The Effects of Social Support on Work-Family Guilt: A Prospective Investigation

by

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A Thesis presented to The University of Guelph

In partial fulfillment of requirements for the degree of Master of Arts in Psychology

Guelph, Ontario, Canada

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ABSTRACT

THE EFFECTS OF SOCIAL SUPPORT ON WORK-FAMILY GUILT: A PROSPECTIVE INVESTIGATION

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The role of received social support in the experience of work-family conflict and guilt was investigated in a sample of 358 dual-earner parents using latent variable path analysis. Additionally, the effects of predictors on reported guilt were analyzed using a prospective sample with data collected three months later (N = 134). Work support for work predicted lower levels of strain-based work interference with family, and both strain- and time-based family interference with work. Work support for family predicted lower levels of time-based work interference with family, and spousal support predicted lower strain-based family interference with work. Work-family conflict experienced at time one predicted work-family guilt in both the cross-sectional and prospective samples, such that decreased conflict was associated with lower levels of work-family guilt. No gender differences were found between pathway coefficients; however, gender differences were found in three categories of received support. Limitations and directions for future research are discussed.
DEDICATION

I would like to dedicate this manuscript to my beloved Grandmother, Margaret Diemer, and to my fearless mother, Cristal Diemer-Ewles. Ever the champions for working women, both have managed to passionately fulfill both work and family roles. Their mentorship has provided me with the strength to persevere through difficult challenges, with the courage to explore new opportunities, and the conviction to constantly strive for new goals. To my mother, I am in awe of your drive and spirit, and I am eternally grateful to have you as my role model. To my grandmother who always demonstrated strength, compassion, and fire, you are greatly missed but never forgotten.
ACKNOWLEDGEMENTS

Firstly, I would like to thank my co-advisors Dr. Karen Korabik and Dr. Peter Hausdorf for their mentorship, support, and guidance throughout my graduate career. Karen has been instrumental in helping me develop my research and critical thinking skills, and I am grateful for the opportunity to have worked with her. Peter brought enthusiasm and insight to the research process; I am thankful for our stimulating and thought-provoking conversations. I would also like to extend my sincere gratitude to my committee members, Dr. Donna Lero and Dr. Tricia van Rhijn, thank you for your insight, contributions, and support throughout this process. In addition, I would like to thank my external examiner, Dr. Gloria González-Morales for your stimulating questions and feedback.

I would also like to thank my fellow I-O graduate students who have made my experience at the University of Guelph both stimulating and enjoyable. In particular, I would like to acknowledge Eugénie L. Saint-Laurent and Jenny Cao for their continued support and positivity. To my partner Tom Gatien, I cannot thank you enough for your optimism and encouragement throughout the past two years. Finally, I would like to thank my parents for their endless love and support, without whom, I wouldn’t be where I am or who I am today.
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Chapter 1. Introduction

For many of today’s employed parents the experience of guilt is an everyday occurrence. This negative emotional state stems largely from competing family and job demands, as many individuals try to balance their increasing work expectations in addition to fulfilling basic family obligations. The stress that results from marginal attempts to fulfill several roles at once increases the potential for the experience of negative outcomes, such as dissatisfaction and guilt.

Much previous research has demonstrated that support from others can help alleviate the detrimental effects associated with work-family (W-F) conflict (Adams, King, & King, 1996; Carlson & Perrewé, 1999); however, there have been no studies to date that have examined the impact of social support on W-F guilt. The purpose of this research was to contribute to the growing body of literature surrounding W-F guilt by examining the effects of social support, from both the work and family domains, on the experience of guilt.

