflict self-efficacy / high work-to-family conflict. The low conditions were defined as one standard deviation below the centered mean work/family conflict self-efficacy and centered mean work-to-family conflict scores for this sample. The high conditions were defined as one standard deviation above the centered mean work/family conflict self-efficacy and centered mean work-to-family conflict scores for this sample. Based on a regression equation (Tabachnick and Fidell, 2001) using the low or high conditions for work-to-family conflict and work/family conflict self-efficacy, it was possible to derive a predicted score of work satisfaction for the four conditions. The predicted work

satisfaction scores for the four conditions are presented in the graph in Figure 5.

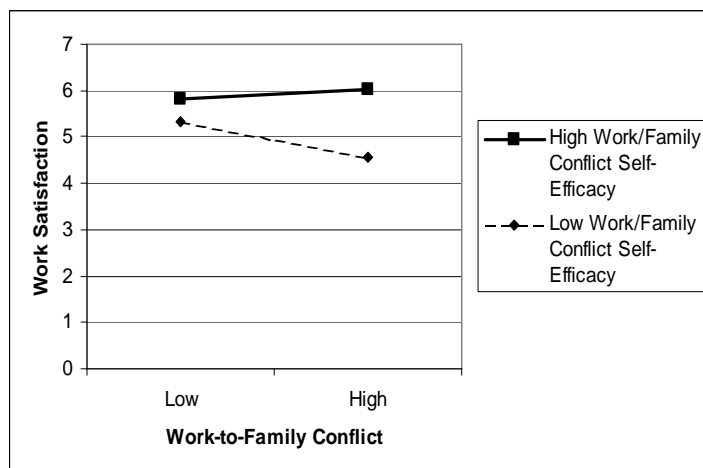
Work/family conflict self-efficacy appears to moderate the relationship such that higher levels of self-efficacy are predictive of a weak positive relationship between work-to-family conflict and work satisfaction, whereas relatively lower levels of work/family conflict self-efficacy are predictive of a negative relationship between work-to-family conflict and work satisfaction.

Table 8
Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Work Satisfaction

Step	β	R	R ² Change	F Change
Step 1				
WTF Conflict	-.09			
W/F Conflict SE	.36**	.41	.17	18.35
Step 2				
WTF Conflict	-.10			
W/F Conflict SE	.35**			
WTF Conflict X W/F Conflict SE	.19**	.45	.04	7.97**

Note. WTF Conflict = Work-to-Family Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; **p<.01.

Figure 5
Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Work-to-Family Conflict and Work Satisfaction.



Hypothesis 7b – Family-to-work conflict self-efficacy will moderate the relationship between family-to-work conflict and work satisfaction, such that the relationship between family-to-work conflict and work satisfaction will be weaker for participants who report higher family-to-work conflict self-efficacy than for those who report lower family-to-work conflict self-efficacy.

A hierarchical regression strategy predicting work satisfaction was used in which family-to-work conflict and work/family conflict self-efficacy were entered as a block at the first step, and family-to-work conflict x family/work conflict self-efficacy interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.16; F change = 17.69, p = .00) at step 1. The significant R^2 change value (.03; F change = 7.13, p = .00) at step 2 when the interaction term was added indicates that work/family conflict self-efficacy moderates the relationship between family-to-work conflict and work satisfaction (see Table 9).

Follow-up procedures recommended by Tabachnick and Fidell (2001) were employed to establish the form of the interaction and its correspondence to the pattern predicted by the present hypothesis. As in the testing of Hypothesis 7a, to aid in interpreting the results, a graph was created with the predicted mean outcomes for four conditions. The low conditions were defined as one standard deviation below the centered mean work/family conflict self-efficacy and centered mean family-to-work conflict scores for this sample. The high conditions were defined as one standard deviation above the centered mean work/family conflict self-efficacy and centered mean family-to-work conflict scores for this sample. The predicted work satisfaction scores for the four conditions are presented in the graph in Figure 6. Work/family conflict

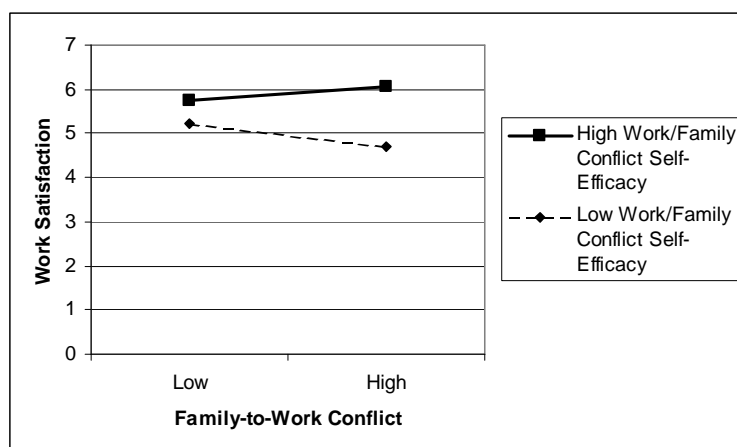
self-efficacy appears to moderate the relationship such that higher levels of self-efficacy are predictive of a weak positive relationship between family-to-work conflict and work satisfaction, whereas relatively lower levels of work/family conflict self-efficacy are predictive of a negative relationship between family-to-work conflict and work satisfaction.

Table 9
Regression Analysis of the Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Work Satisfaction

Step	β	R	R ² Change	F Change
Step 1				
FTW Conflict	-.05			
W/F Conflict SE	.37**	.40	.16	17.69**
Step 2				
FTW Conflict	-.04			
W/F Conflict SE	.34**			
FTW Conflict X W/F Conflict SE	.18**	.44	.03	7.13**

Note. FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; **p<.01.

Figure 6
Moderating Effects of Work/Family Conflict Self-Efficacy on the Relationship between Family-to-Work Conflict and Work Satisfaction



Hypothesis 7c - Perceived social support will moderate the relationship between work-to-family conflict and work satisfaction, such that the relationships between work-to-family conflict and work satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

A hierarchical regression strategy predicting work satisfaction was used in which work-to-family conflict and perceived social support were entered as a block at the first step, and the work-to-family conflict x perceived social support interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.13; F change = 13.64, $p = .00$) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.00; F change = .07, $p = .80$). This indicates that perceived social support does not moderate the relationship between work-to-family conflict and work satisfaction (see Table 10)

Table 10
Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Work-to-Family Conflict and Work Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
WTF Conflict	-.20**			
Social Support	.25**	.36	.13	13.64**
Step 2				
WTF Conflict	-.20**			
Social Support	.26**			
WTF Conflict X Social Support	-.02	.36	.00	.07

Note. WTF Conflict = Work-to-Family Conflict; ** $p < .01$.

Hypothesis 7d - Perceived social support will moderate the relationship between family-to-work conflict and work satisfaction, such that the relationship between family-to-work conflict and work satisfaction will be weaker for participants who report higher levels of perceived social support than for those who report lower levels of perceived social support.

A hierarchical regression strategy predicting work satisfaction was used in which family-to-work conflict and perceived social support were entered as a block at the first step, and the family-to-work conflict x perceived social support interaction term was entered at the second step. Results indicated that there was a significant R^2 change value (.14; F change = 14.92, p = .00) at step 1. However, there was a non-significant R^2 change value at step 2 when the interaction term was entered (.00; F change = .00, p = .99). This indicates that perceived social support does not moderate the relationship between family-to-work conflict and work satisfaction (see Table 11)

Table 11
Regression Analysis of the Moderating Effects of Perceived Social Support on the Relationship between Family-to-Work Conflict and Work Satisfaction

Step	β	R	R^2 Change	F Change
Step 1				
FTW Conflict	-.22**			
Social Support	.26**	.37	.14	14.92**
Step 2				
FTW Conflict	-.22**			
Social Support	.26**			
FTW Conflict X Social Support	.00	.37	.00	.00

Note. FTW Conflict = Family-to-Work Conflict; ** p <.01.

Exploratory Analyses

Exploratory Question 1 – Do the following variables account for unique variance in global life satisfaction above and beyond the variance accounted for by the personality traits of extraversion and neuroticism: work satisfaction, family satisfaction, work-to-family conflict, family-to-work conflict, work-to-family conflict self efficacy, family-to-work conflict self-efficacy, and perceived social support?

