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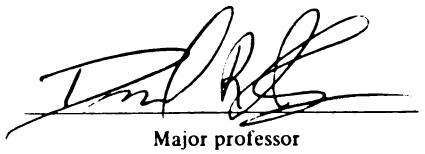

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FAMILY INTERFERENCE WITH WORK IN SPECIAL NEEDS CAREGIVERS

By

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ABSTRACT

FAMILY INTERFERENCE WITH WORK IN SPECIAL NEEDS CAREGIVERS

By

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It has been demonstrated in the literature that the role of being a caregiver affects the amount of family interference with work (FIW) a person experiences, which in turn affects the amount of life satisfaction and job satisfaction that a person experiences. This research will investigate the effects of caregiving status on the FIW-job/life satisfaction relationships and work withdrawal behaviors. This study sampled 119 caregivers, 98 of whom were employed at a large midwestern university. In order to capture an acceptable amount of variance in caregiving, 21 of the caregivers were recruited through agencies that provide support for people who care for chronically ill loved ones. The proposed model predicts that special needs caregiving, defined as caregiving that involves unique caregiving behaviors as well as large time demands, moderates the relationship between FIW and job/life satisfaction. The model also lays out the mediating processes in this relationship. In addition, the model predicts that those who are special needs caregivers will exhibit more withdrawal behaviors than those who are not. In general, only the main effects proposed in the model are supported. The only supported hypotheses are the are the negative relationships between FIW and life satisfaction and FIW and job satisfaction, the positive relationship between FIW and work withdrawal, and the positive relationship between special needs caregiving and the experience of work as an escape. However, due to low response rates and low power, it is likely that even if an effect was present, this study would not have been able to detect it.

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INTRODUCTION

To state the obvious, work and non-work activities encompass the whole of adult life. Many people spend 20, 40, or even 60 hours per week at work. Employees' work life is often affected by their non-work life. They often think of their families while they are at work, they may receive phone calls from home while they are at work, and they sometimes have to leave work early to pick up their car from the shop. In the same way, employees' non-work life is often affected by their work life, whether it be because of the schedule constraints that work places on non-work life, because employees bring work home that they do not finish during the day, or because employees are distracted at home by thoughts of what they need to do at work (Staines & Pleck, 1984; Zedeck, 1992). Work life and non-work life, or particularly family life, often conflict. Work-family conflict has been shown to negatively impact job satisfaction and life satisfaction (Kossek & Ozeki, 1998). Work and non-work activities are important to people (Andrews & Withey, 1976), their domains often overlap (Zedeck, 1992), and there are important consequences when they conflict.

The Nature of Work and Caregiving Responsibilities

The largest part of non-work life for many people is their family. Many employees provide a great deal of care for their families, and their families may consume the majority of the non-work waking hours. Employees' families often depend on them for daily care, financial support, and emotional support. Often, employees must provide basic daily care for their children, and they nurture them towards personal growth. There is a tension here; employees' families need financial support, which involves time spent by the employee at work, and employees' families also need emotional nurturance, which

involves time spent by the employee at home. Because of these things, the caregiver role can require a lot of time and energy from the employee. The work role can help the employee provide some of this care through salary, health benefits, and family-related employee assistance programs (Thomas & Ganster, 1995).

One factor that is increasing the non-work demands on employed caregivers is aging parents. People of the "Baby-Boom Generation" are reaching their fifties and sixties, and as they do, many must provide care for their elderly parents, both in the form of financial assistance and in the form of assistance with the basic activities of daily life (Coward, Horne, & Dwyer, 1992). Thus, many caregivers, referred to as the "Sandwich Generation," are feeling pressure from both sides: pressure to care for their children, and pressure to care for their aging parents (Buffardi, Smith, O'Brien, & Erdwins, 1999; Stephens & Townsend, 1997). This is an example of a greater-than-normal caregiving burden. Caregiving can occur in many forms. The form that will be discussed here will be referred to as special needs caregiving and will be defined in more detail below.

Special Needs Caregiving

Before developing the hypotheses, the definition of special needs caregiving must be differentiated from what is meant by caregiving in general. The current literature does not address special needs caregiving specifically, but it describes situations that are similar to what this research aims to explore. For example, Kinney and Stephens (1989) focus on primary caregivers who provide care to family members diagnosed with probable Alzheimer's disease. Marks (1998) defines the caregivers in her study as those who assume the role of caring for a frail or disabled family member or friend, and she indicates that these caregivers experience large amounts of stress and burden. Both of

these studies address providing care for a family member whose needs are greater than those of normal, healthy children or adults. The case of special needs caregiving in the present study is analogous to the caregivers in these studies, and the specific definition of special needs caregivers used in this research will be outlined below.

Special needs caregiving, as defined here, is composed of two conditions. First, special needs caregiving involves an extraordinary time demand and may disrupt the caregiver's daily routines. In most cases, special needs caregivers experience higher demands on their time than others because of the activities involved in caring for ones with special needs, such as taking loved ones to frequent doctor's appointments and providing assistance with bathing, toileting and eating. Thus, the role of special needs caregiving may disrupt the caregiver's daily routines. Quittner, Espelage, Opipari, Carter, Eid and Eigen (1998) found that this occurred in a sample of 33 couples, each of whom cared for a child with cystic fibrosis.

Second, the caregiving responsibility must involve behaviors that are out of the ordinary due to the nature of the care recipient's needs. More specifically, the caregivers must be providing care to the care recipients that healthy people of the same age would not need. For example, healthy two-year-old children cannot bathe themselves, so bathing a two-year-old child because he or she cannot would not be considered special needs caregiving. However, healthy sixty-year-old adults can bathe themselves, so providing needed bathing assistance to a sixty-year old adult would be considered special needs caregiving. The unique behaviors associated with special needs caregiving can also include illness- or disability-specific assistance, such as assisting with insulin shots and administering oxygen.

In sum, the research that will be described here will consider special needs caregiving as a special form of caregiving. Special needs caregiving involves an extraordinary time demand with possible disruptions of daily routines and unique types of caregiver behaviors because the problem is unusual.

Purpose

The purpose of this research is to investigate the work-related reactions and experiences of special needs caregivers. This study will focus on those who are employed outside the home but are also providing care to a person with special needs. It will be argued that caring for persons with special needs affects the way that the caregiver experiences the conflict between the work role and the family role and that this effect is different from other forms of family time demands. It is predicted that special needs caregiving influences the effects of family interference with work on job and life satisfaction as well as the amount of work withdrawal the caregiver experiences.

Overview of Thesis

As discussed earlier, the special needs caregiving role comes with heavy time demands as well as unique responsibilities. Because non-work life and work life intersect, it is assumed that the caregiving role will influence the caregiver's work life. At times, the caregiving role and the work role will come into conflict. This work-family conflict has been the subject of research over the years. In the next part of this thesis, the literature on work and family conflict will be reviewed to provide a background for the general conditions in which special needs caregiving as it relates to work is embedded. After addressing the general nature of the work-family interface and specifically, work-family conflict, the focus will turn to the research that has been done related to the type of

conflict likely to exist for working persons who serve as the primary caregivers for family members with special needs: family interference with work (FIW). From there, I will look at the antecedents and consequences of FIW due to the demands of caring for special needs persons. In addressing the latter, hypotheses will be presented that relate to how the special needs caregiving is predicted to impact aspects of work and non-work life in ways that are different from the demands created by more general forms of caregiving or by other sources of work-family conflict. This will conclude the introduction to be followed by the method and data analytic plan.

Work-Family Conflict

The Nature of the Work-Family Interface

Zedeck and Mosier (1990) describe five models of the work-family interface. The first, compensation theory, postulates an inverse relationship between work and family experiences. Thus, according to the position, when experiences in one realm are positive, experiences in the other realm will be negative, and vice versa (e.g., Greenglass & Burke, 1988). The second model, segmentation, states that there is no conflict between work and family; work and family environments are totally separate entities, and one's functioning in one environment bears no effect on one's functioning in the other environment (Lambert, 1990). Instrumental theory hypothesizes that a person obtains things in one environment by means of the other. That is, work outcomes lead to family outcomes, and vice versa (Evans & Bartolome, 1984). For example, money earned at work could be used to pay for a family vacation, and relaxation provided by spending time with the family could lead to better productivity at work. Conflict theory postulates that success or satisfaction in one environment can only be achieved by making sacrifices in the other

environment (Crosby, 1984). Finally, spillover theory states that there is a similarity in the tenor of experiences at home and the tenor of experiences at work, such that happiness in the home environment leads to happiness in the work environment, and happiness in the work environment leads to happiness in the home environment (Zedeck & Mosier, 1990). Spillover can be positive or negative; happiness at work could lead to happiness at home, or the negative aspects of work could have an adverse effect on the family (Barling, 1990). Most of the research in work-family conflict has focused on the spillover theory (Zedeck & Mosier, 1990).

Researchers have not been very successful at finding support for most of these models of the family-work interface. Pond and Green (1983) unsuccessfully searched for support for compensation theory in a sample of 57 married couples with non-working wives and 61 couples with working wives. London, Crandall and Seals (1977) suggested that their finding of no correlation between work satisfaction and leisure satisfaction in their study of 1297 American working adults suggested that the two realms are independent, and thus argued for segmentation theory, but as with any null finding, a number of alternative explanations for the data were plausible. For example, it is possible that the measures they used were not as reliable or valid as they should have been and thus failed to detect a relationship. The only people to date to study instrumental theory were Evans and Bartolome (1980). Their qualitative and descriptive study of study of 44 couples indicated that one sixth of them experienced instrumentation, but small sample sizes and the lack of quantitative rigor makes it difficult for us to make any definitive conclusions. Of all the models, spillover is most consistent with the data. Yet, the evidence for spillover theory has been mixed and suggests that it may operate differently

for different people. Wallace (1997) found that stress caused by the number of hours worked did not translate into spillover for a sample of 512 male and female members of the legal profession. Burley (1991) found in a sample of 277 partners in a dual-career couple relationship that stress caused by time spent in family work was associated with higher spillover for women, but not for men. Barnett and Marshall (1992) studied 403 women who were licensed practical nurses or social workers and did not find any negative-spillover effects from job to parenting, but they did find positive spillover. Higgins and Duxbury (1992) found in a sample of 136 dual-career couples that men in a dual-career relationship experience significant negative spillover such that negative experiences at work lead to negative experiences at home.

In conclusion, most of the work on the models of the work-family interface is conceptual, and where empirical data exists, it does not strongly and consistently support any one theory. That is, there is little support for a position that the relationship between work and the family is captured within any one of these models. The most reasonable position is that there are elements of two of them that may be important to the proposed study. First, the literature on spillover is generally supportive of the idea that job satisfaction can affect the satisfaction that one feels with his/her life in general (Barnett & Marshall, 1992; Higgins & Duxbury, 1992). Thus, it would seem reasonable that a person could experience high life satisfaction due to spillover from satisfaction at the job, even if he/she experienced stressors at home (e.g., a special needs caregiving role). However, even with these data, alternative explanations exist. In particular, the spillover could arise from dispositional factors. People who are generally more happy in everything experience high levels of both job and life satisfaction (Judge & Watanabe, 1993).

Nevertheless, the possibility of a spillover process remains and is relevant to the study proposed here. Second, the conflict model has some bearing on this study due to the extremity of the demand that caring for special needs persons can create in the family domain. As people push themselves to the limit in one realm, they may feel that they are not reaching their goals in another realm. Since the time and energy that a person has remains more or less constant, when he/she has to give more to one aspect of life, other aspects of life may struggle.

The Nature of Work-Family Conflict

Whereas Zedeck and others addressed the work family interface, others have looked at the type of conflict that is generated when the two domains interfere with each other. Work-family conflict occurs when the work role and the family role interfere with each other (Adams & Jex, 1999). According to Greenhaus and Beutell (1985), work-family conflict is caused by three types of conflict: time-based conflict, strain-based conflict, and behavior-based conflict. Time-based conflict occurs when one does not have time to fulfill all of his/her responsibilities in the work domain as well as those in the family domain (Adams & Jex, 1999). Time is a limited resource (Frone, Yardley, & Markel, 1997). At some point, the more time devoted to one role, the less time he/she has to devote to the other role. Time commitments, therefore, are a direct cause of work-family conflict (Greenhaus & Beutell, 1985; Parasuraman, Purohit, Godshalk, & Beutell, 1996).

The literature supports the relationship between time pressures and work-family conflict. Gutek, Searle, and Klepa (1991) found in a sample of 423 psychologists as well as in a sample of 209 senior managers that time spent in family work (i.e., childcare,

housework, shopping, etc.) as well as time spent in paid work were positively related to work-family conflict. Bartolome and Evans (1979) found that time pressure can cause people to be preoccupied with one role while physically acting in the other role; this is an indication of the tension that individuals can feel between their work role and their family roles. In a study of 522 working adults, Adams and Jex (1999) found that three types of time management behaviors effectively reduced work-family conflict both directly, through better use of time and the reduction of time pressures, and indirectly, through increasing peoples' perceptions of control over time.

Strain-based conflict occurs when strain in one role affects performance in the other role (Greenhaus & Beutell, 1985). Thomas and Ganster (1995) defined strain as the psychological, physiological, and behavioral changes that occur when people are continually exposed to stressors. Strain results from perceptions of challenges in the environment that cause harm or difficulty, and these perceptions affect wellness-outcomes for the person. Characteristics of one's role can cause strain or distress in an individual, and this strain in one role prevents the individual's ability or willingness to fulfill responsibilities in the other role (Frone, Yardley, & Markel, 1997). Thomas and Ganster (1995), using a sample of 398 employees from health care facilities in Nebraska, found that employees, who work for organizations with family-supportive elements (e.g., flexible scheduling, supportive supervisors) that help reduce the strain of balancing work and family life, experience lower levels of work-family conflict than those who work for organizations without these strain-reducing family-supportive elements. Frone, Yardley and Markel (1997) found that work distress and family distress, both of which can lead to

strain, contributed to work-family conflict in a sample of 372 working adults who had spouses and/or children.

Behavior-based conflict occurs when the expectations for specific types of behavior in one role contrast or are inconsistent in a negative way with the expectations for behavior in another role (Greenhaus & Beutell, 1985). For example, a woman might be expected to be self-reliant, powerful, and assertive at work but gentle, nurturing and loving at home. If she cannot adjust her behavior easily between these two roles, she is likely to feel behavior-based conflict. Bartolome (1972) found that many young male managers felt conflict caused by the differing value systems and behavior expectations of work and the family. Beyond the Bartolome study, little other data have addressed this form of work-family conflict, to my knowledge.