Although research has focused on the effects of moods, emotions, and self-regulation on well-being (Carver & Scheier, 1990; Taylor, 1991) relatively few studies have investigated the role of moods and emotions on the experience of W-F conflict (Heller & Watson, 2005). Nevertheless, emotions such as guilt have emerged as a powerful influence on the experience of undesirable effects associated with W-F conflict, including decreased job and life satisfaction (Hochwarter, Perrewé, Meurs, & Kacmar, 2007). Moreover, emotions, such as guilt, are an important factor to consider when investigating individual adaptation to stressors (Lazarus & Cohen-Charash, 2001); that is, while W-F conflict is a prevailing stress for many individuals the experience of negative emotions, including guilt, may exacerbate the distress experienced (Judge, Ilies, & Scott, 2006). Thus, by failing to study the role of discrete emotions in the
experience of W-F conflict we may have inadvertently ignored a contributing factor to the experience of long-term distress.

While prevalence estimates of W-F guilt remain unknown, previous research has indicated that 70% of working parents report not having enough time to spend with their children as a result of their work demands (Bond, Galinsky, & Swanberg, 1998). Given that conflict between dual-roles has been suggested to lead to feelings of guilt (McElwain & Korabik, 2005), the high incidence of W-F conflict suggests a similar prevalence rate for W-F guilt.

Due to the suggested frequency of guilt and the associated negative consequences that can result for employed parents, the importance of examining the role of guilt within the W-F interface is evident. Additionally, the investigation into how the detrimental effects of W-F guilt on well-being can be alleviated is crucial for the development of real world interventions. As such, the present research explored the relationships between role overload, social support, W-F conflict, and W-F guilt. Additionally, the roles of gender and time- versus strain-based conflict were examined in an exploratory manner. The following sections will delineate the associated literature for each of these domains.

Work-Family Conflict

In recent decades there has been a rise in dual-earner and single-parent households, replacing the more traditional nuclear family. Along with this change there has been a blurring of traditional gender roles within the context of home and work (Korabik, McElwain, & Chappell, 2008). With this transformation of modern gender norms, empirical attention has turned to focus on the intersection of work and family domains, including the permeability of boundaries between domains and the negative and positive effects that can travel from one domain to the other (Ford, Heinen, & Langkamer, 2007). The diversification of the work force has been
accompanied by increased conflict between work and family roles, as the additional demands placed on working parents have clashed with traditional human resource practices that emphasize presence rather than performance (Duxbury & Higgins, 2001). For example, there has been an increase in the work demands placed on employees, such as longer hours and increased workloads (Guest, 2001). Such stressors can cause individuals to experience harmful consequences including increased levels of W-F conflict due to the lack of time available to allocate to either their family or work role, often termed inter-role conflict (Crosbie & Moore, 2004; Kahn et al., 1964).

W-F conflict refers to the negative impact of work stressors on family life and vice versa, which often causes a great deal of psychological discomfort and stress for individuals (Frone, Russell, & Cooper, 1992). The conceptualization of W-F conflict has largely been centered on role theory, which posits that work and family roles result from the expectations of others regarding what is deemed to be appropriate behaviour for a specific role (Kahn et al., 1964). Previous literature has broken down W-F conflict into two reciprocal components, work interference with family conflict (WIFC) and family interference with work conflict (FIWC), each of which is comprised of three separate forms of conflict: time-based, strain-based, and behaviour-based (Greenhaus & Beutell, 1985). Namely, W-F conflict results when the time devoted to, the strain from participating in, or the behaviours required by one role make it difficult to fulfill another role (Greenhaus & Beutell, 1985). It has been argued that WIFC is more prevalent than FIWC because the family domain is more permeable than the work domain. For example, job demands are more regularly permitted within the family domain than vice versa (Eagle, Miles, & Icenogle, 1997).
W-F conflict, within the context of the W-F interface, has been a central topic of research over the past two decades due the relationship between the experience of conflict and subsequent negative individual-level outcomes, including decreased job and life satisfaction (Hochwarter, Perrewé, Meurs, & Kacmar, 2007). However, more recently W-F conflict has been linked to organization-specific factors, such as employee deviance and organizational citizenship behaviours (Jenkins, Heneghan, Bailey, & Barber, 2014). In fact, WIFC partially mediated the relationship between work demands and both interpersonal (e.g., incivility towards coworkers) and organizational deviance (e.g., decreased effort) (Jenkins et al., 2014). Moreover, Nohe and Sonntag (2014) found that WIFC predicted increased levels of turnover intentions over time through the use of a longitudinal design. Thus, W-F conflict is an important issue not only for individuals and families but employers as well, as conflict within the work domain can influence organizational outcomes that are tied to efficacy and profitability.