A multiple regression analysis was conducted in which global life satisfaction was predicted by the following variables entered in sets: Extraversion and neuroticism were entered in the first set, and the other variables were entered in the second set in order to see which of the variables account for unique variance in global life satisfaction above and beyond the variance accounted for by extraversion and neuroticism. Results indicated that extraversion and neuroticism jointly accounted for 21% of the variance at step 1, but only neuroticism produced a significant beta weight ($\beta = -.44, p < .01$). The following three variables accounted for significant variance in global life satisfaction above and beyond the variance accounted for by neuroticism: work satisfaction ($\beta = .19, p < .01$), family satisfaction ($\beta = .43, p < .01$), and perceived social support ($\beta = .18, p < .01$) (see Table 12). The other variables (work-to-family conflict, family-to-work conflict, and work/family conflict self-efficacy) did not account for additional unique variance in global life satisfaction.

Table 12
Regression Analysis Predicting Global Life Satisfaction

Step	β	R	R ² Change	F Change
Step 1:				
Extraversion	.12			
Neuroticism	-.44**	.46	.21	24.09**
Step 2:				
WTF Conflict	-.01			
FTW Conflict	-.06			
W/F Conflict SE	.10			
Social Support	.18**			
Work Satisfaction	.19**			
Family Satisfaction	.43**	.78	.39	28.88**

Note. WTF Conflict = Work-to-Family Conflict; FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; **p<.01.

Exploratory Question 2 – Do the following variables account for unique variance in (a) family satisfaction and (b) work satisfaction, above and beyond the variance accounted for by the personality traits of extraversion and neuroticism? These variables include work-to-family conflict, family-to-work conflict, work-to-family conflict self efficacy, family-to-work conflict self-efficacy, and perceived social support.

(a) A multiple regression analysis was conducted to assess whether any of the variables (work-to-family conflict, family-to-work conflict, work/family conflict self-efficacy, and perceived social support) account for unique variance in family satisfaction above and beyond the variance accounted for by extraversion and neuroticism. Extraversion and neuroticism jointly accounted for 10% of the variance at step 1, but only neuroticism produced a significant beta weight ($\beta = -.32$, $p < .01$). The following two variables accounted for significant variance in family satisfaction above and beyond the variance accounted for by neuroticism: family-to-work conflict ($\beta = -.32$, $p < .01$) and perceived social support ($\beta = .35$, $p < .01$) (see Table 13). The other

variables (work-to-family conflict, and work/family conflict self-efficacy) did not account for unique variance in family satisfaction above and beyond the variance accounted for by neuroticism.

Table 13
Regression Analysis Predicting Family Satisfaction

Step	β	R	R ² Change	F Change
Step 1:				
Extraversion	.07			
Neuroticism	-.32**	.32	.10	10.61**
Step 2:				
WTF Conflict	.03			
FTW Conflict	-.32**			
W/F Conflict SE	.11			
Social Support	.35**	.60	.25	17.46**

Note. WTF Conflict = Work-to-Family Conflict; FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; **p<.01.

(b) A multiple regression analysis was conducted to assess whether any of the variables (work-to-family conflict, family-to-work conflict, work/family conflict self-efficacy, and perceived social support) account for unique variance in work satisfaction above and beyond the variance accounted for by extraversion and neuroticism. Extraversion and neuroticism jointly accounted for 14% of the variance at step 1, but only neuroticism produced a significant beta weight ($\beta = -.36$). The following two variables accounted for significant variance in work satisfaction above and beyond the variance accounted for by neuroticism: work/family conflict self-efficacy ($\beta = .24$, $p < .05$) and perceived social support ($\beta = .15$, $p < .05$) (see Table 14). The other variables (work-to-family conflict and family-to-work conflict) did not account for unique

variance in work satisfaction above and beyond the variance accounted for by neuroticism.

Table 14
Regression Analysis Predicting Work Satisfaction

Step	β	R	R ² Change	F Change
Step 1:				
Extraversion	.13			
Neuroticism	-.36**	.38	.14	15.11**
Step 2:				
WTF Conflict	-.03			
FTW Conflict	-.03			
W/F Conflict SE	.24*			
Social Support	.15*	.47	.08	4.64**

Note. WTF Conflict = Work-to-Family Conflict; FTW Conflict = Family-to-Work Conflict; W/F Conflict SE = Work/Family Conflict Self-Efficacy; *p<.05; **p<.01.

Chapter 5

Discussion

The purpose of the current study was to examine the hypothesized relationships of work-family conflict to global life satisfaction and domain-specific satisfactions, and the hypothesized mediators and moderators of these relationships in the unique population of female graduate students.

The results of the correlational analyses supported most of the hypotheses. As hypothesized, neuroticism was negatively related to global life satisfaction, both work and family satisfaction were positively related to global life satisfaction, both work-to-family conflict and family-to-work conflict were negatively related to global life satisfaction, and combined work/family conflict self-efficacy and perceived social support were positively related to global life satisfaction. Furthermore, as hypothesized, neuroticism was negatively related to both family and work satisfaction, work-to-family conflict and family-to-work conflict were negatively related to both family and work satisfaction, and combined work/family conflict self-efficacy and perceived social support were positively related to both family and work satisfaction. These results are consistent with past research that has found significant relationships among these variables (Aryee et al., 1999; Beutell & Wittig-Berman, 1999; DeNeve & Cooper, 1998; Judge et al., 2002; Netemeyer et al., 1996; Wiley, 1987). However, it is important to note that this study was the first test of the relationships of work/family conflict self-efficacy to family, work, and global life satisfactions.

Although it was hypothesized that extraversion would be positively related to global life satisfaction and domain-specific satisfactions (family and work satisfaction), the

correlations between the participants' scores on the extraversion scale of the EPQ-R and their scores on all three satisfaction measures were all small and not statistically significant. Results from the current study suggest that extraversion was largely unrelated to family, work, and global life satisfaction. Thus, in the current study, female graduate students who were more extraverted were not more likely to report higher levels of family, work, and global life satisfaction than those who were less extraverted. These findings are at odds with prior research showing that extraversion is positively related to subjective well-being, including global life satisfaction (Diener et al., 1985; Pavot & Diener, 1993). It is possible that extraversion may be linked to subjective well-being via the affective components (positive and negative affect) rather than the cognitive component (life satisfaction) of subjective well-being.

In the current study, it was also hypothesized that the domain-specific satisfactions (family and work satisfaction) would mediate the relationships between (a) work-to-family conflict and global life satisfaction, and between (b) family-to-work conflict and global life satisfaction. Results indicated that the relationships between work-to-family conflict and global life satisfaction, and between family-to-work conflict and global life satisfaction were reduced after controlling for family and work satisfaction. Thus, family satisfaction and work satisfaction partially mediated the relationships between work-to-family conflict and global life satisfaction, and between family-to-work conflict and global life satisfaction. This pattern of findings is consistent with a causal sequence in which work-family conflict (work-to-family conflict and family-to-work conflict) reduces domain-specific satisfaction, and lowered domain-specific satisfaction, in turn, diminishes overall life satisfaction. However, the cross-sectional nature of the

design can only suggest, but not prove, cause-effect relations. It is also important to note that these findings suggesting mediating relationships could reflect common method variance rather than mediating relationships. That is, three self-report measures of satisfaction (family, work, global life satisfaction) were used in the current study, and each was assessed at the same point in time. The apparent mediating effects may therefore have been confounded by common method variance.

The present study also tested moderators of the relationship between work-family conflict (work-to-family conflict and family-to-work conflict) and domain-specific satisfactions (work satisfaction and family satisfaction). Results suggested that work/family conflict self-efficacy and perceived social support did not moderate the relationships between work-to-family conflict and family satisfaction, or between family-to-work conflict and family satisfaction. Neither did perceived social support moderate the relationships between work-to-family conflict and work satisfaction, or between family-to-work conflict and work satisfaction. This is inconsistent with prior research which provides evidence for the moderating role of social support in the relationships between interrole conflict stressors and strain symptoms (Aryee et al., 1999; Suchet & Barling, 1996). However, these past studies examined a specific form of social support (spouse support), whereas the current study assessed a global form of social support.