Of the three sources of conflict, time-based conflict appears to be the most likely to be experienced by special needs caregiver. Special needs caregivers provide large amounts of assistance to those for whom they care. Special needs caregiving is also consistent with strain-based conflict. Having to care for and worry about a loved one with a chronic illness while trying to fulfill one's job responsibilities causes stress in one's life (Stephens, Franks, & Atienza, 1997), and repeated exposure to that stress can lead to strain (Thomas & Ganster, 1995). Special needs caregivers often experience difficulties in their lives related to their caregiving role, and these difficulties can have psychological or physiological outcomes over time (Lee, 1997). While not ruling out behavioral conflict as a possible form of work-family conflict for special needs caregivers, it does not appear to be a very good fit, theoretically, to the problem. The acts of giving special care to

others off the job should not be at odds with work-role behaviors from a value perspective.

The Directional Nature of Work-Family Conflict

Two Domains of Work-Family Conflict

Work-family conflict sometimes is approached directionally, that is, the conflict of work with the family (work interference with family, or WIF) or vice versa (family interference with work, or FIW) (Gutek, Searle, & Klepa, 1991; Perrewe, Hochwarter, & Kiewitz, 1999). WIF involves the interference of the work role with the family role, and FIW involves the interference of the family role with the work role (Gutek, Searle, & Klepa, 1991). Although many studies conceptualize FIW and WIF as part of a global, two-directional construct (Frone, Russell, & Cooper, 1992; Gutek, Searle, & Klepa, 1991), recent research conceptualizes the two as distinct, yet related constructs (O'Driscoll, Ilgen, & Hildreth, 1992; Kossek & Ozeki, 1998; Perrewe, Hochwarter, & Kiewitz, 1999).

WIF and FIW are likely to impact job satisfaction and life satisfaction in different ways, and empirical findings regarding these differences will be discussed in more detail later. In most of the work-family literature, the source of the conflict is work (Frone, Russell, & Cooper, 1995; e.g., Zedeck, 1992). Yet, in some of the literature, FIW is the main construct of interest. Given my interest in the special needs caregiver, FIW is the direction of the conflict in which I am most interested. Therefore I will limit my discussion to this form of conflict.

Sources of Family Interference With Work

Marks (1998) investigated the effect of caring for the disabled on FIW. She found that a sample of 5782 caregivers of disabled spouses, children, parents and other family members experienced more family-stress spillover to work (i.e., FIW) than non-caregivers, and that men who were caring for their spouses experienced it more than women. Stephens, Franks, and Atienza (1997) measured spillover from work to home and spillover from home to work and found that some employed adult caregivers of elderly parents experienced positive spillover from the caregiver role to the employment role, that is, positive feelings from the caregiver role carried over into the employment role. Likewise, negative feelings also appeared to generalize from home to work. The spillover of feelings from positive experiences at work to home and from positive experiences at home to work was positively related to the caregivers' well being, and the negative spillover of feelings was negatively related to the caregivers well being. Experiences in the family setting can affect experiences in the work setting; thus, the difficulties or benefits experienced by people because of their caregiving role can affect their work role. However, the information in this study was all gathered via self-report and thus is subject to response-response bias, making it likely that the measures of home life and work life will be related even if the constructs are not. Taking this into account, we must realize that although their arguments seem reasonable, it is possible that the results that Stephens et al. (1997) found are merely an artifact of their methodology.

Eagle, Icenogle, Maes, and Miles (1998) classified people according to marital status, working or nonworking spouse or partner, and the presence of children. In this study, they found that divorced women with children, who experienced large amounts of

time pressure because of their family demands, experienced more FIW than men, those without children, or those who were not divorced. When work-family conflict is differentiated by direction, it is clear that FIW occurs and that time pressure, stress, and other effects originating at home impact the work environment.

Outcomes of Work-Family Conflict

Earlier, the case was made that FIW and WIF are two separate forms of work-family conflict. However, much of the literature treats work-family conflict as an undifferentiated form of conflict and then relates that form to outcomes of the conflict. Thus, the discussion in this section will treat WIF and FIW separately when they are treated as such in the literature, but, because the differentiation is rarely made in the literature, the discussion will have to rely on a general work-family conflict construct for much of what is reported. Furthermore, caregiving status is rarely measured when conducting work-family conflict research; thus, the samples used may include people with no children, caregivers of healthy children, and special needs caregivers alike.

The three outcomes of work-family conflict that have been studied most frequently are job satisfaction, life satisfaction, and withdrawal. While withdrawal can occur in either the work setting or the family setting, this discussion will focus on withdrawal from work because that is the domain that has received attention from researchers. The literature regarding these outcomes will be discussed. Most of the literature is not focused on special needs caregiving, but I believe much of it is relevant to it. Thus, I will begin each section by reviewing the literature without reference to special needs caregiving and then end each section by raising the implications that this literature has to special needs caregiving.

Job Satisfaction

As previously mentioned, not all of the literature has made the distinction between WIF and FIW. Thus, in the following review of the literature, I will use the term "work-family conflict" when the authors did not differentiate between the two forms, and FIW and WIF when they did.

Many studies have exhibited a negative relationship between the general work-family conflict construct and job satisfaction. Netemeyer, Boles, and McMurrian (1996) tested the relationship between work-family conflict and job satisfaction for three different samples, including elementary and high school teachers and administrators, small business owners, and real estate sales employees, and found a significant negative relationship in each case. The work-family conflict-job satisfaction relationship has been observed internationally as well; Ahmad (1996) found the significant work-family conflict-job satisfaction relationship in a sample of female Malaysian researchers. Bacharach, Bamberger, and Conley (1991) found job satisfaction to be related to work-home conflict in two samples: one of 430 engineers, and another of 215 nurses. This study assumed that work-home conflict caused lower levels of job satisfaction, but this is an inappropriate conclusion because the data were correlational self-reports. Thompson and Blau (1993) found that the extent to which the work role interfered with the family role and the amount of incompatibility between the parent and work roles were significantly related to job satisfaction in a sample of 234 employees. Judge, Boudreau, and Bretz (1994) studied WIF; they found job satisfaction to be significantly and negatively related to WIF in a sample of 1388 male executives. This study asserted that this relationship was a causal one; WIF caused people to experienced lower levels of job satisfaction. Again, however,

since the data were correlational self-reports, this assertion was inappropriate. A meta-analysis of 50 studies verified the work-family conflict-job satisfaction relationship with a weighted mean correlation of -.31, regardless of the type of measured used (general construct of work-family conflict, FIW, or WIF; Kossek & Ozeki, 1998).

Researchers have also demonstrated a relationship between job satisfaction and the way that parents carry out their caregiving activities. In a study of 195 fathers of elementary school children, Stewart and Barling (1996) found that lower levels of job satisfaction were related to significantly higher levels of parental rejection of their child's demands for time (e.g., ignoring the child when the child wanted the father's attention). It is likely that parents who reject their children's demand for time will spend less time with their children than those who do not, and they are also likely to experience less time-based FIW. Thus, it seems that the correlation between FIW and job satisfaction should be higher for those who are special needs caregivers in this category than those who are not. However, this situation is not as clear as Stewart and Barling make it out to be. Hulin and Judge (2001) indicate that job satisfaction is dispositional, as are social attitudes; those who experience dispositionally low job satisfaction will also be likely to experience negative social attitudes. These attitudes may extend to how people feel about their personal relationships with others, even their children. Thus, Stewart and Barling may be capturing disposition rather than behavior-attitude links.

Perrewe, Hochwarter, and Kiewitz (1999) suggested that value attainment mediates the relationship between WIF and FIW and job satisfaction. Specifically, they argued that experiencing WIF or FIW reduces one's value attainment, which in turn, lowers job satisfaction. A person compares his/her life activities to the standards that

he/she has for his/her life (e.g. success or virtue) and if the life activities match the standards, then the person has reached value attainment (Tatarkiewicz, 1976). James and James (1989) stated that values determine the meaning that work and organizational experiences have for people. If work is instrumental in reaching these values, then job satisfaction is higher. Conversely, if work is not instrumental in reaching these values, then job satisfaction is lower (Locke, 1976). Perrewe, Hochwarter, and Kiewitz (1999) tested value attainment as a mediator. In a sample of 270 hotel managers, they found that value attainment fully mediated the relationship between work-family conflict and job satisfaction.

Some researchers have explored FIW and WIF separately as each relates to job satisfaction. The results have generally indicated that the FIW relationship is the stronger of the two. Perrewe, Hochwarter, and Kiewitz (1999) studied a sample of hotel managers and found that both WIF and FIW were negatively related to job satisfaction, but the FIW relationship is stronger than the WIF relationship when value attainment is entered into the equation as a mediator. They used Gutek, Searle, and Klepa's (1991) Work-Family Conflict Scale, which measured both WIF and FIW with four-item scales designed to measure perceptions of work interfering with family and family interfering with work. The internal consistency reliability estimates for WIF and FIW were .85 and .84, respectively. Adams and Jex (1999) found both constructs to be negatively related to job satisfaction in a sample of 572 working adults, and they also found the FIW-job satisfaction relationship to be the stronger of the two.

All of the research reported thus far was conducted in the context of various family demands ranging from none to normal to extreme. The case of a special needs

caregiver, however, involves extreme family demands in which the caregiver must provide unique, emotionally intensive, time-consuming care for his/her loved one. It is possible that the FIW-job satisfaction relationship may play out differently in this population.

Standards of Acceptability. One possible reason for the expectation of a different FIW-job satisfaction relationship for special needs caregivers is that the special needs caregiver may have lower standards of what is an acceptable number of work hassles in a job. It is likely that they arrive at these standards of acceptability by comparing their life outcomes to the work outcomes. Comparison levels have been the subject of research for many years. In the perception literature, Helson and Rohles (1959) found that people judged the same shade of gray to be darker when it was overlaid with black lines than when it was overlaid with white lines, indicating that one's judgment of color contrast is not independent; it depends on which colors surround it. Ilgen and Hamstra (1972) found a similar phenomenon in performance judgments. Using a sample of 150 male undergraduates, they found that participants' satisfaction with their performance was affected by the discrepancy between their expected performance and how they were told they performed more when they are told they perform high or low than at an average level. This indicates that the participants' satisfaction with performance was a function of the comparison of their expected performance and their reported performance as well as the comparison of their reported performance to some external performance standard.

Hulin (1969) studied 470 Canadian white-collar workers working in two different communities. He found that there was a significant positive relationship between people's satisfaction with the economic conditions (cost of living and cost of housing) in their

town and their satisfaction with their pay. The author argues that the workers use their contexts when making judgments about things; when judging whether they were satisfied with their pay, they compared the money they earned with the money that they spent to maintain their lifestyle in their towns. Those who were more satisfied with cost of maintaining their lifestyles in their towns were more satisfied with their pay. When making judgments about things, people often use their other experiences as a frame of reference.

Thus, when thinking about the problems they have at work, special needs caregivers may consider their life problems when making those judgments. Since their lives are likely to contain a large number of hassles (Kinney & Stephens, 1989) and they may have adapted to that level of hassle, they may have lower standards of acceptability for what they expect from their job (e.g., they will tolerate more job hassles, they will not expect as many benefits, etc.). It is likely that people who have lower standards of acceptability will experience less of an effect of FIW on job satisfaction because there are fewer qualifications that their jobs must meet in order for them to be satisfied.

Coworker social support. A second possible reason to expect that the FIW-job satisfaction relationship may be different for special needs caregivers than caregivers of healthy children is that special needs caregivers who are struggling with an extreme family demand may receive social support from their coworkers. Beehr and McGrath (1992) affirmed that meaningful social support can come from work sources. It usually takes the form of either emotional support (e.g., listening, compassion, empathy) or instrumental support (e.g., covering the caregiver's job tasks so he/she can attend a doctor's appointment with his/her loved one). Coworkers will likely be aware of a

person's status as a special needs caregiver. If they are, they may provide encouragement and a forum for expressing frustrations related to this role as well as instrumental help in fulfilling the responsibilities associated with either role. Since special needs caregivers are likely to experience more stressors than those who are not special needs caregivers, special needs caregivers are also likely to need, seek out, and receive more coworker social support. McCann, Russo, and Benjamin (1997) found in a sample of 159 lawyers that social support is related to higher levels of job satisfaction. Thus, it is likely that those who experience more coworker social support will experience less of a negative effect of FIW on job satisfaction.

Work as an escape. As previously discussed, special needs caregivers experience large amounts of emotional turmoil and stress (Marsh & Johnson, 1997). People who experience such large amounts of stress are likely to need to have a break from this stress. This phenomenon is not specifically explored in the literature, but it is analogous to what can be observed in the work environment when job stress is high. Della-Rocco, Comperatore, Caldwell, and Cruz (1999) studied air traffic controllers, a population of workers who are under extreme levels of stress. They found that those who had nap breaks during the workday performed better on a vigilance test because they had an opportunity to refresh themselves. Brody, Kleban, Johnsen, Hoffman, and Schoonver (1987) found that employed caregivers tend to experience less caregiver strain and better emotional health than caregivers who are not employed; thus, the employment role seems to provide relief from the strain of caregiving. Thus, it is likely that the job role can provide an escape from the stresses of the special needs caregiving role. Because work

can have these therapeutic effects, it is also likely that FIW will not affect job satisfaction as negatively for those who view work as more of an escape.

Life Satisfaction

Researchers have also found a negative relationship between life satisfaction and the general work-family conflict construct in many studies. Bedeian, Burke, and Moffett (1988) studied a sample of 423 male and 335 female accountants and found that work-family conflict was negatively and significantly associated with life satisfaction. Appropriate non-causal inferences were made in this study. International samples have yielded similar results. Richardsen, Burke, and Mikkelsen (1999) studied a sample of 191 professional and managerial women aged 24-55 years in Norway. Women experiencing high role conflict and work-family pressures also tended to experience low life satisfaction. Ahmad (1996) found a significant negative relationship between work-family conflict and life satisfaction in a sample of 82 female Malaysian researchers employed at research institutions. Judge, Boudreau, and Bretz (1994) studied FIW and WIF separately in relation to life satisfaction in a sample of 1388 male executives. They found that both constructs were significantly related to life satisfaction in the negative direction. However, they made inappropriate casual inferences; the data used were correlational self-reports. Kossek and Ozeki's (1998) meta-analysis of 50 studies confirmed the work-family conflict-life satisfaction relationship with a weighted mean correlation of -.36, regardless the measure of work-family conflict (as a general construct, as WIF, or as FIW).

Perrewe, Hochwarter, and Kiewitz's (1999) previously described theory also suggests that value attainment mediates the relationship between WIF and FIW and life

satisfaction. Again, they argued that experiencing WIF or FIW reduces one's value attainment, which in turn, lowers life satisfaction. In their study of 270 hotel managers, they found that value attainment partially mediates the relationship between WIF and life satisfaction, and it fully mediates the relationship between FIW and life satisfaction.