**Role demands and W-F conflict.** Role demands in the work and family domains have been identified as antecedents to W-F conflict. In the work domain, these antecedents include variables such as long work hours, pressure, and stress at work (Carlson, 1999; Carlson & Perrewé, 1999; Eby et al., 2005). Additionally, unpredictable work routines such as working weekends and rotating shifts have been linked to higher levels of conflict (Shamir, 1983). In the family domain, the antecedents of W-F conflict include demands such as marital conflict, number of hours spent on housework or childcare, and the age of the youngest child (Byron, 2005). Meta-analytic path analyses (Byron, 2005; Ford et al., 2007) have indicated that: 1) among antecedent variables, role overload is the best predictor of W-F conflict; and 2) within-domain relationships between role overload variables and W-F conflict variables are stronger than cross-domain relationships. Thus, work overload has been found to be the strongest
predictor of WIFC, whereas family overload has been identified as the strongest predictor of FIWC.

**Social Support**

With the ever-increasing demands being placed on employees, social support has been viewed as a potential mechanism for combating the negative consequences of inter-role conflict including W-F conflict (Thomas & Ganster, 1995). Traditional conceptualizations of social support have centered around the needs theory of stress, where stress is defined as the presence of unmet needs or the absence of resources for the individual (Jacobson, 1986). Therefore, social support has been defined as the social relationships or resources through which an individual’s needs are met (Jacobson, 1986). Social support is often investigated within the realm of the stressor-strain relationship (Carlson & Perrewé, 1999). Within this literature, stressors refer to the experience of short-term negative life events, such as bereavement or divorce, and long-term chronic strains, which are more persistent conditions that require daily attention (Thoits, 1986). Namely, stressors are environmental conditions that adversely affect health; whereas, strain refers to the individual responses to the stressor (Jex, Beehr, & Roberts, 1992).

**Construct definition.** The construct of social support has been defined as including several facets: forms, types, sources, and objects. The support provided from others can be broken down into three forms: emotional, informational, and instrumental (Jacobson, 1986). Emotional support refers to inputs directed at moderating the emotional reaction to a problem; informational support refers to the advice, guidance, and information that help one achieve a different perspective on a problem; and instrumental support refers to those supports that directly address the source of a problem (Jacobson, 1986). Jacobson (1986) argues that different forms of support are required at different times with emotional support being most useful in times of
crisis, whereas periods of transition require informational support, and instrumental support is most appropriate in deficit states where there continues to be an imbalance between demands and resources.

Social support can be further classified into two types of support, received and perceived. While perceived social support, or the perception that support is available, has consistently been linked with health outcomes, this construct only relates to the perception of accessible resources rather than the actual receipt of social support (Haber, Cohen, Lucas, & Baltes, 2007). It is suggested that, because received support measures require individuals to recall specific instances of supportive behaviour, this subconstruct is a more accurate reflection of the actual support provided within a given situation (Barrera, 1986). Despite this argument, some authors posit that received support may only modify outcomes if it alters the perception of support (Haber et al., 2007). Within the literature, there is disagreement about the relationship between perceived and received support. A review by Dunkel-Schetter and Bennett (1990) implies that there may be a slight association between people’s perception of the support that may be available to them and the support that is actually given when problems arise. However, results from a meta-analysis conducted by Haber et al. (2007) demonstrate that the link between received and perceived support is unlikely, making the distinction between the two types of support that much more salient.