Results indicated that work/family conflict self-efficacy did moderate both the relationship between work-to-family conflict and work satisfaction, and between family-to-work conflict and work satisfaction. Supplemental analyses were used to establish the form of the interaction and its correspondence to the pattern predicted by

the hypotheses (Tabachnick & Fidell, 2001). These analyses indicated that work/family conflict self-efficacy moderated the relationships such that higher levels of work/family conflict self-efficacy are predictive of weak positive relationships between work-to-family conflict and work satisfaction, and between family-to-work conflict and work satisfaction. By contrast, relatively lower levels of work/family conflict self-efficacy are predictive of negative relationships between work-to-family conflict and work satisfaction, and between family-to-work conflict and work satisfaction. Thus, for a female graduate student who does not feel confident in managing work-family conflict, as work-family conflict increases, her work satisfaction will decrease. On the other hand, for a female graduate student who feels confident in managing work-family conflict, as work-family conflict increases, her work satisfaction will slightly increase. This may suggest that, when accompanied by high self-efficacy to manage work-family conflict, work-family conflict may be experienced as a challenge to be tackled rather than a source of strain that diminishes work satisfaction. This interpretation should, however, be viewed as tentative. For one thing, the moderator pattern needs to be replicated in future research. For another, this interpretation should not be taken to imply that women with low work/family conflict self-efficacy are culpable for their diminished work satisfaction.

Prior research has found that the personality traits of extraversion and neuroticism have consistently been shown to account for significant variance in global life satisfaction (Diener & Lucas, 1999). Since it was unclear which variables in the present study (including work satisfaction, family satisfaction, work-to-family conflict, family-to-work conflict, work/family conflict self-efficacy and perceived social support) should

account for unique variance in global life satisfaction above and beyond the variance accounted for by the personality variables of extraversion and neuroticism, this part of the study was exploratory in nature. Although extraversion and neuroticism jointly accounted for 21% of the variance in global life satisfaction, only neuroticism was significantly related to global life satisfaction. Work satisfaction, family satisfaction, and perceived social support accounted for significant unique variance in global life satisfaction above and beyond the variance accounted for by neuroticism.

Two separate multiple regression analyses were conducted to assess whether any of the current study's variables (work-to-family conflict, family-to-work conflict, work/family conflict self-efficacy, and perceived social support) accounted for unique variance in family satisfaction and in work satisfaction above and beyond the variance accounted for by extraversion and neuroticism. Extraversion and neuroticism jointly accounted for 10% of the variance in family satisfaction and 14% of the variance in work satisfaction, but only neuroticism was significantly related to both family satisfaction and work satisfaction. Results suggested that family-to-work conflict and perceived social support each accounted for significant unique variance in family satisfaction above and beyond the variance accounted for by neuroticism. Furthermore, work/family conflict self-efficacy and perceived social support accounted for significant unique variance in work satisfaction above and beyond the variance accounted for by neuroticism.

In the current study, there was a high positive correlation between family satisfaction and global life satisfaction. Female gender socialization and high spillover between life domains may contribute to the high correlation between family satisfaction and global

life satisfaction. For instance, these women in the current study's sample may have been socialized to highly value family and, therefore, if they are not satisfied with their family life, then they will not be satisfied with their lives in general

Limitations

There were some limitations of the current study that should be discussed. The present study relied on self-report measures. There are inherent limitations regarding the use of self-report methodology. Social desirability can influence an individual's self-report of such variables as family satisfaction and, thus, may affect the accuracy of the family satisfaction ratings. The participants in the present study had an average rating of 4.64 on a scale from 1-5 on family satisfaction. Female graduate students may have difficulties indicating their true level of family satisfaction because it is not considered socially desirable for a woman to experience low levels of family satisfaction. Women may also want to think that they are very satisfied with their family life even when, in fact, they are not very satisfied. Thus, they may be likely to inflate their ratings of family satisfaction.

Although there is prior research to support the positive relationship between extraversion and subjective well-being, including global life satisfaction, the current study suggests that extraversion is largely unrelated to family, work, and global life satisfaction. There might be some limitations of the extraversion scale used in the current study. The EPQ-R (Eysenck, 1985) might not be capturing all that is meant by extraversion including the extraverted quality of seeking and using social support in one's life.

Although the initial mailings of surveys were sent to a random sample of female graduate students obtained through the Office of the Registrar, the students who completed the survey may in some way be different from those who did not. Some of the participants may have had a stronger interest in the topic than those who did not complete the survey. In addition, generalizability of the results is limited due to the specific demographic makeup of the sample, which is composed of female graduate students from a relatively privileged and upper socioeconomic status. Since all of the participants were female graduate students enrolled at the University of Maryland, it is unclear whether findings based on this sample of female graduate students would replicate in samples who are more diverse with respect to race/ethnicity and socioeconomic status or who are enrolled at other colleges and universities in different geographic regions. Generalizability of the present study's results is also limited to women who self-identify as heterosexual.

The time of the semester in which the surveys were administered might create another limitation in the study. For example, there may be differences in the work-family conflict of students at the beginning of the semester as compared with the end of the semester. In the current study, the surveys were administered during the 6th week of the fall semester, which may have been a time in the semester when coursework and assignments are becoming more difficult and students' schedules are becoming increasingly busy.

There are other important limitations of the current study that are important to note. Since the design of the present study was correlational and cross-sectional, the findings of significant correlations do not imply causation. In addition, since the current study

relied solely on self-report data from a single source at one point in time, there may have been the possibility of common method variance in which relationships among variables are inflated because only one method of measurement was used (Heppner et al., 1999). The correlation matrix for the current study indicates that the study's variables are not totally distinct and capture shared overlapping variance. Results suggest that many of the study's variables overlap. This overlap may be due to common method variance. However, it still makes sense based on prior research, the present factor analytic findings, and theory to treat the current study's variables as separate variables and analyze them in that manner. Furthermore, it should be noted that the number of significant findings reported in this study may have been inflated by experimentwise error rate. For example, some of the significant correlations in Table 2 may have been spurious. For this reason, and because there is a current trend in psychology to place greater focus on effect size (Tracey, 2000), it seems important to consider the magnitude of the relations obtained, apart from their level of significance.

Future Research

There is a large body of research on work-family conflict in the lives of people working in the paid labor force while simultaneously juggling the roles of paid worker, partner, parent, and homemaker. However, there is a lack of research that examines female graduate students and their experiences of work-family conflict. The present study examined the relationship of work-family conflict to global life satisfaction and to domain-specific (family, work) satisfactions, as well as the mediators and moderators of these relationships among female graduate students. The relationships among these

variables were examined in order to begin to integrate work-family conflict research with research on the lives of female graduate students.

Most of the prior research on work-family conflict has been conducted using samples of women who are currently employed in the paid labor force while simultaneously juggling the roles of paid worker, partner, parent, and homemaker. Findings from the current study extend prior significant findings between the relationships of work-family conflict to domain-specific (family, work) satisfaction and global life satisfaction to now include the unique population of female graduate students. Furthermore, findings from the current study shed new light on the mediators and moderators of these relationships and can guide future research in this area. For instance, it would be important to continue to examine the moderating role of work/family conflict self-efficacy in the relationship between work-family conflict and work satisfaction in women in the paid labor force to determine if there would be findings consistent with the current study. If work/family conflict self-efficacy proved to be a consistent moderator of the relationship between work/family conflict and work satisfaction, then employers could use these findings to implement programs for employees that aid in the development and enhancement of their work/family conflict self-efficacy. Furthermore, future research should examine the moderating roles of more specific forms of social support (i.e., spouse support) in the relationships between work-family conflict and domain-specific satisfactions (family and work satisfaction). Future research should continue to examine additional variables that could explain the variance in domain-specific and global life satisfaction in samples of female graduate students. Other possible predictors of work, family and global life satisfaction might

include goal progress, delay of gratification, and normalizing work-family conflict (as a natural part of graduate school).

The present study has opened the door to a host of research ideas and directions for the future. Future research in this area needs to examine diversity and take a more multicultural approach. Stereotyping, restricted advancement opportunities, attributional biases, and stresses associated with token status are unique career issues that minority groups often experience (Greenhaus & Parasuraman, 1993; Greenhaus, Parasuraman, & Wormley, 1990). It seems that these difficult issues might contribute to increased work-family conflict and decreased life satisfaction. Thus, future research needs to examine the relationship between work-family conflict and life satisfaction among larger samples of racial and ethnic minority groups of female graduate students. Furthermore, since the design of the present study was correlational, the findings of significant correlations cannot establish causation. Therefore, there is a need for longitudinal research in order to test causality in this area of research.