Some researchers have considered WIF and FIW separately in relation to life satisfaction, and many found that both WIF is more negatively related to life satisfaction than is FIW. Adams, King, and King (1996), in a sample of 163 working-adult students, found only WIF to be negatively related to life satisfaction. Perrewe, Hochwarter, and Kiewitz (1999), in their study of 270 hotel managers, found significant relationships between both WIF and FIW with life satisfaction. In summary, work-family conflict in general is negatively related to life satisfaction, and both WIF and FIW are as well.

Just as in the discussion of the literature on job satisfaction, the literature related to life satisfaction focuses on a variety of levels of family demands. When one considers the case of the special needs caregiver, the family demands are extreme. Since the family environment within which the FIW-life satisfaction relationships play out changes when special needs caregivers are considered, it is important to consider whether the relationships change as a result or whether they remain the same. It is expected that special needs caregivers will experience the FIW-life satisfaction relationship differently than caregivers of healthy children. Reasons for this expectation are discussed below.

Resilience. One factor that may account for the different FIW-life satisfaction relationship for special needs caregivers is resilience. Families who have to deal with a loved one with a chronic illness learn to adapt and change in constructive ways, and they have family resilience (Marsh & Johnson, 1997). Perlesz, Kinsella, and Crowe (1999)

report a similar resilience in families of people with traumatic brain injuries. Thus, it is likely that those who are special needs caregivers will have more resilience than those who are not. This resilience is a hardiness, toughness or resistance that minimizes the negative impacts of hardships on families. It may develop because families learn, adapt, grow and change because of the hardships that they face. This resilience sometimes even causes the chronic illness to be a positive influence on the family members. For instance, Marsh, Lefley, Evans-Rhodes, Ansell, and Doerzbacher (1996) found that families of mentally ill patients reported that they had stronger family commitments, an expanded base, increased compassion, and more personal resilience since their loved one was diagnosed. Thus, it is likely that people who experience this resiliency will experience the FIW-life satisfaction relationship differently than those who do not.

Affect. Another factor that may account for the different experience of the FIW-life satisfaction relationship that special needs caregivers have may be the affect associated with the role of caregiver. Caregivers often experience positive affect from their caregiving roles (Stephens, Franks, & Townsend, 1994). Even when the stress of the caregiver, mother and wife roles were accounted for, Stevens, Franks, and Atienza (1994) found that women caring for their aging and ill parents feel satisfaction in being a special needs caregiver that is related to well-being. Thus, it is likely that those who are special needs caregivers will experience more positive affect than those who are not. This positive affect and sense of well-being can contribute to life satisfaction (Diener, 1994). Thus, it is likely that people who experience more positive affect will experience a weaker relationship between FIW and life satisfaction than those who do not.

Work Withdrawal Behaviors

Withdrawal behaviors refer to a set of behaviors employees use in attempts to remove themselves from their jobs or avoid work tasks (Hanisch & Hulin, 1991). The general population tends to withdraw due to reduced job satisfaction and the perception that there are better job alternatives available (Mobley, 1977). The intent of the withdrawing person is usually to find another job (Mobley, 1977). Researchers have traditionally found withdrawal behaviors, including things like absenteeism, tardiness, and reluctance to do organizational citizenship behaviors to be positively related to work-family conflict in the general population (e.g., Gignac, Kelloway, & Gottlieb, 1996; Goff, Mount & Jamision, 1990).

Because FIW is partially time-based (Greenhaus & Beutell, 1985), employees who are caregivers may need to sacrifice time at work to tend to some aspect of their caregiving role. Gignac, Kelloway, and Gottlieb (1996) found that this is true. They studied 396 women and 316 men from eight different organizations and found that FIW is positively and significantly related to absenteeism for both women and men; many of those people may have been caregivers who were absent due to their caregiving responsibilities. Goff, Mount, and Jamison (1990) studied 62 users and 191 nonusers of an on-site company childcare center, and they found that work-family conflict was related to higher levels of absenteeism, and that use of an on-site childcare center did not reduce this absenteeism. Barling, MacEwen, Kelloway, and Higginbottom (1994) studied a sample of 141 university employees and found work-family conflict to be positively related to partial absenteeism, including coming to work late, leaving work early, and taking or making phone calls at work related to the caregiving role. Greenhaus,

Parasuraman, and Collins (2001) studied 135 male and 64 female Certified Public Accountants who were married or in a long-term relationship and had one or more children, and they found WIF to impact withdrawal intentions. The FIW-withdrawal behaviors relationship is also evident in the special needs caregiver population. In a sample of 67 employees of a financial institution, Lee (1997) found that caregivers of elderly parents were absent significantly more than those who did not care for their elderly parents.

When considering special needs caregivers, the reasons for withdrawal behaviors are different than those for the general population. It is likely that withdraw because they have to tend to caregiving responsibilities (Lee, 1997). The literature is unclear about the relationship between caregiver withdrawal and job satisfaction, but because these caregivers may have to attend to their caregiving roles during working hours, it is likely that the cause of absenteeism and tardiness for some is because the caregiving role sometimes requires immediate attention and not because the caregivers are unsatisfied with their jobs. Much of the literature focuses on job dissatisfaction as a source of work withdrawal (Hulin, Roznowski, & Hachiya, 1985). However, this is a different sort of a cause. The characteristics of the job are not likely to be the cause of withdrawal; the characteristics of the family are. The employee likely withdraws because their family demands are interfering with their work role, and they need to leave their work role for a while to deal with these pressing family demands.

Thus, the role of being a special needs caregiver affects aspects of a person's experiences such as job satisfaction, life satisfaction, and work withdrawal behavior.

These three outcomes flow directly out of the work-family conflict; many researchers have focused on these phenomena.

Model of Work-Related Outcomes for Special Needs Caregivers

Figure 1 below depicts the proposed model and the hypotheses that correspond to each linkage. To summarize what was stated earlier, job satisfaction is negatively related to FIW in the literature, but most of the studies have looked at a variety of levels of family demand. Special needs caregivers have an extreme family demand, so the relationship between FIW and job satisfaction for them may be different than it is for caregivers of healthy children. Because of the large amounts of stress from the family role as compared to the work role, coworker social support, and the escape from their stressful caregiving role that their jobs provide, it is likely the relationship between FIW and job satisfaction may be different based on the type of care that a person provides.

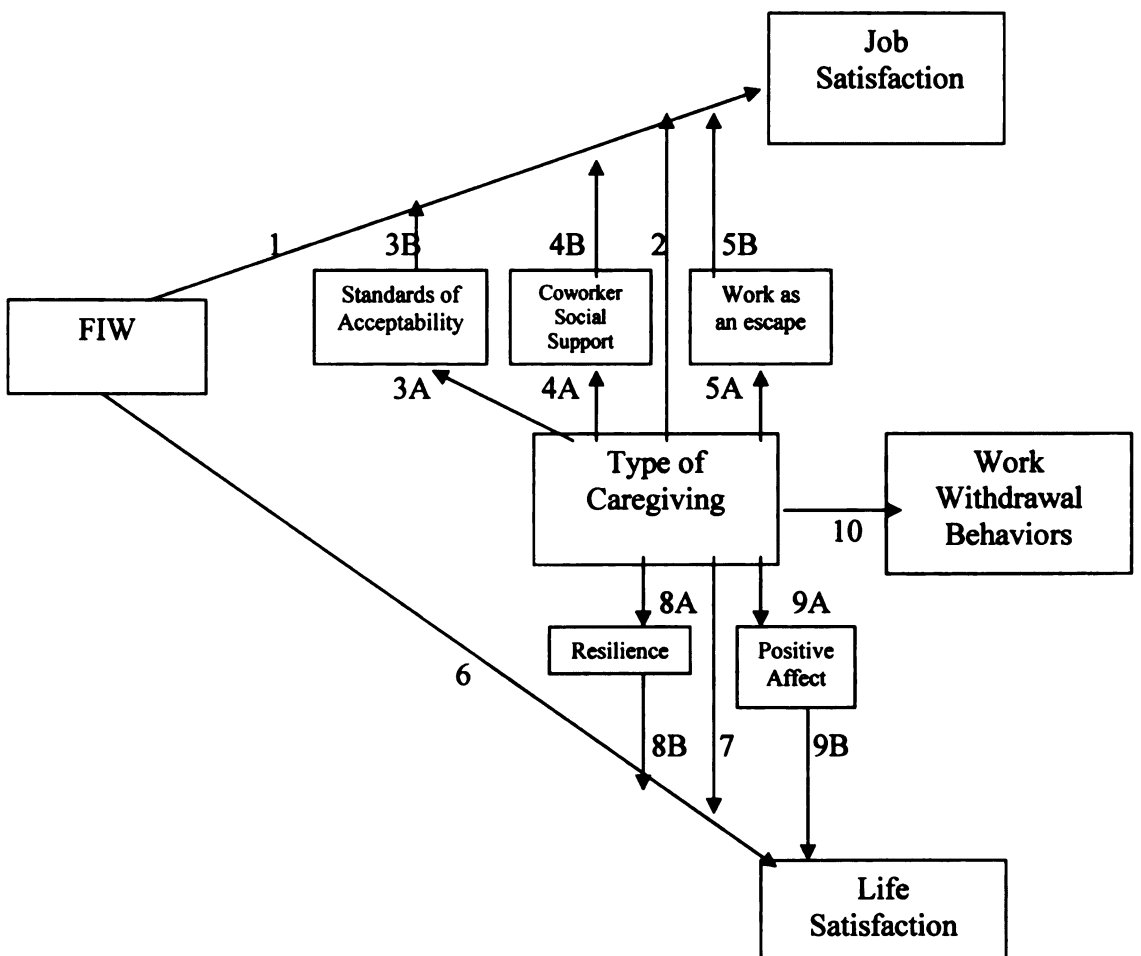

Figure 1. The proposed model with hypotheses labeled on linkages.

Hypotheses

Because these hypotheses are largely exploratory, they reflect *tendencies* that are expected to occur in the data.

Hypothesis 1

As FIW increases, job satisfaction decreases.

Hypothesis 2

FIW affects job satisfaction differently based on type of caregiving such as the negative relationship between FIW and job satisfaction is weaker for those who are special needs caregivers than those who are not.

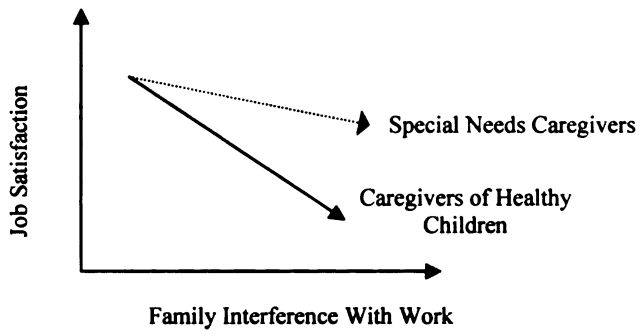

Figure 2. The proposed interaction between caregiving status and job satisfaction.

Hypothesis 3A

Type of caregiving affects the standards of acceptability such that those who are special needs caregivers have lower standards of acceptability than those who are not.

Hypothesis 3B

FIW affects job satisfaction differently based on how low a person's standard of what is an acceptable number of work hassles in a job such that the negative relationship between FIW and job satisfaction is weaker for those who have lower standards of acceptability.

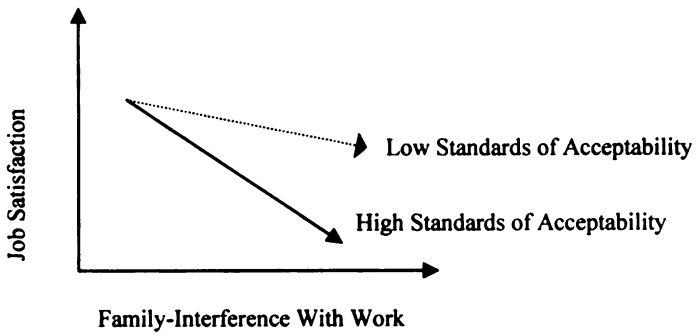

Figure 3. The proposed interaction between standards of acceptability and job satisfaction.

Hypothesis 4A

Type of caregiving affects coworker social support such that those who are special needs caregivers experience more coworker social support than those who are not.

Hypothesis 4B

FIW affects job satisfaction differently based on how much coworker social support a person experiences such that the negative relationship between FIW and job satisfaction is stronger for those who receive less coworker social support.

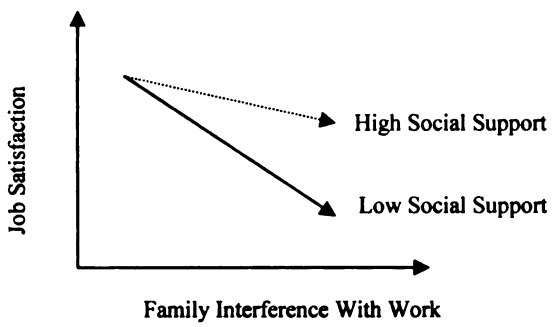

Figure 4. The proposed interaction between social support and job satisfaction.

Hypothesis 5A

Type of caregiving affects the experience of work as an escape such that those who are special needs caregivers are likely to view work as an escape from troubles in their non-work life.

Hypothesis 5B

FIW affects job satisfaction differently based on to what extent a person views work as an escape such that the negative relationship between FIW and job satisfaction will be weaker for those who view work as an escape more.

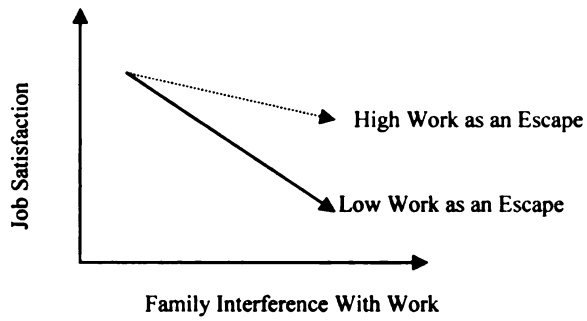

Figure 5. The proposed interaction between work as an escape and job satisfaction.

The literature has also found that FIW is negatively related to life satisfaction. Again, however, most of these studies occurred in a variety of family demands, and it is likely that the work-family conflict-life satisfaction relationship will play out differently for special needs caregivers, who all experience extreme family demands. Because special needs caregivers acquire family resilience through their struggles and they experience positive affect as a result of their extreme caregiving role, it is likely that the relationship between FIW and life satisfaction will be different based on the type of care that a person provides.

Hypothesis 6

As FIW increases, life satisfaction decreases.