Sources of social support include anyone who is capable of providing support to the individual (Thoits, 1986). These can include sources within the work domain (e.g., coworkers, supervisors, and organizational policies) as well as those in the nonwork domain (e.g., family members, friends, relatives, and neighbours) (Ayman & Antani, 2008). Thoits (2011) argues for two main categories of supporters: significant others and experientially similar others. These
individuals differ in terms of the specific supports they can offer to the distressed individual, such that emotional and instrumental support from significant others, and empathy, active coping assistance, and role modeling from similar others are most effective in terms of alleviating the negative impact from stressors.

In addition to the source of support, the object and context of support provided play a significant role in the relationship between a negative stressor and the experience of distress. Objects of support include work- and nonwork-related issues, that is, the focus of the support provided (Logue & Ayman, 2009). For example, coworkers may provide support for an individual experiencing conflict in the work domain by offering coverage or helping with an individual’s workload. Further, Adams et al. (1996) emphasize that specific forms of conflict may influence different forms of support. Similarly, different types of support may influence different forms of conflict. Jacobson (1986) reasoned that the same supportive behaviour may be perceived as helpful if delivered at the right time and as unhelpful if delivered otherwise. Consequently, social support requires an understanding of not only of the type of support but contextual and temporal dimensions as well (Jacobson, 1986).

**Models of the social support process.** The most common current models or conceptualizations of the support process are the transactional model of stress, support as a coping mechanism, and the stress-buffering model. The transactional model of stress describes an imbalance between an individual’s perceived demands and the availability of resources to meet those demands. In this model, social support from others helps to redress the imbalance either by decreasing the demands, increasing the resources, and/or altering the consequences that arise when one fails to meet demands (Jacobson, 1986).
Social support may also be conceptualized as a coping strategy used to counteract imbalanced transactions (Thoits, 1986). Lazarus (1981) described two forms of support-related coping behaviour: problem-focused coping, where an individual attempts to address the imbalance itself, and emotion-focused coping, which focuses on regulating the emotional response to the problem. Thus, use of a problem- or emotion-focused strategy can help an individual cope with a stressor.

Along with the idea of using social support as a coping strategy, there is a general consensus within the literature that social support may be a moderator of the relationship between stressors and the experience of distress (Barrera, 1986; Cohen & Wills, 1985; Jacobson, 1986). By affecting the appraisal of given life stressors support may buffer the physiological responses to them (Cohen & Wills, 1985). In this way social support may help to alleviate or even eliminate the negative effects that result from various stressors. More specifically, an individual’s perception of the availability of support from others if they require help may change the relationship between the stressful event, the appraisal of the event, and subsequently the stress reaction (Cohen & Wills, 1985). Thus, someone who receives support may have their stress reduced while someone without access to social support may continue to suffer the negative consequences associated with the stress (LaRocco, House, & French, 1980). However, contrary to the suggested benefit of support proposed by the buffering model, some findings suggest the reverse or opposite moderating effects. Namely, excess levels of social support exacerbate the effects of stressors on strains rather than alleviating them (Kaufman & Beehr, 1986, 1989; Viswesvaran, Sanchez, & Fisher, 1999).

Despite the prominence of the moderating or buffering hypothesis, alternative conceptualizations of the relationship between social support and the experience of distress have
been proposed (Barrera, 1986). One of these is the main- or direct-effect model, whereby social support is viewed as an antecedent that directly reduces stress no matter the strength of the stressors experienced (Cohen & Wills, 1985). Another proposed model is the mobilization of resources approach. Here social support is conceptualized as a mediating or intervening variable, such that when stressors are experienced individuals mobilize their support networks to bring about stress reduction (Carlson & Perrewé, 1999).

Cohen and Wills (1985) compared the direct effect (antecedent) and the buffering (moderating) models. They found evidence for the buffering model when a measure of perceived support was used and evidence for the main-effect model when the support was measured by a person’s degree of integration in a larger social network (Cohen & Wills, 1985). They concluded that the type of support measured affects the way in which social support can influence an individual’s well-being (Cohen & Wills, 1985). To further this investigation, Viswesvaran et al. (1999) conducted a meta-analysis to compare various models of support. They found that social support: 1) directly reduced strain (direct antecedent model), 2) reduced the strength of stressors (indirect antecedent model), and 3) alleviated the effects of stressors on strain (moderating model). They did not find evidence for a mediation or mobilization of resources model. It should be noted, however, that almost all of the studies in their database were cross-sectional in nature and used measures of perceived rather than received support.