The present study used a sample of heterosexual female graduate students. Future research should examine the relationship between work-family conflict and global life satisfaction, the relationship between work-family conflict and domain specific satisfactions, and the mediators and moderators of these relationships in the lives of lesbian graduate students. It could be helpful to examine the similarities and differences that might exist in this area between heterosexual and homosexual female graduate students. Furthermore, it would be important to examine the validity of the work-family conflict and work/family conflict self-efficacy measures in samples of homosexual women.

Future research also needs to examine individuals of different socioeconomic statuses (SES). The majority of female graduate students in the current study reported an immediate family's total, combined annual income of over \$40,000, with 18.2% reporting a range of \$60,001-\$80,000, 16% reporting a range of \$80,001-\$100,000, and 34.2% reporting a total combined family income of over \$100,000. Thus, a majority of the sample in the current study were of middle-class or higher socioeconomic status. Therefore, in the future, it is important to study female graduate students from lower SES groups since those families who earn lower incomes may be less able to afford high-quality child care and may lack the resources for conveniences that might lessen the negative impact of work-family conflict.

Although the existing body of work-family conflict research traditionally has focused on women, it has increasingly begun to focus on men. Future research in the area of men and work-family conflict should also study male graduate students. It could be useful to examine male graduate students' experience of work-family conflict and its relationship to domain-specific and global life satisfaction.

Further research is also needed in the area of work-family conflict self efficacy measure development and validation. Cinamon (2003) recently developed and began to validate a work-family conflict self-efficacy measure which was assessed by the two 5-item scales (work-to-family conflict self-efficacy and family-to-work conflict self-efficacy) used in the current study. These two 5-item scales were administered as one 10-item measure. Due to common method variance (i.e., administration of all items on a single page), participants may have answered all ten items similarly. Results revealed that work-to-family conflict self-efficacy and family-to-work conflict self-efficacy

loaded on one factor rather than on two separate factors. By comparison, the two 5-item work-family conflict scales (work-to-family conflict and family-to-work conflict) developed and validated by Netemeyer et al. (1996) were administered to the participants as two separate 5-item measures as per Netemeyer's suggestion. Results revealed that work-to-family conflict and family-to-work conflict loaded on two separate factors. Future researchers could administer Netemeyer's five work-to-family conflict items and five family-to-work conflict items as one 10-item measure to examine whether the work-to-family conflict and family-to-work conflict items would load on one or two factors.

Further research on the factor structure of work-family conflict and work-family conflict self-efficacy scales is needed to determine the stability of these structures and the extent to which they are affected by measurement conditions. The further development and validation of work-family conflict self efficacy measures could be quite helpful to further research in the area of work-family conflict. Future studies could then examine important variables that are related, or contribute, to women's work-family conflict self-efficacy. Research that examines experiential, psychological, and personality variables that are related to work-family conflict self efficacy could be quite valuable in understanding how work-family conflict self-efficacy is developed, fostered, and maintained.

Although prior research has suggested that extraversion is positively related to global life satisfaction (Diener et al., 1985; Pavot & Diener, 1993), in the current study, extraversion did not correlate significantly with any of the hypothesized outcome variables including work, family, and global life satisfactions. Furthermore,

extraversion did not correlate significantly with any of the other variables in the study except for the positive correlation between extraversion and perceived social support ($r = .25, p < .01$). Thus, female graduate students who were more extraverted were more likely to perceive themselves as having social support than those who were less extraverted. However, female graduate students who were more extraverted were no more likely to report higher levels of work, family, and global life satisfaction than those who were less extraverted. Future research might examine extraversion in relation to the affective components (positive affect, negative affect) of Diener's (1999) tripartite conceptualization of subjective well-being in female graduate students.

Implications for Practice

Although preliminary and in need of replication, the findings from the present study may have useful practical implications. Counselors and educators can use relevant data to help female graduate students manage their work-family conflict and the negative impact that work-family conflict can have on their family, work, and global life satisfaction.

Work-to-family conflict and family-to-work conflict were found to be two distinct and separate factors. Although it is useful to measure the direction of the conflict through research, it might be helpful from a practical standpoint to focus on helping females to develop a common set of coping skills that can help them to manage and deal with both work-to-family conflict and family-to-work conflict. A common set of coping skills might include setting boundaries, saying "no," and actively engaging others' support.

Counselors and educators can use findings from the present study to educate female graduate students about the complexities of the relationship of work-family conflict to global life satisfaction and domain-specific satisfactions. For example, the current study found that work/family conflict self-efficacy moderates the relationships between work-to-family conflict and work satisfaction, and between family-to-work conflict and work satisfaction. Therefore, if a female graduate student is not satisfied with her work and struggles with work-family conflict, it could be especially beneficial for a counselor to work with her to increase her work/family conflict self-efficacy. If the female graduate student's work/family conflict self-efficacy can be increased, then this can lead to changes in the negative relationships between work-family conflict and work satisfaction. More specifically, with increased work/family conflict self-efficacy, these negative relationships might be neutralized, perhaps with work-family conflict being viewed more as a challenge to be resolved than as a strain to be endured.

In this scenario, counselors, using psychoeducational interventions, can help female graduate students to become more aware of the complexities of managing work-family conflict and help them then to prepare and plan for how to engage effectively in managing work-family conflict. Psychoeducational interventions might include providing support groups for female graduates at various points in their graduate training. These support groups could provide female graduate students with information and resources to help them to manage their work and family roles and responsibilities. Furthermore, results indicated that perceived social support is an important variable that accounts for unique variance in family, work, and global life satisfaction above and beyond the variance accounted for by neuroticism. Therefore, it

would be important for counselors to develop and implement interventions focusing on the importance of social support and building supportive social networks in the lives of female graduate students.

It could be beneficial to develop and test interventions that help female graduate students learn about both the positive and negative experiences of managing work-family conflict. It would be important to tailor these psychoeducational interventions to different developmental points in a woman's life. For instance, a female graduate student who is married without children may benefit from listening to the experiences of other women who have been in graduate school while juggling an intimate relationship. Likewise, a female graduate student who is both married and has children may benefit from listening to the experiences of other women who have been in graduate school while simultaneously juggling the role of spouse and parent. More specifically, it would be helpful for her to learn how these women have learned to maintain their relationships with their significant others and provide a nurturing relationship to their children without sacrificing the pursuit of their career goals. One of the main sources of self-efficacy is vicarious learning (Lent & Brown, 1996; Lent et al., 1994). Thus, work/family conflict self-efficacy could be developed and increased through vicarious learning.

The literature suggests that a lack of attention to life role planning can lead to greater stress, conflict, and unplanned compromises for women once they are actually involved in multiple roles (Weitzman & Fitzgerald, 1996). Therefore, it could be quite beneficial to use the findings from this study and from future studies to help increase women's awareness and understanding of their own experiences of work-family conflict and how

their work-family conflict may contribute to their family, work, and global life satisfaction. Counselors and administrators could develop prevention-oriented orientation programs for female graduate students that focus on work-family conflict issues and the relationships of work-family conflict to work, family, and global life satisfactions. Through increased awareness and understanding, female graduate students can work with counselors to better plan for managing work-family conflict.

In the work-family conflict literature, Googins and Burden (1987) have provided suggestions including creating more flexible work schedules, child-care programs, staff training on workplace-family issues, and expanded employee assistance programs. As consultants, counseling psychologists can play a key role in developing programs to help universities learn about and deal with work-family conflict issues. For example, since work/family conflict self-efficacy moderates the relationship of work-family conflict to work satisfaction, it could be beneficial to develop staff and counselor training programs to help increase female graduate students' work/family conflict self-efficacy. With lower levels of work/family conflict self-efficacy, there is more likely to be negative relationships between work-family conflict and work satisfaction.

Decreased satisfaction with work/school may, in turn, lead to increased attrition rates among female graduate students. Thus, it would help to develop programs that focus on increasing female graduate students' work/family conflict self-efficacy. Such programs could include child-care programs, flexible work schedules, and counseling.