Hypothesis 7

FIW affects life satisfaction differently based on type of caregiving such as the negative relationship between FIW and life satisfaction is weaker for those who are special needs caregivers than those who are not.

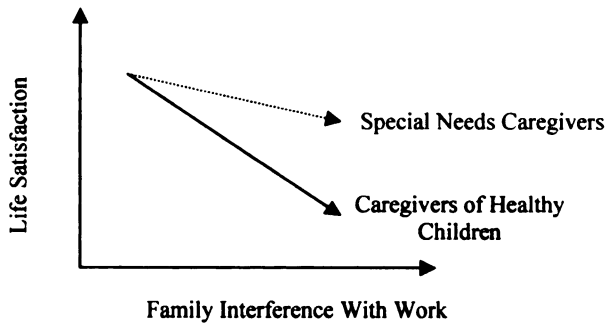

Figure 6. The proposed interaction between caregiving status and life satisfaction.

Hypothesis 8A

Type of caregiving affects resilience such that those who are special needs caregivers have more resilience than those who are not.

Hypothesis 8B

FIW affects life satisfaction differently based on how resilient a person is such that the negative relationship between FIW and life satisfaction is weaker for those who are more resilient.

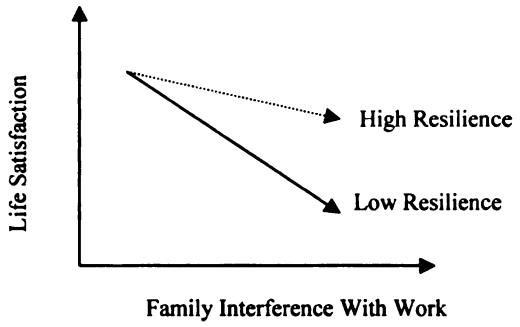

Figure 7. The proposed interaction between resilience and life satisfaction.

Hypothesis 9A

Type of caregiving affects affect such that those who are special needs caregivers experience more positive affect than those who are not.

Hypothesis 9B

FIW affects life satisfaction differently based on how much positive affect a person experiences such that the negative relationship between FIW and life satisfaction is weaker for those who are experience more positive affect.

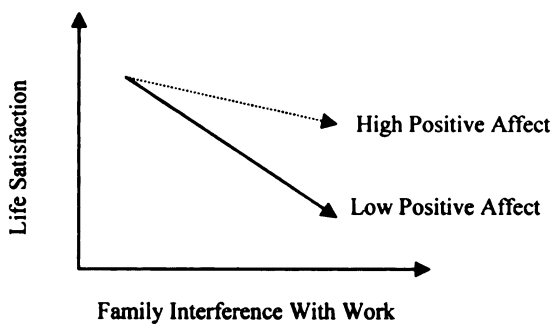

Figure 8. The proposed interaction between positive affect and life satisfaction.

Hypothesis 10

Type of caregiving affects work withdrawal behaviors such that special needs caregivers will exhibit more work withdrawal behaviors than those who are not.

Method

Participants

Participants included 119 caregivers; 98 who at a large Midwestern university and 21 who worked elsewhere. All participants worked at least 20 hours per week. An a priori power analysis indicated that 190 participants were necessary to provide an adequate amount of power (see Appendix A). Initial sampling strategies including running ads in newspapers and contacting local support groups for those with special needs failed to obtain the number of cases needed to reach the desired level of power. Therefore, another attempt was made to return to the samples with follow-up contacts, seeking more cases. These resulted in over 100 cases but still below the desired level. Thus, after several

attempts to strengthen power, it was decided to go forward with the existing sample, in part, because of the fact that special needs caregiving is a low base rate phenomenon and because of what we felt was the importance of knowing more about the problems caregivers faced at work, even if the potential for learning about their situation was limited by a small sample. Therefore, it was decided to continue with the smaller sample and take into account its limitations when the data are discussed. A post hoc power analysis is included in Appendix A, indicating that the size of the effect that would be detectable in this study was .14. Participants were compensated $10 for their participation. Characteristics of the sample are listed in Tables 1 and 2.

Table 1

Sample Characteristics: Mean Age, Weekly Hours of Work, Number of Dependent Children

Variable	Mean	SD	N
Age	42.81	8.01	116
Hours of work	38.89	8.81	111
Number of children dependent on participant	1.66	1.00	110

Table 2

Sample Characteristics: Race, Gender and Marital Status

Variable	Percentage
Race[a,d]	
White/Caucasian	90.76%
African-American	3.36%
Hispanic	3.36%
Asian/Pacific Islander	0.84%
Other	0.84%
Gender[b,d]	
Male	19.33%
Female	79.83%
Marital Status[c,e]	
Single	2.52%
Single, lives with romantic partner	5.04%
Married	79.83%
Separated	0.84%
Divorced	11.76%

[a]One participant declined to indicate his/her race.

[b]One participant declined to indicate his/her gender.

[c]Percentages do not add up to 100.00% due to rounding error.

[d]N=118

[e]N=119

Participants were recruited from two samples in order to attempt to capture an acceptable amount of variance in the caregiving load with which the caregiver was faced. First, a group of people who cared for chronically ill family members was sampled. This sample was recruited through four different agencies: a center that provides respite care for parents of chronically ill children (hereafter referred to as subsample A), a center that provides assistance to family members of patients who have a chronic illness and have six months or less to live (hereafter referred to as subsample B), a clinic that provides care for children with pulmonary disorders (hereafter referred to as subsample C), and a group of parents that participate on an advisory board that expresses the concerns of parents with chronically ill children to the Michigan state government, each of whom had a child of his or her own with a chronic illness (hereafter referred to as subsample D). The second sample consisted of university employees who cared for at least one dependent family member (hereafter referred to as subsample E).

Procedure

Participants from subsamples A-D were recruited using a contact person from each of the aforementioned agencies who sent out a letter to each of the families served by that agency. The letter introduced the experimenter and the study. With the letter was included a letter from the experimenter introducing the study (see Appendix B) and a stamped, self-addressed postcard. The caregivers were instructed to return the postcard to the experimenter if they were interested in participating. The experimenter sent out a survey along with a self-addressed business reply return envelope upon receipt of the postcard. The participants were asked to return the survey within two weeks.

The second sample consisted of university employees (subsample E). Nine hundred and seventy-five university employees were randomly selected out of the employee directory in two waves. They received a letter through the campus mail system describing the study and asking them to participate (see Appendix C). If they did not feel they fit the qualifications for the study, they were asked to indicate that. As in the sample of participants who cared for chronically ill loved ones, the university employees indicated their agreement to participate (or their failure to qualify for the study) by returning a self-addressed postcard to the experimenter. Upon receipt of the postcard, the experimenter sent out the survey along with a self-addressed business reply return envelope to those who indicated that they fit the qualifications for participation and were willing to participate.. Participants were instructed to return it within two weeks. Four hundred and eighty-six potential participants received a follow-up letter with an additional postcard, reminding them to reply. Participants in this sample who agreed to fill out the survey received an email reminding them to return the survey every two weeks for twelve weeks after the survey was initially sent out until either the survey was returned or until twelve weeks were over. There were 298 people who indicated that they did not qualify for the study; this left a total of 677 people, 100 of whom participated in the study, and 577 of whom did not respond at all to the recruitment letter(s). The response rate for the university employees sample was calculated based on these 677 people. Of the 100 that agreed to participate, 33 indicated that they were the primary or co-caregiver for a family member with a chronic illness. Of the university employees who were recruited, two cases were dropped because they did not have any dependents. Thus, the data from 98 of the people who were recruited through the university were

analyzed in this study. The number of people in each subsample who were recruited as well as the number who actually participated and the response rate are summarized in Table 3. Of the 100 returns from the university sample, two failed to notice that we asked that all participants work at least 20 hours per week. These two cases were dropped. Similarly, of the 16 returns in subsample A, one person was not employed, so that case was dropped.

Table 3

Size and Response Rate of Subsamples

Subsample	Recruited	Returned Surveys	Used in Final Sample	Response Rate
A	93	16	15	17.20%
B	3	0	0	0.00%
C	69	2	2	2.90%
D	11	4	4	36.36%
E	677	100	98	14.77%
Total	853	122	119	14.30%

Measures

Caregiving Assessment

This study sought to explore the nature of family interference with work for those with a heavy caregiving demand—special needs caregivers. In order to assure that the sample contained those who were special needs caregivers and that our measures captured these behaviors, this type of caregiving was assessed in several ways. First, participants were selected from groups of people who had family members with chronic

illnesses to ensure that a heavy caregiving demand could potentially exist. However, a large amount of variance existed in how much care a chronically ill person needs, depending on the illness and how far it had progressed. Therefore, the level of caregiving in which the participant engaged was measured in a three-part fashion (see Appendix D). Each participant completed all three parts of this assessment, regardless of whether or not he/she provided care for a chronically ill loved one. The first part of this assessment process was simply to ask the participants if they provided care for a chronically ill loved one (hereafter referred to as type of caregiving; Part I). A second was to inquire how many unique caregiving behaviors they provided for their loved ones and how often they provided them (Part II). Unique caregiving behaviors were defined as providing assistance with things with which a healthy person the same age would not need help. A third was to administer a level of caregiving measure, asking the participants how often they provided assistance to their loved ones with the basic and instrumental activities of daily life (Part III). These measures are described in more detail below. Analyses were performed to determine which of these measures (or combination thereof) best captured the essence of special needs caregiving and therefore should be used in testing the hypotheses, and that procedure will be presented after a description of the components of the caregiving measures.

Part I: Type of Caregiving. Caregivers were asked to respond to one item indicating whether or not they provided care for a chronically ill loved one.

Part II: Unique Caregiving Behaviors. Unique caregiving behaviors were measured using an instrument constructed for the purposes of this study. Caregivers were asked to list the kinds of care they provided for their loved ones that were not required by

most individuals that were the ages of the loved ones for whom they provided care; caregivers could list up to 10 such kinds of care. They were then asked to indicate how often they provided these kinds of care using a 7-point Likert-type scale ranging from "Never" to "Daily."

Two scores were derived from this measure. The first was the number of unique behaviors, which was determined by counting the number of unique caregiving behaviors that caregivers listed, from 0 to 10 (M=2.78, SD=3.56). The second was the frequency of unique behaviors, which was determined by adding up the frequency ratings given to each of the behaviors listed (M=16.57, SD=22.38). The number of frequency ratings summed was equal to the number of caregiving behaviors that the caregivers listed. For example, if the caregiver listed 7 unique caregiving behaviors and rated each of those behaviors with regard to the frequency with which they performed them, then these 7 frequency ratings would be added together to make up the frequency of unique behaviors score, for a minimum possible score of 7, and a maximum possible score of 49. If the caregiver did not list any unique caregiving behaviors, the maximum possible score for the frequency of unique behaviors would be 0, and if the caregiver listed 10 unique caregiving behaviors, the maximum possible score for the frequency of unique behaviors would be 70.

Part III: Level of Caregiving. The level of caregiving provided was measured using a 17-item measure adapted from the Caregiving Hassles Scale (Kinney & Stephens, 1989). The instructions were altered so that caregivers were asked to indicate the frequency with which behaviors were performed rather than how much the behaviors were a hassle, and one item was added to assess how often caregivers assisted care

recipients with homework or read to the care recipients. This scale asked participants to indicate the frequency with which they provided assistance with the basic and instrumental activities of daily life. Participants responded using a 7-point scale ranging from never to daily. Sample items included, "About how often do you bathe the care-recipient?" and "About how often do you prepare meals for the care recipient?" Internal consistency reliability was .90 for the basic activities of daily life (BADL; n=103) and .83 for the instrumental activities of daily life (IADL; n=105). The overall scale had an internal consistency reliability of .91 (n=99).[a] The score for this scale and all that follow was calculated by taking the mean of the items that were answered in each subscale.

Work-Family Conflict

The extent to which family responsibilities interfered with work was assessed with the four-item FIW subscale by Gutek, Searle & Klepa (1991). Participants were asked to respond using 5-point scales ranging from strongly agree to strongly disagree to items such as "After work, I come home too tired to do some of the things I'd like to do," and "My personal life takes up time that I'd like to spend at work." The alpha coefficient was .71 for the FIW items (see Appendix F; n=119).

Job Satisfaction

Job satisfaction was measured by the Job Descriptive Index (Bowling Green State University, 1997). This measure asked participants to indicate their level of satisfaction

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[a] Additional caregiving items were administered in addition to these that were not included in the analyses. The complete measure that was administered, including all of the items that were analyzed as well as those that were not (which appear in boldface), is located in Appendix E. Footnotes at the end of the appendix indicate the rationale for not analyzing the items that were excluded.

(satisfied, dissatisfied, or not sure) with various aspects of six dimensions of their job, including (1) work on the present job, (2) present pay, (3) opportunities for promotion, (4) supervision, (5) co-workers, and (6) the job in general (see Appendix G). Coefficient alphas for those subscales were .88, .83, .84, .87, .88, and .86, based on 108, 113, 115, 111, and 109 cases respectively. Only the job in general scale was used here because all of the hypotheses were for overall job satisfaction and were not broken down by subscales.

Life Satisfaction

Life satisfaction was measured by the Satisfaction With Life Scale (Diener, 1985), a 5-item scale that asked participants to respond using a 7-point scale ranging from strongly disagree to strongly agree to questions such as, "In most ways, my life is close to my ideal," and "I am satisfied with my life." The coefficient alpha for this scale was .89 (see Appendix H; n=119).

Work Withdrawal Behaviors

Withdrawal behaviors were measured with an 18-item scale by Roznowksi and Hanisch (1990). Participants responded using a 7-point scale ranging from daily to never, indicating how often they engaged in certain behaviors or thoughts. The participants responded to statements such as, "It is easy for me to be on time for work," and "I would like to quit my job." The alpha coefficient for this scale was .77 (see Appendix I; n=93).

Standards of Acceptability

Standards of acceptability, defined as the number of work-related hassles acceptable in a job, were measured using the work hassles subscale of the Daily Hassles Scale—Revised (Holm & Holroyd, 1992). This scale asked participants to respond to

nine potential work hassles (e.g., job dissatisfaction, problems with employees) using the following 6-point scale: 0 = "did not occur"; 1 = "occurred, not severe"; 2 = "occurred, somewhat severe"; 3 = "occurred, moderately severe"; 4 = occurred, very severe"; 5 = "occurred, extremely severe." The alpha coefficient for this scale was .63 (see Appendix J; n=118).

Coworker Social Support

Coworker social support was measured using a scale written by Ducharme and Martin (2000). This 10-item scale asked participants to indicate their agreement with statements about both affective support, such as "My coworkers really care about me" and instrumental support, such as "My coworkers will pitch in and help." Participants used a 5-point scale to respond to these questions. The coefficient alpha for the affective support scale was .93 (n=116), .87 (n=118) for the instrumental support scale, and .93 for the overall scale (see Appendix K; n=115). The overall scale was used in the analyses because the hypotheses were regarding the effects of coworker social support in general rather than the effects of a specific dimension of coworker social support.

Work as an Escape

Work as an escape was measured using a scale designed for the purposes of this study. Participants used a 7-point scale to respond to 4 items such as "I enjoy going to work because it allows me to spend some time away from the stresses of home," and "My time at work provides an escape from the stresses of home (see Appendix L)." The alpha for this scale was .86 (n=119).

Resilience

Resilience was measured using the Resilience Inventory (Wagnild & Young (1993). Participants used a 7-point scale to respond to 25 items such as "I usually take things in stride," and "I am determined." The coefficient alpha for this scale was .88 (see Appendix M; n=116).

Affect

Affect was measured using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegan, 1988). Participants used a 5-point scale to indicate how often they experience 20 different feelings and emotions (e.g., interested, distressed, excited, distressed). Coefficients alphas were .90 for positive affect (n=112) and .88 for negative affect (see Appendix N; n=112). Caregiving can make caregivers feel good about themselves and evoke positive feelings, and the hypotheses suggest that these positive feelings may improve job and life satisfaction. It is possible that caregiving could evoke negative feelings, but it is unlikely that these negative feelings would improve job or life satisfaction. Thus, the negative affectivity data were not used.

Demographics

Finally, participants were asked to provide information about their living arrangement, dependents, gender, race, marital status, income, and employment. These appear in Appendix O.

Order of Administration

The measures were administered in the following order: job satisfaction, life satisfaction, work withdrawal, work-family conflict, caregiver time demands, level of

caregiving, unique caregiving behaviors, coworker social support, work as an escape, work hassles, resilience, affect, demographics.

Results

Analyses were completed in two steps. The first set of analyses was used to determine what appeared to be the most appropriate way to assess special needs caregiving. Second, the hypotheses presented earlier were tested using regression methodology to see if there are main effects, moderation, and/or mediation. Because it was necessary to determine which caregiving measures should be used in the analyses in order to conduct them properly, I will begin by presenting these analyses.

Caregiving Assessment Analysis

In order to address the issue of which caregiving measure (or combination thereof) should be used to index special needs caregiving, a factor analysis was conducted. The 17 items from the Level of Caregiving Scale, the Type of Caregiving score, and the two scores from the Unique Caregiving Behaviors Scale were analyzed using exploratory factor analysis with a maximum likelihood extraction followed by a varimax rotation and Kaiser normalization. The scree test criterion indicated that a four or five factor solution was most likely to be appropriate. The Kaiser criterion of considering all factors that have eigenvalues of greater than 1.00 indicated that four factors should be considered. However, when an examination of the factor loadings of a four-factor solution rotated to a varimax criterion indicated that no item loaded highest on the fourth factor, and since the three-factor solution appeared reasonably interpretable, three factors were used.

Examining the three-factor solution and considering only the items that had loadings of at least .50 on a factor revealed a fairly clear factor solution (see Table 4). The first factor includes items that describe basic activities of daily life; these are the hands-on, fundamental activities of life that most healthy adults and children can perform for themselves, including things like walking, toileting, bathing, moving from one place to the next, eating, and dressing. The second factor includes items that describe instrumental activities of daily life; these are the activities of life that healthy adults and children often have others perform for them to some extent, including things like laundry, picking up the house, preparing meals, and assistance with homework or paperwork. The third factor describes things that would contribute to the sheer volume of caregiving, including the type of caregiving and both of the unique caregiving behavior scores. Five items did not load clearly higher on one dimension than another.

Table 4

Caregiving Factors with Item Loadings

Items	Factors	I	II	III
Assist care-recipient with walking		**.70**	-.04	.32
Assist with care-recipient's toileting		**.77**	.26	.28
Bathe care-recipient		**.81**	.37	.07
Assist care-recipient with exercises/therapy		**.51**	.22	.32
Lift or transfer care-recipient		**.71**	.07	.07
Help care-recipient eat		**.73**	.20	.24
Dress care-recipient		**.83**	.37	.20
Provide care-recipient assistance during the night		**.72**	.28	.16
Do care-recipient's laundry		.16	**.78**	.27
Pick up after care-recipient		.31	**.76**	.04
Preparing meals for care-recipient		.04	**.63**	-.02
Provide daytime supervision to care-recipient		.31	**.55**	.07
Type of caregiving		.14	-.16	**.59**
Number of unique behaviors		.20	.12	**.95**
Frequency of unique behaviors		.29	.22	**.93**
Assisting care-recipient with health aids (e.g., braces)		.27	.27	**.41**
Transport care-recipient to doctor/other places		.39	.21	.17
Giving medications to care-recipient		.43	.33	.40
Read to care-recipient/help with homework or paperwork		.12	.47	.00
Experience extra expenses due to caregiving		.37	.43	.17

Caregiving scores that were used in the regressions were calculated. The first caregiving score was calculated using the items that loaded highly on the first factor. This score, which will be hereafter referred to as "extreme behaviors," was calculated by taking the mean of all of the variables that loaded highly on Factor I. This was determined to be a good proxy of special needs caregiving not only because it was the first and strongest factor that came out of the factor analysis but also because it encompassed the activities that special needs caregivers perform that are quite hands-on and can usually be performed by healthy children and adults for themselves. Coefficient alpha for this score was .93 (n=102).

The second caregiving score, which will hereafter be referred to as "overall caregiving," was calculated by taking the mean of all of the variables that initially entered into the factor analysis. This was determined to be a good proxy of special needs caregiving because it combined all of the aspects that were theorized to be part of special needs caregiving and because the items had intercorrelations sufficient enough to produce a coefficient alpha of at least .70. Coefficient alpha for this score was .70 (n=99).

In order to assess the validity of these scores, a t-test was conducted to compare the extreme behaviors and overall caregiving between those who indicated that they provided care for a chronically ill loved one and those who indicated that they do not (see Table 5). It was expected that there would be a significant difference in the means for extreme behaviors and overall caregiving between these two groups. The results indicate that those who provide care for a chronically ill loved one provide significantly more overall caregiving than those who do not (t=-5.84, p<.01; d=1.01). Those who provided care for a chronically ill loved one did not engage in more extreme behaviors than those

who do not (t=-1.35, p=.18; d=.25). Yet since this was the most direct measure of special needs caregiving and since it was a self nomination, it was decided that the hypotheses involving caregiving will each be tested twice: once with extreme behaviors as a proxy for caregiving, and once with overall caregiving as a proxy for caregiving.

Table 5

Extreme Behaviors and Overall Caregiving Descriptives by Type of Caregiving

	Special Needs Caregivers			Caregivers of Healthy Children			
Variable	Mean	SD	N	Mean	SD	N	*d*
Extreme behaviors	3.49	2.15	54	2.96	2.11	65	.25
Overall caregiving[a]	5.44	2.52	54	3.47	1.32	65	1.01

[a] The difference between the means for the two groups is significant at the p<.01 level.

In order to determine whether age, hours of work, or number of children varied systematically with either of the caregiving variables, a correlation was conducted (see Table 6). Extreme behaviors and age were significantly and negatively correlated (r=-.42, p<.01), indicating that those who are younger engage in more extreme behaviors. This correlation is somewhat problematic. Age correlates negatively with extreme behaviors, but that relationship may be caused by the fact that people who are younger tend to have younger children. Younger children have more extreme needs; it is normal for them to need assistance with walking, toileting, or eating. Thus, younger people may engage in these extreme caregiving behaviors as a byproduct of the age of their children, not their involvement in the special needs caregiving role. In order address this issue, I controlled for the relationship between age and extreme behaviors in the analyses by entering age into the first step of any regression involving extreme behaviors.

Table 6

Means and Standard Deviations for and Correlations Between Age, Hours of Work, Number of Children, and Caregiving Variables

Variable		Mean	SD	N	1	2	3	4	5
1	Age	42.8	8.01	116	1.00				
2	Hours of work	38.89	8.81	111	.00	1.00			
3	Number of children	1.65	1.00	117	-.18	-.15	1.00		
4	Extreme behaviors	3.21	2.14	118	-.42*	-.16	.08	1.00	
5	Overall caregiving	4.36	2.18	119	-.12	-.18	.10	.75*	1.00

*$p<.01$

Table 7 provides the means, standard deviations, and intercorrelations among all of the variables used in this study.

Table 7

Means, Standard Deviations, and Intercorrelations of all Subjective Report Variables in the Study

Variable	Mean	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13
1Extreme Behaviors	3.21	2.14	118	1.00												
2Overall Caregiving	4.36	2.18	119	0.75**	1.00											
3FIW	2.35	0.76	119	0.11	0.24**	1.00										
4Job Satisfaction	2.49	0.51	119	0.17	0.09	-0.24**	1.00									
5Life Satisfaction	4.71	1.43	119	0.04	-0.15	-0.34**	0.24**	1.00								
6Work Withdrawal	2.57	0.87	118	-0.05	0.00	0.41**	-0.36**	-0.27**	1.00							
7Standards of Acceptability	0.77	0.51	118	-0.02	-0.05	-0.33**	0.33**	0.19*	-0.40**	1.00						
8Affective Coworker Social Support	3.84	0.76	119	0.10	0.16	-0.16	0.42**	0.25**	-0.34**	0.37**	1.00					
9Instrumental Coworker Social Support	3.92	0.72	119	0.17	0.17	-0.18*	0.32**	0.24**	-0.27**	0.38**	0.73**	1.00				
10Work as an Escape	4.62	1.44	119	0.31**	0.43**	0.32**	0.22*	-0.19*	-0.06	-0.06	0.29**	0.19*	1.00			
11Resilience	5.63	0.60	119	-0.03	0.06	-0.12	0.14	0.31**	-0.07	0.10	0.29**	0.28**	0.05	1.00		
12Positive Affectivity	3.50	0.70	115	-0.06	0.07	-0.23*	0.17	0.24**	-0.14	0.10	0.41**	0.41**	0.08	0.72**	1.00	
13Negative Affectivity	1.93	0.65	115	-0.08	0.03	0.34**	-0.18*	-0.31**	0.24**	-0.26**	-0.15	-0.25**	0.17	-0.29**	-0.27**	1.00

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

Tests of Hypotheses

The tests of the hypotheses will be presented in numerical order.

Hypothesis 1

The first hypothesis predicted that as FIW increases, job satisfaction decreases. Linear regression analyses indicate that a significant relationship does exist (β=-.24, p<.01; see Table 8). Hypothesis 1 was strongly supported.

Table 8

Regression Relating FIW to Job Satisfaction

Variable	β	Adj. R^2	ΔR^2
FIW	-.24*	.05*	.06*

*p<.01

Note: n=119. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels re based on F tests for that step.

Hypothesis 2

Hypothesis 2 stated that there would be an interaction between FIW and type of caregiving such that the relationship between FIW and job satisfaction is weaker for those who are special needs caregiver than for those who are not. This hypothesis was tested twice: first with extreme behaviors as a proxy for caregiving, and second with overall caregivers as a proxy for caregiving.

Extreme Behaviors. To test this hypothesis, a three-step hierarchical regression was performed, with age in the first step, FIW and extreme behaviors in the second step, and the interaction between FIW and the extreme behaviors in the third step. The beta coefficient for FIW was significant (β=-.33, p<.05), but the beta coefficients for age

(β=.08, *ns*), extreme behaviors (β=-.10, *ns*), and the interaction between FIW and extreme behaviors (β=.37, *ns*) were not (see Table 9). Because the interaction did not account for significantly more variance than FIW and extreme behaviors alone, Hypothesis 2 was not supported.

Table 9

Regression Testing the Hypothesis that Extreme Behaviors Moderates the Relationship Between FIW and Job Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
Age	.08	-.01	.00
Step 2			
FIW	-.33*		
Extreme Behaviors	-.10	.03	.09*
Step 3			
FIW x Extreme Behaviors	.37	.04	.00

*$p<.05$

Note: $n=115$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. To test this hypothesis, a two-step hierarchical regression was performed, with FIW and overall caregiving in the first step and the interaction between the two in the second step. Only the beta coefficient for FIW (β=-.46, $p<.05$), was significant; the beta coefficients for overall caregiving (β=-.21, *ns*), and the interaction between the two (β=.48, *ns*) were not. Since the interaction did not account

for significantly more variance than FIW and type of caregiving did alone, Hypothesis 2 was not supported (see Table 10).

Table 10

Regression Testing the Hypothesis that Overall Caregiving Moderates the Relationship Between FIW and Job Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.46*		
Overall Caregiving	-.21	.02	.04
Step 2			
FIW x Overall Caregiving	.48	.02 ·	.01

*$p<.05$

Note: $n=119$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 3A

Hypothesis 3A suggested that type of caregiving will affect the standards of acceptability such that those who are special needs caregivers will have lower standards of acceptability than those who are not. This hypothesis will be tested twice; once with extreme behaviors as a proxy for special needs caregiving, and once as overall caregiving as a proxy for special needs caregiving. Hypotheses 4A, 5A, 8A, and 9A will be tested and presented in this format as well.

Extreme Behaviors. To test this hypothesis, a linear regression analysis was performed. The results indicate that after controlling for age, the relationship is not

significant (β=.00, *ns*; see Table 11). Hypothesis 3A was not supported using extreme behaviors as a proxy for special needs caregiving.

Table 11

Regression Relating Extreme Behaviors to Standards of Acceptability

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	.02	-.01	.00
Step 2			
Extreme Behaviors	.00	-.02	.00

Note: n=117. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. A linear regression analysis was conducted to test this hypothesis. The results indicate that the relationship is not significant (β=-.01, *ns*; see Table 12). Therefore, Hypothesis 3A was not supported using overall caregiving as a proxy for special needs caregiving.

Table 12

Regression Relating Overall Caregiving to Standards of Acceptability

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	-.01	-.01	.00

Note: n=118. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 3B

Hierarchical regression methodology was used to determine whether standards of acceptability moderated the relationship between FIW and job satisfaction. FIW and standards of acceptability were entered into the first step, and the interaction between the two was entered into the second step. None of the beta coefficients for FIW (β=-.28, *ns*), standards of acceptability (β=.22, *ns*), or the interaction between the two (β=.24, *ns*) was significant; since the interaction was not significant, standards of acceptability does not moderate the relationship between FIW and job satisfaction. The results of the regression are presented in Table 13.