This research on the relationship between work-family conflict and life satisfaction highlights the importance of looking at both family and work domains together rather than treating them as separate domains. Therefore, in regard to counseling, it could be

helpful for counselors to be trained to examine both career and family issues in the context of both personal counseling and career counseling. In doing so, counselors can work directly with female graduate students to help them learn to manage their work-family conflict and to increase their work/family conflict self-efficacy and social support. Such interventions may promote their family, work, and global life satisfaction.

Appendix A
Demographic Form

1. Age _____
2. Sex: Female _____ Male _____
3. Ethnicity: _____ African American
_____ Native American
_____ Asian American
_____ Latina
_____ Caucasian
_____ Other (please specify) _____
4. What graduate degree are you seeking? _____
5. Graduate program _____
6. Number of semesters enrolled as a graduate student _____
7. Marital status: _____ Single
_____ Married
_____ Separated
_____ Divorced
_____ Widowed
8. Are you currently involved in a romantic relationship with a member of the opposite sex?
_____ Yes
_____ No

If yes, for how long have you been in this relationship? _____ (in months)
9. Do you have children?
_____ Yes
_____ No

If yes, how many children do you have? _____

If yes, what are the ages of all of your children? _____

If yes, what are the ages of the children who live with you? _____

10. Involvement in work-related roles (please check all that apply):

- Student role
 Paid worker in job on campus (how many hours per week _____)
 Paid worker in job off campus (how many hours per week _____)
 Volunteer

11. Career or intended career _____

12. Check the category that includes your immediate family's total, combined annual income:

- Under \$10,000
 \$10,001 - \$15,000
 \$15,001 - \$25,000
 \$25,001 - \$40,000
 \$40,001 - \$60,000
 \$60,001 - \$80,000
 \$80,001 - \$100,000
 Over \$100,001

13. Are you a _____ full-time student or _____ part-time student?

14. How many credits are you enrolled for this semester (Fall 2003)? _____

15. On a scale from 1 (very dissatisfied) to 7 (very satisfied), how satisfied are you with your marriage? _____

16. If unmarried and in a romantic relationship with a member of the opposite sex, on a scale from 1 (very dissatisfied) to 7 (very satisfied), how satisfied are you with your relationship? _____

17. On a scale from 1 (very dissatisfied) to 7 (very satisfied), how satisfied are you with being a parent? _____

Appendix B

Work-to-family Conflict Scale

Netemeyer, Boles, & McMurrian (1996)

Below are five statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. The words “work” and “job” refer to all work-related activities that you do as part of your graduate school work and for paid work on and off campus. The word “family” refers to the following domains of family life that pertain to you including being a parent, being a spouse/partner, and overall homelife. Please be open and honest in your responding. The 7-point scale is as follows:

- 1 = strongly disagree**
- 2 = disagree**
- 3 = slightly disagree**
- 4 = neither agree nor disagree**
- 5 = slightly agree**
- 6 = agree**
- 7 = strongly agree**

1. ____ The demands of my work interfere with my home and family life.
2. ____ The amount of time my job takes up makes it difficult to fulfill my family responsibilities.
3. ____ Things I want to do at home do not get done because of the demands my job puts on me.
4. ____ My job produces strain that makes it difficult to fulfill family duties.
5. ____ Due to work-related duties, I have to make changes to my plans for family activities.

Appendix C

Family-to-Work Conflict Scale

Netemeyer, Boles, & McMurrian (1996)

Below are five statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. The words “work” and “job” refer to all work-related activities that you do as part of your graduate school work and for paid work on and off campus. The word “family” refers to the following domains of family life that pertain to you including being a parent, being a spouse/partner, and overall homelife. Please be open and honest in your responding. The 7-point scale is as follows:

- 1 = strongly disagree**
- 2 = disagree**
- 3 = slightly disagree**
- 4 = neither agree nor disagree**
- 5 = slightly agree**
- 6 = agree**
- 7 = strongly agree**

1. ____ The demands of my family or spouse/partner interfere with work-related activities.
2. ____ I have to put off doing things at work because of demands on my time at home.
3. ____ Things I want to do at work don't get done because of the demands of my family or spouse/partner.
4. ____ My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime.
5. ____ Family-related strain interferes with my ability to perform job-related duties.

Appendix D

Work-Family Conflict Self-efficacy Scale

Cinamon (2003)

Please rate your confidence (0 complete lack of confidence – 9 complete confidence) in your ability to perform the following behaviors successfully by circling the appropriate number. The words “work” and “job” refer to all work-related activities that you do as part of your graduate school work and for paid work on and off campus. The word “family” refers to the following domains of family life that pertain to you including being a parent, being a spouse/partner, and overall homelife.

How confident are you that you could....	No Confidence									Complete Confidence
1. Fulfill your job responsibility without letting it interfere with your family responsibilities.	0	1	2	3	4	5	6	7	8	9
2. Attend to your family obligations without it affecting your ability to complete pressing tasks at work.	0	1	2	3	4	5	6	7	8	9
3. Manage incidents in which work life interferes with family life.	0	1	2	3	4	5	6	7	8	9
4. Fulfill all your family responsibilities despite going through a trying and demanding period in your work.	0	1	2	3	4	5	6	7	8	9
5. Manage incidents in which family life interferes with work life.	0	1	2	3	4	5	6	7	8	9
6. Fulfill your family role effectively after a long and demanding day at work.	0	1	2	3	4	5	6	7	8	9
7. Invest in your job even when under heavy pressure due to family responsibilities.	0	1	2	3	4	5	6	7	8	9
8. Succeed in your role at work although there are many difficulties in your family	0	1	2	3	4	5	6	7	8	9

How confident are you that you could....	No Confidence									Complete Confidence
9. Invest in your family role even when under heavy pressure due to work responsibilities.	0	1	2	3	4	5	6	7	8	9
10. Focus and invest in work tasks even though family issues are disruptive.	0	1	2	3	4	5	6	7	8	9

Appendix E

Social Provisions Scale

Cutrona & Russell (1987)

In answering the following questions, think about your current relationships with friends, family members, coworkers, community members, and so on. Then indicate by circling the correct number, to what extent each statement describes your current relationships with other people. Use the following scale to give your opinions.

STRONGLY DISAGREE....the statement clearly does not describe my relationships.

DISAGREE.....the statement is mostly to somewhat untrue of my relationships.

AGREE.....the statement is mostly to somewhat true of my relationships.

STRONGLY AGREE.....the statement is very true of my current relationships.

<u>STRONGLY DISAGREE</u>	<u>DISAGREE</u>	<u>AGREE</u>	<u>STRONGLY AGREE</u>
1	2	3	4

- | | | | | |
|---|---|---|---|---|
| 1. There are other people I can depend on to help me if I really need it. | 1 | 2 | 3 | 4 |
| 2. I feel that I do not have close personal relationships with others. | 1 | 2 | 3 | 4 |
| 3. There is no one I can turn to for guidance in times of stress. | 1 | 2 | 3 | 4 |
| 4. There are people who depend on me for help. | 1 | 2 | 3 | 4 |
| 5. There are people who enjoy the same social activities I do. | 1 | 2 | 3 | 4 |
| 6. Other people do not view me as competent. | 1 | 2 | 3 | 4 |
| 7. I feel personally responsible for the well-being of another person. | 1 | 2 | 3 | 4 |
| 8. I feel part of a group of people who share my attitudes and beliefs. | 1 | 2 | 3 | 4 |
| 9. I do not think that other people respect my skills and abilities | 1 | 2 | 3 | 4 |
| 10. If something went wrong, no one would come to my assistance | 1 | 2 | 3 | 4 |
| 11. I have close relationships that provide me with a sense of emotional security and well-being. | 1 | 2 | 3 | 4 |

Appendix F

Extraversion Scale of Eysenck Personality Questionnaire–Revised

Eysenck, Eysenck, & Barrett, 1985

Please circle yes or no to the following questions.