Table 13

Regression Determining Whether Standards of Acceptability Moderates the Relationship Between FIW and Job Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.28		
Standards of Acceptability	.22	.11*	.11*
Step 2			
FIW X Standards of Acceptability	.24	.11*	.00

*p<.01

Note: *n*=118. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 4A

Hypothesis 4A said that type of caregiving affects coworker social support such that those who are special needs caregivers experience more coworker social support than those who are not.

Extreme Behaviors. To test this hypothesis, a linear regression analysis was performed. The results indicate that after controlling for age, the relationship is significant (β=.23, p<.05; see Table 14). Hypothesis 4A was supported using extreme behaviors as a proxy for special needs caregiving.

Table 14

Regression Relating Extreme Behaviors to Coworker Social Support

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	.23*	.01	.02*
Step 2			
Extreme Behaviors	.23*	.05	.04*

*p<.05

Note: n=118. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. A linear regression analysis was conducted to test this hypothesis. The results indicate that the relationship is not significant (β=.17, *ns*; see Table 15). Therefore, Hypothesis 4A was not supported using overall caregiving as a proxy for special needs caregiving.

Table 15

Regression Relating Overall Caregiving to Coworker Social Support

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	.17	.02	.03

Note: n=118. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 4B

This hypothesis was tested using a two-step hierarchical regression in order to determine whether coworker social support moderated the relationship between FIW and job satisfaction. FIW and coworker social support were entered into the first step, and the interaction between the two was entered into the second step. The betas associated with FIW (β=.29, *ns*) and the interaction between FIW and coworker social support (β=-.39, *ns*) are not significant; only the beta associated with coworker social support was significant (β=.59, p<.01). Since the interaction was not significant, coworker social support does not moderate the relationship between FIW and job satisfaction. The results of the regression are presented in Table 16.

Table 16

Regression Determining Whether Coworker Social Support Moderates the Relationship Between FIW and Job Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	.29		
Coworker Social Support	.59*	.15**	.16**
Step 2			
FIW X Coworker Social Support	-.39	.15**	.00

*p<.05, **p<.01

Note: n=119. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 5A

Hypothesis 5A said that type of caregiving affects the experience of work as an escape such that those who are special needs caregivers are likely to view work as an escape from troubles in their non-work life.

Extreme Behaviors. To test this hypothesis, a linear regression analysis was performed. The results indicate that the relationship is significant (β=.36, p<.01; see Table 17). Hypothesis 5A was supported using extreme behaviors as a proxy for special needs caregiving.

Table 17

Regression Relating Extreme Behaviors to Work as an Escape

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	.13	-.01	.00
Step 2			
Extreme Behaviors	.36*	.09*	.11*

*$p<.01$

Note: $n=117$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. A linear regression analysis was conducted to test this hypothesis. The results indicate that the relationship is significant ($\beta=.43$, $p<.01$; see Table 18). Therefore, Hypothesis 5A was not supported using overall caregiving as a proxy for special needs caregiving.

Table 18

Regression Relating Overall Caregiving to Work as an Escape

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	.43*	.18	.18

*$p<.01$

Note: $n=118$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 5B

A two-step hierarchical regression was conducted to determine whether work as an escape moderated the relationship between FIW and job satisfaction. FIW and work as an escape were entered into the first step, and the interaction between the two was entered into the second step. None of the betas associated with FIW (β=-.55, *ns)*, work as an escape (β=.04, *ns)*, or the interaction between the two (β=.47, *ns)* was significant. Work as an escape does not moderate the relationship between FIW and job satisfaction. The results of the regression are presented in Table 19.

Table 19

Regression Determining Whether Work as an Escape Moderates the Relationship Between FIW and Job Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.55		
Work as an Escape	.04	.08*	.11*
Step 2			
FIW X Work as an Escape	.47	.08*	.00

*$p<.01$

Note: n=118. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 6

The sixth hypothesis predicted that as FIW increases, life satisfaction decreases. Linear regression analyses provided evidence in support of this hypothesis (β=-.34, $p<.01$; See Table 20). Hypothesis 6 was strongly supported.

Table 20

Regression Relating FIW to Life Satisfaction

Variable	β	Adj. R^2	ΔR^2
FIW	-.34*	.11*	.12*

*$p<.01$

Note: n=119. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 7

Hypothesis 7 stated that there was an interaction between FIW and type of caregiving such that the relationship between FIW and life satisfaction is weaker for those who are special needs caregiver than for those who are not. This hypothesis will be tested twice: first with extreme behaviors as a proxy for caregiving, and second with overall caregivers as a proxy for caregiving.

Extreme Behaviors. To test this hypothesis, a three-step hierarchical regression was performed, with age in the first step, FIW and extreme behaviors in the second step, and the interaction between FIW and the extreme behaviors in the third step. None of the beta coefficients for FIW (β=-.26, *ns*), age (β=-.12, *ns*), extreme behaviors (β=.19, *ns*), or the interaction between FIW and extreme behaviors (β=-.21, *ns*) was significant (see

Table 21). Because the interaction did not account for significantly more variance than FIW and extreme behaviors alone, Hypothesis 7 was not supported.

Table 21

Regression Testing the Hypothesis that Extreme Behaviors Moderates the Relationship Between FIW and Life Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
Age	-.12	.00	.01
Step 2			
FIW	-.26		
Extreme Behaviors	.19	.11*	.12*
Step 3			
FIW x Extreme Behaviors	-.21	.11*	.00

*$p<.01$

Note: $n=115$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. A two-step hierarchical regression was used to test this hypothesis. FIW and overall caregiving were entered into the first step, and the interaction between the two was entered into the second step. None of the beta coefficients for FIW (β=-.04, *ns*), overall caregiving (β=.31, *ns*), or the interaction between the two (β=-.55, *ns*) was significant. The interaction between FIW and overall caregiving did not account for significantly more variance than either FIW or overall caregiving did alone; therefore Hypothesis 7 was not supported (see Table 22).

Table 22

Regression Testing the Hypothesis that Overall Caregiving Moderates the Relationship Between FIW and Life Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.04*		
Overall Caregiving	.31	.11**	.12**
Step 2			
FIW x Overall Caregiving	-.55	.12**	.02

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

Note: $n=119$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 8A

Hypothesis 8A proposed that the type of caregiving in which someone is involved affects resilience such that those who are special needs caregivers have more resilience than those who are not.

Extreme Behaviors. A linear regression was conducted in order to test this hypothesis. Results indicated that the proposed relationship was not significant (β=.04, *ns;* see Table 23). Therefore, this hypothesis was not supported when extreme behaviors was used as a proxy for special needs caregiving.

Table 23

Regression Relating Extreme Behaviors to Resilience

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	.25	.05	.06*
Step 2			
Extreme Behaviors	.03	.04	.00

*$p<.01$

Note: $n=118$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. This hypothesis was tested using linear regression methodology. Results indicated that the proposed relationship was not significant. (β=.06, *ns;* see Table 24). Therefore, this hypothesis was not supported when overall caregiving was used as a proxy for special needs caregiving.

Table 24

Regression Relating Overall Caregiving to Resilience

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	.06	-.01	.00

Note: $n=119$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 8B

This hypothesis was tested using a two-step hierarchical regression to determine whether resilience moderated the relationship between FIW and life satisfaction. FIW and resilience were entered into the first step, and the interaction between the two was entered into the second step. None of the betas associated with FIW (β=-.30, *ns)*, resilience (β=.27, *ns)*, or the interaction between the two (β=-.01, *ns)* was significant; since the interaction was not significant, resilience does not moderate the relationship between FIW and life satisfaction. The results of the regression are presented in Table 25.

Table 25

Regression Determining Whether Resilience Moderates the Relationship Between FIW and Life Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.30		
Resilience	.27	.17*	.19*
Step 2			
FIW X Resilience	-.01	.17*	.00

*$p<.01$

Note: n=119. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 9A

Hypothesis 9A said that type of caregiving affects positive affect such that those who are special needs caregivers experience more positive affect than those who are not.

Extreme Behaviors. A linear regression was conducted in order to test this hypothesis. Results indicated that the proposed relationship was not significant (β=-.06, *ns;* see Table 26). Therefore, when extreme behaviors was used as a proxy for special needs caregiving, this hypothesis was not supported.

Table 26

Regression Relating Extreme Behaviors to Positive Affect

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	.25	.04	.05*
Step 2			
Extreme Behaviors	.05	.04	.00

*$p<.05$

Note: $n=118$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. This hypothesis was tested using linear regression methodology. Results indicated that the proposed relationship was not significant. (β=.07, *ns;* see Table 27). Therefore, this hypothesis was not supported when overall caregiving was used as a proxy for special needs caregiving.

Table 27

Regression Relating Overall Caregiving to Positive Affect

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	.07	-.01	.00

Note: n=119. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 9B

A two-step hierarchical regression was conducted to determine whether positive affect moderated the relationship between FIW and life satisfaction. FIW and positive affect were entered into the first step, and the interaction between the two was entered into the second step. None of the betas associated with FIW (β=-.02, *ns)*, positive affect (β=-.47, *ns)*, or the interaction between the two (β=-.28, *ns)* was significant; since the interaction was not significant, positive affect does not moderate the relationship between FIW and life satisfaction. The results of the regression are presented in Table 28.

Table 28

Regression Determining Whether Positive Affect Moderates the Relationship Between FIW and Life Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.02		
Positive Affect	.35	.11*	.13*
Step 2			
FIW X Positive Affect	-.28	.11*	.00

*$p<.01$

Note: $n=119$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Hypothesis 10

The tenth hypothesis predicted that as FIW increases, work withdrawal increases. Linear regression analysis found support for this hypothesis (β=.41, $p<.01$; See Table 29). Hypothesis 10 was strongly supported.

Table 29

Regression Relating FIW to Work Withdrawal

Variable	β	Adj. R^2	ΔR^2
FIW	.41*	.16*	.17*

*$p<.01$

Note: $n=118$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Post Hoc Analyses

Negative Affectivity

Although negative affectivity was not part of the proposed model, it seemed likely to have some relationships with the variables of interest here. Therefore, regression analyses were conducted to determine whether type of caregiving affects negative affect such that those who are special needs caregivers experience more or less negative affect than those who are not as well as whether negative affect moderates the relationship between FIW and life satisfaction.

Extreme Behaviors. A linear regression was conducted in order to test whether type of caregiving might affect negative affectivity when extreme caregiving was used as a proxy for special needs caregiving. Results indicated that the proposed relationship was not significant (β=-.08, *ns;* see Table 30). Therefore, when extreme behaviors was used as a proxy for special needs caregiving, negative affectivity does not relate to special needs caregiving.

Table 30

Regression Relating Extreme Behaviors to Negative Affect

Variable	β	Adj. R^2	ΔR^2
Step 1			
Age	-.01	-.01	.00
Step 2			
Extreme Behaviors	-.08	-.01	.00

*$p<.05$

Note: $n=111$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Overall Caregiving. A linear regression was conducted in order to test whether type of caregiving might affect negative affectivity when overall caregiving was used as a proxy for special needs caregiving. Results indicated that the proposed relationship was not significant. (β=.03, *ns;* see Table 31). Therefore, negative affectivity does not relate to special needs caregiving when overall caregiving was used as a proxy for special needs caregiving.

Table 31

Regression Relating Overall Caregiving to Negative Affect

Variable	β	Adj. R^2	ΔR^2
Overall Caregiving	.03	-.01	.00

Note: $n=114$. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

A two-step hierarchical regression was conducted to determine whether positive affect moderated the relationship between FIW and life satisfaction. FIW and positive affect were entered into the first step, and the interaction between the two was entered into the second step. Only the betas associated with FIW (β=-.64, p<.05) and positive affect (β=-.70, p<.05) were significant. Since the interaction between the two was not significant (β=-.72, *ns*), negative affect does not moderate the relationship between FIW and life satisfaction. The results of the regression are presented in Table 32.

Table 32

Regression Determining Whether Negative Affect Moderates the Relationship Between FIW and Life Satisfaction

Variable	β	Adj.R^2	ΔR^2
Step 1			
FIW	-.64*		
Negative Affect	-.70*	.13**	.15**
Step 2			
FIW X Negative Affect	.72	.14**	.00

*p<.01

Note: n=114. β is the standardized regression coefficient. Increments for variables entered at the R^2 significance levels are based on F tests for that step.

Relationship Between FIW and JDI Dimensions

Although the model did not specify any hypothesized relationships between FIW and the separate dimensions of the Job Descriptive Inventory (JDI), it seemed interesting to explore these relationships to determine whether any particular dimensions of job

satisfaction are reduced more or less than others by FIW. A correlation was conducted to determine the relationship between the JDI dimensions and FIW (see Table 33).

Table 33

Intercorrelations Between JDI Job Satisfaction Dimensions and FIW

Variable	N	FIW
Work	119	-.10
Pay	119	-.08
Opportunities for Promotion	119	-.13
Supervisors	119	-.27**
Coworkers	118	-.18*
Job in General	119	-.14

*$p<.01$

The correlation between FIW and satisfaction with supervisors is significant (r=-.27, p<.01), as is the correlation between FIW and satisfaction with coworkers (r=-.18, p<.01). These relationships exist because the amount of FIW that people experience can indirectly impact their satisfaction with their supervisors and coworkers. For instance, people who experience more FIW exhibit more withdrawal behaviors (r=.41, p<.01). These withdrawal behaviors include behaviors such as being late to work and being absent from work. Employees may feel that supervisors and coworkers are evaluating them negatively because of these behaviors. The evaluation literature has demonstrated that a person's perception that an evaluator will rate him/her poorly negatively affects the person's satisfaction with the evaluator (Chambers & Schmitt, 2002). According to this

position, when the person perceives that the evaluator will evaluate him/her negatively, the person will be less satisfied with the evaluator and in turn, will tend to rate the evaluator negatively The fact that withdrawal correlates negatively and significantly with both satisfaction with one's supervisor (r=-.34, p<.01) and satisfaction with one's coworker (r=-.27, p<.01) lends support to the argument that this might be occurring. Thus, it seems likely that people who experience more FIW exhibit more withdrawal behaviors, and as a result, they feel that they are being negatively evaluated by their coworkers and supervisors, in turn negatively impacting their satisfaction with their coworkers and supervisors.

Discussion

The main goal of this study was to examine the relationship between family interference with work and its outcomes in order to see if those relationships differed occurred to one's caregiving status. Overall, this study did not detect any differences in job and life satisfaction based on caregiving status. However, support was found for the hypotheses regarding the negative relationships between FIW and life satisfaction and job satisfaction as well as the positive relationship with, and work withdrawal. This is consistent with a multitude of previous research on the effects of family interference with work (e.g., Kossek & Ozeki, 1998; Lee, 1997).

Overall caregiving and extreme types of caregiving behaviors were also found to be positively related to work as an escape. That is, those who had greater caregiving demands appreciated the opportunity to escape the pressures and stresses of home life by going to work more than those who had lower caregiving demands. The construct of work as an escape has not been explored in the literature, and the measure used in this

study was original. Thus, the fact that the measure had good reliability and a positive relationship with caregiving demands was detected was a meaningful contribution of this study.

Even though support for some of the hypothesized relationships was found, it is possible that this support is merely an artifact of response-response bias. Response-response bias is the tendency for two variables collected through self-report surveys to correlate simply because they were collected through the same self-report methodology. Thus, it is possible that even though the measures of these variables were related, the constructs were not. If support were found for the moderated relationships in this thesis, that would help to mitigate this concern because moderated relationships are less likely to fall victim to response-response bias than main effect relationships. However, the moderated relationships were not supported. Thus, this is a difficulty. However, some of the main effect hypotheses that received support in this literature replicated relationships that have been established in the literature. In addition, the hypothesized relationships were supported by theory, the measures all had good reliabilities, and with the exception of the standards of acceptability measure, all were published in previous studies and have good validity evidence. Thus, we have every reason to believe that the response-response bias was not the sole cause of the significant relationships found.

There are several plausible reasons why differences in the relationship between FIW and its outcomes according to caregiving demands were not detected. The first has to do with the selection of participants. Of the 176 participants in subsamples A-D who were recruited because it was thought likely that they would have a higher caregiving demand than normal and thus score highly on caregiving measures, only 21 participated,

for a resulting response rate of 11.93%. This response rate is low, leading one to wonder how those that responded to the survey may have differed from those that did not. Looking at the pattern of correlations between extreme behaviors and overall caregiving and the rest of the self-report variables in the data set (see Table 7), it appears that there was not a strong pattern of relationships between the two caregiving variables and any of the other variables except for work as an escape. In this sample, those with high caregiving demands did not differ significantly from those with low caregiving demands on any of the variables of interest other than work as an escape.

In addition, the majority of the responses to the overall caregiving and extreme behaviors scales were at the low end of the scales; the median score for extreme behaviors was 2.25 on a scale from 1 to 7, and the median score for overall caregiving was 3.89 on a scale from .9 to 10.05. This, in addition to the pattern of correlations, leads to the conclusion that perhaps those who were recruited from subsamples A-D and did not respond had heavier caregiving demands than anyone who did.

It seems likely that people who have high caregiving demands and must devote a lot of time and energy to their caregiving might not feel like they wanted to devote any of their precious time to filling out a survey and thus chose not to participate in the study. One possible reason for this is that the data collection occurred during the summer; it is likely that special needs caregivers with school-aged children have higher caregiving demands during the summer months because their children are not at school during the day and thus require more attention. If data collection had occurred during the school year, these caregivers may have had time to participate in the study, thus increasing the variance on the caregiving variables.

Another plausible explanation for our failure to capture those with high caregiving demands as part of our sample may have to do with the fact that the people who were recruited because we hoped that they would have high caregiving demands were recruited through agencies that provide support for caregivers with care recipients who have a chronic illness or disability. The support that the agencies provided may have served to mitigate the caregiving demands placed on the caregivers. To address this issue, caregivers facing similar issues (e.g., a care recipient with a chronic illness or disability) could be recruited who were not involved with one of these agencies and thus did not receive this auxiliary support. Such recruiting could be conducted through doctors' offices or hospitals. Some of the participants recruited through the university sample provided care for loved ones with chronic illnesses or disabilities; however, it is not clear whether or not they received support from caregiving support agencies. In order to have been able to test the viability of this proposed explanation, we should have asked the university participants if they received any such support.

The fact that the relationships between FIW and job satisfaction, life satisfaction, and work withdrawal played out in the data even though the selection of participants was problematic is reasonable. These main effect relationships have been established through meta-analytical methods (Kossek & Ozeki, 1998), which combine data from a number of different studies to gain a more accurate estimation of the true relationships that occur in the population (Hunter & Hirsch, 1987). That is, these relationships have been established to be consistent and strong in the population at large, and restriction of range caused by a small amount of variance on the caregiving variable would not be enough to prevent the detection of those relationships. However, an effective test of the mediation

hypothesis requires that there be an adequate amount of variance on the caregiving variable; one cannot test the difference between those with low and high caregiving demands if enough of those with high caregiving demands are not included in the sample.

A second plausible reason why the mediation did not play out in the data is that of the unclear nature of the construct of special needs caregiving. In this study, special needs caregiving was operationalized by factor analyzing different caregiving items to determine which ones hung together, and thus comprised the essence of special needs caregiving. However, it seems that special needs caregiving might be much more complex than that. In this study, special needs caregiving was essentially just large caregiving demands. A single mom of three children under age five would have large caregiving demands, as would a parent of two teenagers who was caring for her elderly parents, a parent of an only child who had Down's syndrome, a parent of a teenager who was quadriplegic, or the spouse of a person in the end stages of cancer. It is likely that all of these people would have scored highly on the extreme behaviors and overall caregiving measures used in this study, yet the experiences of all of these people are qualitatively different.

The relationship between the caregiver and the care recipient, whether the care recipient's needs are permanent or temporary, whether the care recipient's needs are age-appropriate expected (e.g., a two-year-old needing to be fed) or not (e.g., a sixty-year-old needing to be fed), and whether the care recipient has an illness, physical disability, or mental disability are all dimensions upon which the nature of the caregiving can differ. In order to study the realm of special needs caregiving precisely, these dimensions should all be studied individually.

Previous studies in this area have focused more narrowly on caring for loved ones with specific chronic illnesses or disabilities. Marsh and Johnson (1997) studied the effects of caring for a loved one with a chronic illness. Perlesz, Kinsella, and Crowe (1999) studied families who cared for family members with traumatic brain injuries. Marks (1998) was even more specific; she studied those who provided care for a disabled family member, and she compared caregivers of disabled spouses, children, parents, and other family members to see how the effects of caregiving may vary by the relationship between the caregiver and care recipient. The study reported here took a broader approach, defining a special needs caregiver as anyone with a caregiving demand that required lots of time and unique caregiving behaviors. However, in the course of attempting to generalize across relationships and special needs, the specificity of the construct was lost, reducing our ability to describe its effects. Combining data across types of special needs and relationships between the caregiver and care recipient may have been too diffuse to have lead to a consistent set of responses.

A third possible explanation regarding why the hypothesized relationships in the model were not supported regards the level of analytical power in this study. It has previously been mentioned that the power in this study is low. Thus, one might expect that the lack of results in this study may have been due to low power.

A fourth plausible explanation for the lack of support for this model is the poor reliability of some of the measures used. The coefficient alphas for FIW, standards of acceptability, and work withdrawal were .71, .63 and .77, respectively. While these reliabililities are not high and may have contributed to the lack of findings, they are

unlikely to have been the primary cause of so few significant effects. Nevertheless, when combined with low power, low reliabilities may have been a factor.

Future Research

Future research is needed to address some of the limitations of this study. First and foremost is the need to more clearly define the construct of special needs caregiving. The construct needs to be narrowed to include only specific types of care recipient needs and specific relationships between the caregiver and care recipient; it is not meaningful to analyze all care recipient needs and relationships between the caregiver and care recipient together because as discussed earlier, they are too different qualitatively. After the construct is narrowed, this study could be replicated using a larger number of participants to increase the precision and power of this study. Perhaps with more participants and a clearer idea of what special needs caregiving is, support could be found for the moderation hypotheses.

Another promising area for future research surrounds the construct of work as an escape. As previously mentioned, no literature to date has explored the issue of using work as an escape from the pressures and stresses of home life. This study employed an original measure that had good reliability. Additional research could further explore this construct as well as the psychometric qualities of the scale.

APPENDIX A

Power Analyses

A Priori Power Analysis

Conducting a power analysis is an important activity prior to conducting research, because you can reduce the probability of making a Type II error. The statistical power of a test refers to the probability that the test will make the correct decision of rejecting the null hypothesis when it is in fact wrong (Murphy & Myors, 1998). It is computed using the sample size, the effect size, alpha, and the desired power of a statistical test. For this study, power was set at the conventional level of .80 for each of the hypotheses.

Because none of my hypotheses have been tested in the work-family literature so far, I will infer correlation values based on a small-to-moderate effect size. For a small-to-moderate effect size ($R^2_F = .08$, $R^2_R = .04$; Murphy & Myors, 1998) testing one interaction, the F-value would be:

$$((R^2_F - R^2_R)v2)/((1 - R^2_F)v1) = 2.69$$

where: v1 = 3 because there are three predictors in the hypotheses (e.g., in Hypothesis 2: FIW, job satisfaction, and the interaction between the two)

v2 = 186 because v2 = n – # of predictors – 1

This value exceeds the critical F-value of 2.662 for 190 participants (Murphy & Myors, 1998). Therefore, this power analysis demonstrates that a sample size of at least 190 participants should be adequate to test the all of the hypotheses that use only one one-way interaction. More participants will be necessary to obtain precise tests of the more subtle mediating hypotheses.

Post Hoc Power Analysis

Because this study did not have enough participants to detect a small to medium effect based on the a priori power analysis, it was deemed necessary to conduct a post hoc power analysis to determine what the effect size would have to be in order to detect an effect with 119 participants. Based on the following equation, the effect size would have to be about .14 for a significant relationship to be detected.

$f^2 = (v_1 * F)/v_2 = .1364$

where $v_1 = 3$ because there are three predictors in the hypotheses (i.e., in Hypothesis 7: FIW, type of caregiving, and the interaction between the two)

$v_2 = 115$ because v2 = n – # of predictors – 1

$F = (R^2 * v2)/((1- R^2) v1) = 5.23$ because Adj. R^2 for Hypothesis 7 = .12

APPENDIX B

Recruitment Letter for Caregivers of the Chronically Ill

Dear Caregiver:

My name is Kerrie Vanden Bosch, and I am a graduate student in psychology at Michigan State University. As my Masters' Thesis, I am investigating how providing care for a chronically ill family member affects a person's experience of the relationship between work and family life.

I would appreciate it if you would consider participating in this study. If you agree to participate, I will send you a packet of questionnaires in the mail, and you will be asked to fill them out and send them back in a postage-paid envelope. The questionnaires should take approximately 30 minutes to complete and will ask you questions about your caregiving role, your work life, and your family life. All of your answers will be confidential. The first 100 people to return their surveys will receive $10 for their participation. If you are interested in participating, please fill out the postcard provided and return it to me in the mail.

Please note that in order to qualify for this study, you must work at least 20 hours per week and be the primary or co-caregiver for at least one chronically ill family member. In addition, please note that your decision to participate or not to participate in this study will not affect the quality of care that your child receives.

Thanks for your consideration!

Kerrie L. Vanden Bosch
Daniel R. Ilgen, Ph.D.

APPENDIX C

University Employee Recruitment Letter

July 19, 2002

Dear (insert employee's name),

You have been selected to participate in an important research study. Michigan State University researchers are investigating how providing care for a chronically ill family member affects a person's experience of the relationship between work and family life. You will serve as the comparison group; **you need not be a caregiver for a *chronically ill* family member** to participate. In order to qualify for this study, you must work at least twenty hours per week and be the primary or co-caregiver for some dependent family member. However, if you do provide care for a chronically ill family member, please check that line on the postcard; we would greatly appreciate your participation as well.

Your help in this study would be greatly appreciated. We are asking you to fill out and return the enclosed postcard via campus mail if you qualify and are interested in participating. Alternatively, you can indicate your willingness to participate by emailing dikkerri@msu.edu with the information requested on the postcard. If you agree to participate, we will send you a survey through your choice of either campus mail to your work address or US Postal Service to your home address. The survey will take approximately 30 minutes to complete, and you will be sent a check for $10 for your participation.

Please note that in order to qualify for this study, you must work at least 20 hours per week and either be the primary caregiver or equally share caregiving responsibilities with someone else for at least one dependent family member. **If you do not qualify for this study, please check that line on the postcard and return it so that we do not contact you again.**

We hope that you choose to participate in this study!

Thanks,

Kerrie L. Vanden Bosch
Daniel R. Ilgen, Ph.D.
Department of Psychology
129 Psychology Research Building
Michigan State University
East Lansing, MI 48824
Email: dikkerri@msu.edu
Phone: 517-432-7069
Fax: 517-353-4873

APPENDIX D

Caregiving Assessment

Part I: Type of Caregiving.

Do you provide care for someone with a chronic illness (circle one)? Yes No

Part II: Unique Caregiving Behaviors.

Think about the people for whom you provide care. Think about the needs that most individuals their ages have. Now think about the needs that the people you provide care for have. What kinds of things (if any) do you do to help the people that you provide care for that most people their ages wouldn't necessarily need? List one item next to each number in the space provided below. List as behaviors as you engage in, up to a total of 10.

For example, most 60-year-old people can make their own meals. Thus, if you have to prepare meals for a 60-year-old that you provide care for, you would want to list it here. Also, most 13-year-olds can dress themselves. Thus, if you have to help a 13-year-old dress him/herself, you would want to indicate that here as well.

_____1.
_____2.
_____3.
_____4.
_____5.
_____6.
_____7.
_____8.
_____9.
_____10.

Now, use the following scale to indicate how often you do the things that you listed above. Write the number corresponding to your answer in the line next to each numbered item.

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year

Part III: Level of Caregiving.

Please focus on all of your non-paid caregiving activities, including caring for your children, your grandchildren, your chronically ill loved ones, etc. Do not include any caregiving activities that are related to your employment. Please answer the questions below using the following scale.

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year
7 = Never

About how often do you:

1. Assist care-recipient with walking _____
2. Experience extra expenses due to caregiving _____
3. Assist with care-recipient's toileting _____
4. Transport care-recipient to doctor/other places _____
5. Bathe care-recipient _____
6. Assist care-recipient with exercises/therapy _____
7. Do care-recipient's laundry _____
8. Lift or transfer care-recipient _____
9. Help care-recipient eat _____
10. Pick up after care-recipient _____
11. Dress care-recipient _____
12. Give medications to care-recipient _____
13. Preparing meals for care-recipient _____
14. Assisting care-recipient with health aids (e.g., braces, dentures, etc.) _____
15. Provide daytime supervision to care-recipient _____
16. Provide care-recipient assistance during the night _____
17. Read to care-recipient or help care-recipient with paperwork or homework _____

APPENDIX E

Complete Caregiving Measure

How many hours per week do you spend caring for your loved ones? _____[a]

Do you provide care for someone with a chronic illness (circle one)? Yes No

If yes, how many hours per week do you spend providing care for this person?___[b]

If yes, how often does caring for this person interrupt your daily routine? [c]

1 = Always
2 = Often
3 = Sometimes
4 = Seldom
5 = Never

This measure seeks to find out about the kind of caregiving behaviors that you provide for that are not normally needed by people the age of your care recipient.