- | | | |
|--|-----|----|
| 1. Are you a talkative person? | YES | NO |
| 2. Are you rather lively? | YES | NO |
| 3. Do you enjoy meeting new people? | YES | NO |
| 4. Can you usually let yourself go and enjoy yourself at a lively party? | YES | NO |
| 5. Do you usually take the initiative in making new friends? | YES | NO |
| 6. Can you easily get some life into a rather dull party? | YES | NO |
| 7. Do you tend to keep in the background on social occasions? (R) | YES | NO |
| 8. Do you like mixing with people? | YES | NO |
| 9. Do you like plenty of bustle and excitement around you? | YES | NO |
| 10. Are you mostly quiet when you are with other people? (R) | YES | NO |
| 11. Do other people think of you as being very lively? | YES | NO |
| 12. Can you get a party going? | YES | NO |

Appendix G

Neuroticism Scale of Eysenck Personality Questionnaire–Revised

Eysenck, Eysenck, & Barrett, 1985

Please circle yes or no to the following questions.

- | | | |
|--|-----|----|
| 1. Does your mood often go up and down? | YES | NO |
| 2. Do you ever feel 'just miserable' for no reason? | YES | NO |
| 3. Are you an irritable person? | YES | NO |
| 4. Are your feelings easily hurt? | YES | NO |
| 5. Do you often feel 'fed up?' | YES | NO |
| 6. Would you call yourself a nervous person? | YES | NO |
| 7. Are you a worrier? | YES | NO |
| 8. Would you call yourself tense or 'highly strung?' | YES | NO |
| 9. Do you worry too long after an embarrassing experience? | YES | NO |
| 10. Do you suffer from 'nerves?' | YES | NO |
| 11. Do you often feel lonely? | YES | NO |
| 12. Are you often troubled about feelings of guilt. | YES | NO |

Appendix H

Work satisfaction measure

Hackman & Oldham (1975)

Below are three statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. The words “work” and “job” refer to all work-related activities that you do as part of your graduate school work and for paid work on and off campus. The 7-point scale is as follows:

- 1 = strongly disagree**
- 2 = disagree**
- 3 = slightly disagree**
- 4 = neither agree nor disagree**
- 5 = slightly agree**
- 6 = agree**
- 7 = strongly agree**

1. ____ Generally speaking, I am very happy with my work.
2. ____ I frequently think of leaving this job (R)
3. ____ I am generally satisfied with the kind of work I do in my job.

Appendix I

Family satisfaction measure

Below are five statements with which you may agree or disagree. Using the 1 – 5 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. The word “family” refers to the following domains of family life that pertain to you including being a parent, being a spouse/partner, and overall homelife. Please be open and honest in your responding. The 5-point scale is as follows:

- 1 = strongly disagree**
- 2 = disagree**
- 3 = neither agree nor disagree**
- 4 = agree**
- 5 = strongly agree**

1. ____ Most days I am enthusiastic about my family life.
2. ____ I feel fairly well satisfied with my family life.
3. ____ I find real enjoyment in my family life.
4. ____ I like my family life better than the average person does.
5. ____ I am often bored with my family life. (R)

Appendix J

The Satisfaction with Life Scale

Diener, Emmons, Larson, & Griffin (1985)

Below are five statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is as follows:

1 = strongly disagree

2 = disagree

3 = slightly disagree

4 = neither agree nor disagree

5 = slightly agree

6 = agree

7 = strongly agree

1. ____ In most ways, my life is close to my ideal.
2. ____ The conditions of my life are excellent.
3. ____ I am satisfied with my life.
4. ____ So far I have gotten the important things I want in life.
5. ____ If I could live my life over, I would change almost nothing.

Appendix K

Introductory email regarding inclusion criteria

Dear [name of participant],

I am a doctoral student in the Counseling Psychology program at the University of Maryland. I am interested in studying heterosexual female graduate students' experiences of managing work and family roles and responsibilities. Your participation in this project will help to increase our understanding of how female graduate students balance multiple roles. The information from this study could be used to help women and families.

I am sending you this email to invite you to participate in this study. You are invited to participate in this study if you are at least 30 years of age or older, are married and/or have at least one child living at home. I will be sending you a small survey packet in the mail in the next couple of weeks. The survey should take you no more than 15 minutes to complete.

Your participation will be greatly appreciated. Thank you for your time.

Sincerely,

Dana Treistman, M.A.
Doctoral Student
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Robert Lent, Ph.D.
Professor and Co-Director
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Appendix L

Advance-Notice Email

Date

Dear [name of participant],

I am a doctoral student in the Counseling Psychology program at the University of Maryland. I am interested in studying heterosexual female graduate students' experiences of managing work and family roles and responsibilities. Your participation in this project will help to increase our understanding of how female graduate students balance multiple roles.

I am sending you this email now to personally inform you that you will be receiving a small survey packet next week. You are invited to participate in this study if you are at least 30 years of age or older, are married and/or have at least one child living at home. The survey should take you no more than 15 minutes to complete.

Your participation will make a significant contribution to this field of research. Information gathered from this study may be used to aid counselors and educators in meeting the unique needs of female graduate students juggling multiple roles of work and family.

Thank you for your time.

Sincerely,

Dana Treistman, M.A.
Doctoral Student
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Robert Lent, Ph.D.
Professor and Co-Director
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Appendix M

Cover Letter

Date

Dear [name of participant],

By now, you should have received my email. I am a doctoral student in the Counseling Psychology program at the University of Maryland. I am conducting a study of female graduate students regarding their experiences managing their career and family roles and responsibilities. For the purposes of the present study, I will be focusing on heterosexual female graduate students who are 30 years of age or older, who are married and/or have at least one child living at home.

Your participation will make a significant contribution to this area of research, and can aid counselors and educators in helping female graduate students plan, integrate, and manage their multiple family and career roles and responsibilities. The small survey packet should take approximately 15 minutes to complete. Your responses will be kept strictly confidential. Each questionnaire has a code number for mailing purposes only and will be used to check your name off the mailing list when your questionnaire is returned. Your name will not be placed on the questionnaire itself. Participation in this study is completely voluntary. By returning your completed survey packet, I will understand that you have given consent to participate in this study.

Your time and effort in contributing to this important study would be greatly appreciated. To express my personal appreciation for your time, a lottery drawing for three **\$20 cash prizes** will be held upon completion of the study.

Please complete and return the survey packet in the enclosed stamped and addressed envelope. If you feel that the study does not apply to you, please write "not applicable" on the front of the survey packet and return it in the envelope. If you have any questions, please feel free to email me at dtreist@wam.umd.edu. I would be happy to discuss the study with you or answer any questions that you might have. Thank you in advance for your contribution!

Sincerely,

Dana Treistman, M.A.
Doctoral Student
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Robert Lent, Ph.D.
Professor and Co-Director
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Appendix N

Follow-up Email

Last week, I mailed you a survey packet as part of a study I am conducting on heterosexual female graduate students' experiences regarding family and career roles and responsibilities.

If you have already completed and returned the survey, thank you very much for your time and contribution. If not, I would greatly appreciate your taking the time to complete and return it. If you have not received the survey and are interested in participating, I would be more than happy to send you another survey.

If you have any questions, please email me at dtreist@wam.umd.edu.

Thank you again for your time!

Dana Treistman, M.A.
Counseling Psychology Doctoral Student

Appendix O

Second Cover Letter

Dear [name of participant],

About three weeks ago, I mailed you a survey as part of a study I am conducting on heterosexual female graduate students' experiences regarding family and career roles and responsibilities. As of today, I have not received your completed survey. Since life can be quite busy, I realize that you may not have had time to complete it. I would greatly appreciate your participation.

As a reminder, I am conducting a study on heterosexual female graduate students' experiences regarding family and career roles and responsibilities. Your responses to this survey will make an important contribution to this area of research. Enclosed please find another survey. Please complete and return it in the enclosed stamped and addressed envelope. Answering the survey should take no more than 15 minutes. All of your responses will be kept strictly confidential.

Your participation would be greatly appreciated. As a token of appreciation for your time, a lottery drawing for three **\$20 cash prizes** will be held upon completion of the study.

If you have any questions, please email me at dtreist@wam.umd.edu. Again, thank you for your time!

Sincerely,

Dana Treistman, M.A.
Doctoral Student
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Robert Lent, Ph.D.
Professor and Co-Director
Counseling and Personnel Services
University of Maryland
College Park, MD 20742

Appendix P

Form for lottery drawing and notification of results

As a token of appreciation for your time, a lottery drawing of three **\$20 cash prizes** will be held upon completion of the study.