Think about the people for whom you provide care. Think about the needs that most individuals their ages have. Now think about the needs that the people you provide care for have. What kinds of things (if any) do you do to help the people that you provide care for that most people their ages wouldn't necessarily need? List one item next to each number in the space provided below. List as behaviors as you engage in, up to a total of 10.

For example, most 60-year-old people can make their own meals. Thus, if you have to prepare meals for a 60-year-old that you provide care for, you would want to list it here. Also, most 13-year-olds can dress themselves. Thus, if you have to help a 13-year-old dress him/herself, you would want to indicate that here as well.

_____1.

_____2.

_____3.

_____4.

_____5.

_____6.

_____7.

_____8.

_____9.

_____10.

Now, use the following scale to indicate how often you do the things that you listed above. Write the number corresponding to your answer in the line next to each numbered item.

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year

Please answer the following questions about the type of caregiving activities in which you engage.

Are you the caregiver responsible for a person with chronic illness? Yes / No

If yes, How is this person related to you?[d]

1 = He/she is my parent
2 = He/she is my child
3 = He/she is my spouse
4 = Other (please describe)_____

What is the illness? _____

Are you the caregiver responsible for any other *dependents*? Yes/No

If yes, How many people total do you provide care for? _____

Please list their ages and how they are related to you.

	Age	Relationship
1.		
2.		
3.		
4.		

Please focus on all of your non-paid caregiving activities, including caring for your children, your grandchildren, your chronically ill loved ones, etc. Do not include any caregiving activities that are related to your employment. Please answer the questions below using the following scale.

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year
7 = Never

About how often do you:

1. Assist care-recipient with walking _____
2. Experience extra expenses due to caregiving _____
3. Assist with care-recipient's toileting _____
4. Transport care-recipient to doctor/other places _____
5. Bathe care-recipient _____
6. Assist care-recipient with exercises/therapy _____
7. Do care-recipient's laundry _____
8. Lift or transfer care-recipient _____
9. Help care-recipient eat _____
10. Pick up after care-recipient _____
11. Dress care-recipient _____
12. Give medications to care-recipient _____
13. Preparing meals for care-recipient _____
14. Assisting care-recipient with health aids (e.g., braces, dentures, etc.) _____
15. Provide daytime supervision to care-recipient _____
16. Provide care-recipient assistance during the night _____

17. Read to care-recipient or help care-recipient with paperwork or homework _____

If you are the caregiver of a chronically ill family member, please answer the following 17 questions. If not, please skip to the next section. For these questions, please tell us about the caregiving activities that you provided for your loved one(s) *before* the diagnosis of the chronic illness. Please focus on all of your non-paid caregiving activities, including caring for your children, your grandchildren, your chronically ill loved ones, etc. Do not include any caregiving activities that are related to your employment. Please answer the questions below using the following scale.[ca]

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year
7 = Never

About how often do you:

18. **Assist care-recipient with walking** _____
19. **Experience extra expenses due to caregiving** _____
20. **Assist with care-recipient's toileting** _____
21. **Transport care-recipient to doctor/other places** _____
22. **Bathe care-recipient** _____
23. **Assist care-recipient with exercises/therapy** _____
24. **Do care-recipient's laundry** _____
25. **Lift or transfer care-recipient** _____
26. **Help care-recipient eat** _____
27. **Pick up after care-recipient** _____
28. **Dress care-recipient** _____
29. **Give medications to care-recipient** _____
30. **Preparing meals for care-recipient** _____
31. **Assisting care-recipient with health aids (e.g., braces, dentures, etc.)** ____
32. **Provide daytime supervision to care-recipient** _____

---

[a]Some of the answers given to this question were exaggerated (e.g. some people indicated that they were involved in caregiving behaviors 168 hours per week). Thus, it was determined that Unique Caregiving Behaviors and Level of Caregiving may be a better proxy for volume of caregiving.

[b]It was determined that the more important contributor to job- and life-related outcomes was total hours spent caregiving, rather than the hours spent caring for one particular person, so the data from this question were not analyzed.

[c]The fact that caregiving may interrupt someone's daily routine depends not only on the caregiving demands but also on the nature of the routine. Thus, the data from this question were not analyzed because the variable was not as straightforward as initially thought.

[d]It was recommended to me by a caregiving researcher to collect data on the individuals for whom the caregiver provides care. However, it did not seem necessary to use this data to test the hypotheses in this study.

[e]Special needs caregivers were also asked to respond to level of caregiving items again, keeping in mind the caregiving activities they participated in before their loved ones were diagnosed with the illness. The purpose of this was to assess the change in caregiving behaviors that occurred after the chronic illness was diagnosed. However, these data were not used because it was not deemed necessary to use the change in caregiving behaviors in order to address the research questions hypothesized.

33. Provide care-recipient assistance during the night _____
34. Read to care-recipient or help care-recipient with paperwork or homework ____

APPENDIX F

Work-Family Conflict (WIF and FIW) Items

Please answer the following questions about the extent to which your work life and your family life interfere with each other using the scale below.

1 = Strongly Agree
2 = Agree
3 = Neither Agree nor Disagree
4 = Disagree
5 = Strongly Disagree

Family Interference With Work:

1. I'm often too tired at work because of the things I have to do at home. _____
2. My personal demands are so great that it takes away from my work. _____
3. My superiors and peers dislike how often I am preoccupied with my personal life while at work. _____
4. My personal life takes up time that I'd like to spend at work. _____

Work Interference With Family[a]

5. After work, I come home too tired to do some of the things I'd like to do. _____
6. On the job, I have so much work to do that it takes away from my personal interests. _____
7. My family/friends dislike how often I am preoccupied with my work when I am at home. _____
8. My work takes up time that I'd like to spend with family/friends. _____

[a]FIW is more relevant to situations involving special needs caregivers because they have large family demands, and all of the hypotheses are relevant to FIW; therefore, the data collected for WIF was not used.

APPENDIX G

Job Satisfaction Items

Please answer the following questions about your satisfaction with your work.

Think of the **work** you do at the present. How well does each of the following words or phrases describe your work? Please place an "X" in the appropriate box next to word or phrase.

	Yes	No	Can't decide			Yes	No	Can't decide
Fascinating					Pleasant			
Routine					Useful			
Satisfying					Challenging			
Boring					Simple			
Good					Repetitive			
Gives sense of accomplishment					Uses my abilities			
Respected					Dull			
Uncomfortable					Uninteresting			
Can see results					Creative			

Think of the **pay** you get now. How well does each of the following words or phrases describe your present pay? Please place an "X" in the appropriate box next to each word or phrase.

	Yes	No	Can't decide			Yes	No	Can't Decide
Income adequate for normal expenses					Income provides luxuries			
Fair					Insecure			
Barely live on income					Less than I deserve			
Bad					Well paid			
Underpaid								

Think of the **opportunities for promotion** that you have now. How well does each of the following words or phrases describe these? Please place an "X" in the appropriate box next to each word or phrase.

	Yes	No	Can't decide			Yes	No	Can't decide
Good opportunities for promotion					Unfair promotion policy			
Opportunities somewhat limited					Infrequent promotions			
Promotion on ability					Regular promotions			
Dead-end job					Fairly good chance for promotion			
Good chance for promotion								

Think of the kind of **supervision** that you get on your job. How well does each of the following words or phrases describe this? Please place an "X" in the appropriate box next to each word or phrase.

	Yes	No	Can't decide			Yes	No	Can't Decide
Asks my advice					Tells me where I stand			
Hard to please					Annoying			
Impolite					Stubborn			
Praises good work					Knows job well			
Tactful					Bad			
Influential					Intelligent			
Up-to-date					Poor planner			
Doesn't supervise enough					Around when needed			
Has favorites					Lazy			

Think of the majority of the **people that you work with** now or meet in connection with your job. How well does each of the following words or phrases describe them? Please place an "X" in the appropriate box next to each word or phrase.

	Yes	No	Can't decide			Yes	No	Can't Decide
Stimulating					Talk too much			
Boring					Smart			
Slow					Lazy			
Helpful					Unpleasant			
Stupid					Gossipy			
Responsible					Active			
Fast					Narrow interests			
Intelligent					Loyal			
Easy to make enemies					Stubborn			

Think of the your **job in general**. All in all, what is it like most of the time? Please place an "X" in the appropriate box next to each word or phrase.

	Yes	No	Can't decide			Yes	No	Can't decide
Pleasant					Superior			
Bad					Better than most			
Ideal					Disagreeable			
Waste of time					Makes me content			
Good					Inadequate			
Undesirable					Excellent			
Worthwhile					Rotten			
Worse than most					Enjoyable			
Acceptable					Poor			

APPENDIX H

Life Satisfaction Items

Please answer the following questions about your satisfaction with your life, using the scale below.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Disagree Nor Agree
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 lived my life over, I would change just about nothing. _____

APPENDIX I

Work Withdrawal Items

Please indicate how often the following statements are true for you using the scale below:

1 = Daily
2 = Several times per week
3 = Once per week
4 = Several times per month
5 = Once per month
6 = Several times per year
7 = Never

1. I use the work phone for personal phone calls. _____
2. I am unconcerned about personal appearance or manners at work. _____
3. I make excuses to get out of work. _____
4. I do work that is less than my best. _____
5. I use work equipment for personal purposes without permission. _____
6. I drink or use illicit drugs after work because of things that occur at work. _____
7. I am often late for work. _____
8. It is easy for me to be on time for work. _____
9. I often think about being absent for work. _____
10. I am often absent from work. _____
11. It is easy for me to attend work. _____
12. I often think about quitting my job. _____
13. I would like to quit my job. _____
14. I would retire if I had no financial worries. _____
15. I often think about retiring. _____
16. I wish I could retire from my current job. _____
17. I wish I could retire from work in general. _____
18. If I won the lottery or received a large inheritance, I would retire. _____

APPENDIX J

Standards of Acceptability Scale

0 = Did not occur
1 = Occurred, not severed
2 = Occurred, somewhat severe
3 = Occurred, moderately severe
4 = Occurred, very severe
5 = Occurred, extremely severe

Hassles are irritants that can range from minor annoyances to fairly major pressures, **problems, or** difficulties. They can occur few or many times. Listed below are a number **of ways in** which a person can feel hassled by his/her job. Please use the scale above to **indicate how** hassled you have felt by these job-related concerns:

_____ Job dissatisfaction
_____ Hassles from boss or supervisor
_____ Don't like current work duties
_____ Don't like fellow workers
_____ Worries about decisions to change jobs
_____ Customers or clients giving you a hard time
_____ Problems getting along with fellow workers
_____ Problems on job due to being a man or a woman
_____ Problems with employees

APPENDIX K

Coworker Social Support Items

5 = Strongly Agree
4 = Agree
3 = Neither agree nor disagree
2 = Disagree
1 = Strongly Disagree

Please use the scale above to indicate the extent to which you agree with the following statements.

_____ My coworkers really care about me.
_____ I feel close to my coworkers.
_____ My coworkers take a personal interest in me.
_____ I feel appreciated by my coworkers.
_____ My coworkers are friendly to me.
_____ My coworkers would fill in while I'm absent.
_____ My coworkers are helpful in getting the job done.
_____ My coworkers give useful advice on job problems.
_____ My coworkers assist with unusual work problems.
_____ My coworkers will pitch in and help.

APPENDIX L

Work as an Escape Items

Please indicate how often the following statements are true for you, using the scale described below:

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Disagree Nor Agree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1. I enjoy going to work because it allows me to spend some time away from the stresses of home. _____
2. My time at work provides an escape from the stresses of home. _____
3. Going to work gives me psychological and emotional benefits. _____
4. The break from my caregiving duties that work provides is important to me. _____

APPENDIX M

Resilience Items

Please indicate how often the following statements are true for you, using the scale described below.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Disagree Nor Agree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1. When I make plans, I follow through with them. _____
2. I usually manage one way or another. _____
3. I am able to depend on myself more than anyone else. _____
4. Keeping interested in things is important to me. _____
5. I can be on my own if I have to. _____
6. I feel proud that I have accomplished things in my life. _____
7. I usually take things in stride. _____
8. I am friends with myself. _____
9. I feel that I can handle many things at a time. _____
10. I am determined. _____
11. I seldom wonder what the point of it all is. _____
12. I take things one day at a time. _____
13. I can get through difficult times because I've experienced difficulty before. _____
14. I have self-discipline. _____
15. I keep interested in things. _____
16. I can usually find something to laugh about. _____
17. My belief in myself gets me through hard times. _____
18. In an emergency, I'm someone people generally rely on. _____
19. I can usually look at a situation in a number of ways. _____
20. Sometimes I make myself do things whether I want to or not. _____
21. My life has meaning. _____
22. I do not dwell on things that I can't do anything about. _____
23. When I'm in a difficult situation, I can usually find my way out of it. _____
24. I have enough energy to do what I have to do. _____
25. It's okay if there are people who don't like me. _____

APPENDIX N

Positive and Negative Affect Items

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers.

1 = Very slightly or not at all
2 = A little
3 = Moderately
4 = Quite a bit
5 = Extremely

_____ Interested

_____ Distressed

_____ Excited

_____ Upset

_____ Strong

_____ Guilty

_____ Scared

_____ Hostile

_____ Enthusiastic

_____ Proud

_____ Irritable

_____ Alert

_____ Ashamed

_____ Inspired

_____ Nervous

_____ Determined

_____ Attentive

_____ Jittery

_____ Active

_____ Afraid

APPENDIX O

Demographic Items

Please answer the following questions about your personal characteristics.

1. How many children live in your home? _____

2. What is your gender? Male / Female

3. How would you describe your race?
   a. White/Caucasian
   b. African-American
   c. Hispanic
   d. Asian/Pacific Islander
   e. Native American/Alaskan Native
   f. Other_____

4. What is your marital status?
   a. Single
   b. Single, but live with romantic partner
   c. Married
   d. Widowed
   e. Separated
   f. Divorced

5. How would you describe your annual income?
   a. Less than $25,000
   b. $25,000-$50,000
   c. $50,000-$75,000
   d. $75,000- $100,000
   e. $100,000-$150,000
   f. Over $150,000

6. Are you employed outside the home? Yes / No

7. In the past five years, have you changed jobs? Yes / No

8. If yes, did the change in jobs entail a move to a new community?
   Yes / No / Not Applicable, didn't change jobs

9. If you were offered a job involving an attractive promotion to a new community, how likely would you be to consider it?
   a. Very Likely
   b. Somewhat Likely
   c. Neither Likely Nor Unlikely
   d. Somewhat Unlikely
   e. Very Unlikely

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