____ Yes, please enter me in the lottery drawing for one of three \$20 cash prizes. If my name is drawn, please send the cash prize to:

Name: _____

Address: _____

____ No, I am not interested in participating in this lottery drawing.

If you are interested in receiving a summary of the results of the study (upon completion of the study), please provide your name and address where you would like the summary of results to be sent.

Name: _____

Address: _____

Thank you for your time and willingness to participate! To ensure confidentiality, this form will be removed from your completed survey and kept in a separate location. Again, thank you for your contribution!

References

- Adams, G. A., King, L. A., & King, D. W. (1996). Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology, 81*, 411-420.
- Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology, 5*, 278-308.
- Amatea, E. S., & Fong, M. L. (1991). The impact of role stressors and personal resources on the stress experience of professional women. *Psychology of Women Quarterly, 15*, 419-430.
- Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being*. New York: Plenum Press.
- Aquino, J. A., Russell, D. W., Cutrona, C. E., & Altmaier, E. M. (1996). Employment status, social support, and life satisfaction among the elderly. *Journal of Counseling Psychology, 43*, 4, 480-489.
- Argyle, M. (1987). *The psychology of happiness*. New York: Methuen.
- Arrindell, W. A., Meeuwesen, L., & Huyse, F. J. (1991). The satisfaction with life scale (SWLS): Psychometric properties in a non-psychiatric medical outpatient sample. *Personality and Individual Differences, 12*, 117-123.
- Aryee, S., Luk, V., Leung, A., & Lo, S. (1999). Role stressors, interrole conflict, and well-being: The moderating influence of spousal support and coping behaviors among employed parents in hong kong. *Journal of Vocational Behavior, 54*, 259-278.

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist*, 37, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1991). Self-regulation of motivation through anticipatory and self-regulatory mechanisms. In R. A. Dienstbier (Ed.), *Perspectives on motivation: Nebraska symposium on motivation* (Vol. 38) (pp. 69-164). Lincoln: University of Nebraska Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Bedeian, A. G., Burke, B. G., & Moffett, R. G. (1988). Outcomes of work-family conflict among married male and female professionals. *Journal of Management*, 14, 475-491.
- Beiser, M. (1974). Components and correlates of mental well being. *Journal of Health and Social Behavior*, 15, 320-327.
- Betz, N., & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice behavior. *Journal of Social and Clinical Psychology*, 4, 279-289.
- Beutell, N. J., & Wittig-Berman, U. (1999). Predictors of work-family conflict and

- satisfaction with family, job, career, and life. *Psychological Reports* 85, 893 – 903.
- Bonett, R. M., & Stickel, S. A. (1992). A psychometric analysis of the career attitude scale. *Measurement and Evaluation in Counseling and Development*, 25, 14-23.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.
- Brown, S. D., Lent, R. W., & Larkin, K. C. (1989). Self-efficacy as a moderator of scholastic aptitude-academic performance relationships. *Journal of Vocational Behavior*, 35, 64-75.
- Burke, R. J., Weir, T., & DuWors, R. E. (1980). Work demands on administrators and spouse well-being. *Human Relations*, 33, 253-278.
- Cahir, N., & Morris, R. (1991). The psychology student stress questionnaire. *Journal of Clinical Psychology*, 47, 414-417.
- Chamberlain, K. (1988). On the structure of well-being. *Social Indicators Research*, 20, 581-604.
- Cinamon, G. R. (2003). *Work-family conflict self-efficacy and career plans of young adults*. In press.
- Clark, E. J., & Rieker, P. P. (1986). Gender differences in relationships and stress of medical and law students. *Journal of Medical Education*, 61, 32-40.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.
- Cook, E. P. (1993). The gendered context of life: Implications for women's and men's career-life plans. *The Career Development Quarterly*, 41, 227-237.

- Cooke, R. A., & Rousseau, D. M. (1984). Stress and strain from family roles and work-role expectations. *Journal of Applied Psychology, 69*, 252-260.
- Costa, P. T., & McCrae, R. R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of Personality Disorders, 6*, 343-359.
- Costa, P. T., & McCrae, R. R. (1995). Primary traits of Eysenck's p-e-n system: Three- and five-factor solutions. *Journal of Personality and Social Psychology, 69*, 308-317.
- Crosby, F. J., & Jaskar, K. L. (1993). Women and men at home and at work: Realities and illusions. In S. Oskamp & M. Costanzo (Eds.), *Gender issues in contemporary society* (pp. 143-171). Newbury Park: Sage Publications.
- Cutrona, C. E., & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones, & D. Perlman (Eds.). *Advances in personal relationships, 1*, 37-67.
- DeHaes, J. C., Pennink, B. J. W., & Welvaart, K. (1987). The distinction between affect and cognition. *Social Indicators Research, 19*, 367-378.
- DeNeve, K. M. (1999). Happy as an extraverted clam? The role of personality for subjective well-being. *Current Directions in Psychological Science, 8*, 141-144.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.
- Diener, E. (1996). Traits can be powerful, but are not enough: Lessons from subjective well-being. *Journal of Research in Personality, 30*, 389-399.

- Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology, 47*, 1105-1117.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffen, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75.
- Diener, E., Lucas, R. E., & Oishi, S. (2002). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 63-73). Oxford: Oxford University Press.
- Diener, E. & Larsen, R. J. (1993). The experience of emotional well-being. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp.405-415). New York: Guilford Press.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213-229). New York: Russell Sage Foundation.
- Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*, 276-302.
- Dukstein, R. D., & O'Brien, K. M. (1996). *The contribution of multiple role self-efficacy and gender role attitudes to women's career development*. Working Paper.
- Edwards, R. (1993). *Mature women students: Separating or connecting family and education*. Washington D.C.: Taylor & Frances.
- Eysenck, S. B. G., Eysenck, H. J., & Barrett (1985). A revised version of the psychoticism scale. *Personality and Individual Differences, 6*, 21-29.
- Fassinger, R. E. (2000). Gender and sexuality in human development: Implications for

- prevention and advocacy in counseling psychology. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (3rd ed.) (pp. 346-378). New York: Wiley.
- George, M. M. (1991). State or trait: Effects of positive mood on prosocial behaviors at work. *Journal of Applied Psychology, 76*, 299-307.
- George, J., & Jones, G. (1996). The experience of work and turnover intentions: Interactive effects of value attainment, job satisfaction and positive mood. *Journal of Applied Psychology, 81*, 318-325.
- Gilbert, L. A. (1992). Gender and counseling psychology: Current knowledge and directions for research and social action. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (2nd ed.) (pp. 383-416). New York: Wiley.
- Googins, B., & Burden, D. (1987). Vulnerability of working parents: Balancing work and home roles. *Social Work, 32*, 295-300.
- Gorsuch, R. L. (1997). Exploratory factor analysis: Its role in item analysis. *Journal of Personality Assessment, 68*, 532-560.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review, 10*, 76-88.
- Greenhaus, J. H., & Parasuraman, S. (1993). Job performance attributions and career advancement prospects: An examination of gender and race effects. *Organizational Behavior and Human Decision Processes, 55*, 273-297.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. *Academy of Management Journal, 33*, 64-86.

- Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology, 76*, 560-568.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159-170.
- Headey, B., & Wearing, A. (1992). *Understanding happiness: A theory of subjective well-being*. Melbourne: Longman Chesire.
- Heins, M., Fahey, S. N., & Leiden, L. I. (1984). Perceived stress in medical, law, and graduate students. *Journal of Medical Education, 59*, 169-179.
- Hepner, P. P., Kivlighan, D. M., Wampold, B. E. (1999). *Research design in counseling*. Belmont, CA: Brooks/Cole – Wadsworth.
- Hockey, J. (1994). New territory: Problems of adjusting to the first year of a social science Ph.D. *Studies in Higher Education, 19*, 177-190.
- Hodgson, C. S., & Simoni, J. M. (1995). Graduate student academic and psychological functioning. *Journal of College Student Development, 36*, 244-253.
- Home, A. M. (1998). Predicting role conflict, overload and contagion in adult women university students with families and jobs. *Adult Education Quarterly, 48*, 85-98.
- House, J. S. (1981). *Work Stress and Social Support*. Reading, MA: Addison-Wellesley.
- Hudson, S. A., & O'Regan, J. (1994). Stress and the graduate psychology student. *Journal of Clinical Psychology, 50*, 973-977.
- Judge, T. A., Boudreau, J. W., & Bretz, R. D. (1994). Job and life attitudes of male executives. *Journal of Applied Psychology, 79*, 767-782.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and

- job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87, 530-541.
- Kanfer, R., & Zeiss, A. M. (1983). Depression, interpersonal standard-setting, and judgments of self-efficacy. *Journal of Abnormal Psychology*, 92, 319-329.
- Kirk, C. F., & Dorfman, L. T. (1983). Satisfaction and role strain among middle-age and older reentry women students. *Educational Gerontology*, 9, 15-29.
- Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family, and interrole conflict: A construct validation study. *Organizational, Behavior, and Human Performance*, 32, 198-215.
- Kossek, E. F., & Ozeki, C. (1998). Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *Journal of Applied Psychology*, 83, 139-149.
- Kuh, G. D., & Thomas, M. L. (1983). The use of adult development theory with graduate students. *Journal of College Student Personnel*, 24, 12-19.
- Lefcourt, L. A., & Harmon, L. W. (1993, August). *Self efficacy expectations for role management (SEERM): Measure development*. Paper presented at the 101st Annual Convention of the American Psychological Association, Toronto, Canada.
- Lefcourt, L. A. (1995). *The self-efficacy expectations for role management measure (SEERM) and its relationship with self-concept constructs and efficacy sources for career women*. Unpublished doctoral dissertation, University of Illinois, Urbana-Champaign.
- Lefcourt, L. A., & Harmon, L. W. (1995). *Self-efficacy expectations for role management measure (SEERM) for career women: Validity study*. Unpublished manuscript.

- Lent, R. W., & Brown, S. D. (1996). Social cognitive approach to career development: An overview. *The Career Development Quarterly, 44*, 310-321.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior, 45*, 79-122.
- Lent, R. W., Lopez, F. G., & Bieschke, K. J. (1991). Mathematics self-efficacy: Sources and relation to science-based career choice. *Journal of Counseling Psychology, 38*, 424-430.
- Lent, R. W., Lopez, F. G., Brown, S. D., & Gore, P. A. (1996). Latent structure of the sources of mathematics self-efficacy. *Journal of Vocational Behavior, 49*, 292-308.
- Lopez, F. G., Lent, R. W., Brown, S. D., & Gore, P. A. (1997). Role of social-cognitive expectations in high school students' mathematics-related interest and performance. *Journal of Counseling Psychology, 44*, 44-52.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616-628.
- Lucas, R., & Fujita, F. (2000). Factors influencing the relation between extraversion and pleasant affect. *Journal of Personality and Social Psychology, 79*, 1039-1056.
- Major, B., Cozzarelli, C., Sciacchitano, A. M., Cooper, M. L., Testa, M., & Mueller, P. M. (1990). Perceived social support, self-efficacy, and adjustment to abortion. *Journal of Personality and Social Psychology, 59*, 452-463.
- Mallinckrodt, B., & Leong, F. T. (1992). Social support in academic programs and

- family environments: Sex differences and role conflicts for graduate students. *Journal of Counseling and Development, 70*, 716-724.
- Mallinckrodt, B., Leong, F. T., & Kralj, M. M. (1989). Sex differences in graduate student life: Change, stress and stress symptoms. *Journal of College Student Development, 30*, 332-338.
- McBride, A. B. (1990). Mental health effects of women's multiple roles. *American Psychologist, 45*, 381-384.
- McCrae, R. R., & Costa, P. T. (1991). The full five-factor model and well-being. *Bulletin of Personality and Social Psychology, 17*, 227-232.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology, 74*, 494-512.
- Morris, A. H. (1981). Careers: Hers/his/theirs. *Woman Engineer, 2*, 91-96.
- Munir, S. S., & Jackson, D. W. (1997). Social support, need for support, and anxiety among women graduate students. *Psychological Reports, 80*, 383-386.
- Munson, C. E. (1984). Stress among graduate social work students: An empirical study. *Journal of Education for Social Work, 20*, 20-29.
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology, 81*, 400-410.
- Quinn, R., & Staine, G. (1979). *Quality of Employment Survey*. Ann Arbor, MI: Institute for Social Research.
- Ozer, E. M., & Bandura, A. (1990). Mechanisms governing empowerment effects: A

- self-efficacy analysis. *Journal of Personality and Social Psychology*, 58, 472-486.
- Parasuraman, S., Greenhaus, J. H., & Granrose, C. S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organizational Behavior*, 13, 339-356.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5, 164-172.
- Pavot, W., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the convergence of well-being measures. *Journal of Personality Assessment*, 57, 149-161.
- Perrewe, P. L., & Hochwarter, W. A., & Kiewitz, C. (1999). Value attainment: An explanation for the negative effects of work-family conflict on job and life satisfaction. *Journal of Occupational Health Psychology*, 4, 318-326.
- Phillips, S. D., & Imhoff, A. R. (1997). Women and career development: A decade of research. *Annual Review of Psychology*, 48, 31-59.
- Rice, R. W., Frone, M. R., & McFarlin, D. B. (1992). Work-nonwork conflict and the perceived quality of life. *Journal of Organizational Behavior*, 13, 155-168.
- Robbins, S., & Kliewer, W. (2000). Advances in theory and research on subjective well-being. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (3rd ed.) (pp. 310-345). New York: Wiley.
- Rosenbaum, M., & Cohen, E. (1999). Equalitarian marriages, spousal support, resourcefulness, and psychological distress among Israeli working women. *Journal of Vocational Behavior*, 54, 102-113.

- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141-166.
- Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: John Wiley & Sons, Inc.
- Sarason, I. G., Sarason, B. R., & Pierce, G. R. (1990). Social support: The search for theory. *Journal of Social and Clinical Psychology*, 9, 133-147.
- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5, 475-492.
- Solberg, V. S., & Villarreal, P. (1997). Examination of self-efficacy, social support, and stress as predictors of psychological and physical distress among Hispanic college students. *Hispanic Journal of Behavioral Sciences*, 19, 182-201.
- Staines, G. L., Pottick, K. J., & Fudge, D. A. (1986). Wives' employment and husbands; attitudes toward work and life. *Journal of Applied Psychology*, 71, 118-128.
- Stickel, S. A., & Bonett, R. M. (1991). Gender differences in career self-efficacy: Combining a career with home and family. *Journal of College Student Development*, 32, 297-301.
- Suchet, M., & Barling, J. (1986). Employed mothers: Interrole conflict, spouse support and marital functioning. *Journal of Occupational Behaviour*, 7, 167-178.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). Boston: Allyn & Bacon.
- Tellegen, A., Lykken, D. T., Bouchard, T. J., Wilcox, K. J., Segal, N. L., & Rich, S.

- (1988). Personality similarity in twins reared apart and together. *Journal of Personality and Social Psychology*, 54, 1031-1039.
- Thompson, L., & Walker, A. J. (1989). Gender in families: Women and men in marriage, work, and parenthood. *Journal of Marriage and the Family*, 51, 845-871.
- Tracey (2000). Issues in the analysis and interpretation of quantitative data: Deinstitutionalization of the null hypothesis test. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (3rd ed.) (pp. 177-198). New York: Wiley.
- Wallston, R. S., Alagna, S. W., DeVellis, B. M., & DeVellis, R. E. (1983). Social supports and physical health. *Health Psychology*, 2, 367-391.
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience negative affective states. *Psychological Bulletin*, 96, 465-490.
- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. Johnson, & S. Briggs (Eds.), *Handbook of personality psychology* (pp. 767-793). San Diego: Academic Press.
- Weitzman, L. M., & Fitzgerald, L. F. (1996). The development and initial validation of Scales to assess attitudes toward multiple role planning. *Journal of Career Assessment*, 4, 269-284.
- Wethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. *Journal of Health and Social Behavior*, 27, 78-89.
- Wiley, D. L. (1987). The relationship between work/nonwork role conflict and

job-related outcomes: Some unanticipated findings. *Journal of Management*, 13, 467-472.

Younes, M. N., & Asay, S. M. (1998). Resilient women: How female graduate students negotiate their multiple roles. *College Student Journal*, 32, 451-463.