Barrera (1986) argues that the broader concept of social support should be discarded for more specific models of the stress-distress relationship geared towards specific forms of social support. Current interpretations of social support view the construct as a “meta-construct” which consists of several subconstructs including both perceived and received support (Haber et al., 2007).
The distinction between received and perceived support calls for a more suitable model to assess the role of received support on the relationship between stressful life events and the distress experienced. Barrera (1986) argued that enacted support, which assesses the quantity of support provision, is positively related to stressful events, and subsequently mediates the relationship between the stressor and the distress experienced. Based on this interpretation, it is suggested that the link between stress and social support can be interpreted as the activation of enacted support as a result of experiencing a stressful situation (Barrera, 1986; Thoits, 1986).

Cohen and Wills (1985) have proposed that the relationship between stressors, strains, and support depends on the specific features of each. This notion is referred to as the specificity hypothesis, which posits that, in order to reduce specific strains, the right kind of support from the right source needs to match the type of stressor faced (Cohen & Wills, 1985). This hypothesis can be applied to the W-F interface by examining the individual features of each component of social support in relation to WIFC and FIWC including a breakdown of the source and object of support.

**Social Support and Work-Family Conflict**

In the context of the W-F interface, stressors refer to the role demands (i.e., role overload) that are antecedent to the experience of W-F conflict, stress refers to the experience of conflict itself, and strain refers to the resulting distress or the negative outcomes experienced. Previous literature on where social support should be situated in models of the W-F interface has yielded mixed results (Ayman & Antani, 2008).

**Models of social support and W-F conflict.** Paralleling the general social support literature, it has been variously proposed that: 1) social support is an antecedent to stressors (work and family overload), 2) social support is a direct antecedent to W-F conflict, 3) social
support is a mediator of the relationship between role overload and W-F conflict, and 4) social support is a moderator of the relationships between role overload and W-F conflict.

In the first proposed model, social support is conceptualized as having a direct effect on perceived stressors (i.e., work and family overload) and an indirect effect on the resulting experience of stress (WIFC and FIWC) by acting through the perceived stressors (Carlson & Perrewé, 1999) (See Figure 1). As a result, individuals who perceive the availability of a strong supportive network may be less likely to interpret potential work and nonwork demands as stressful (Carlson & Perrewé, 1999). This model is roughly equivalent to the indirect antecedent model from the general support literature. Confirmation of this model has been demonstrated in several studies within the W-F literature (Fisher, 1985; Schaubroeck, Cotton, & Jennings, 1989). However, this model is thought to be most applicable when examining chronic or long-term stress (Carlson & Perrewé, 1999).

According to the second proposed model, support acts as a direct antecedent to WIFC and FIWC, and thus to the experience of stress (Ayman & Antani, 2008). In this model, social support is viewed as an independent antecedent to W-F conflict and is not related to the stressor variables in the model (Carlson & Perrewé, 1999). More specifically, those who feel they have a strong social support network perceive the ability to cope with W-F conflict independently of the amount of work and family overload they are experiencing (See Figure 2).
The mediation model of social support places support in the causal path between stressors, W-F conflict and strains (Carlson & Perrewé, 1999) (See Figure 3). This model corresponds to the intervening variable or mobilization of resources model from the general support literature. For this model, Carlson and Perrewé (1999) argue that, once the stressor (work or family overload) has been experienced, the individual then seeks out support from their social network, which can decrease the effects of stressors on the experience of stress (WIFC or FIWC). This model has received some support within the literature (Johnson, Thomas, & Riordan, 1994; Sheffield, Dobbie, & Carroll, 1994).

The final model of social support views support as a moderator of the relationship between role overload and W-F conflict (See Figure 4), such that less stress will be experienced...
when levels of social support are high (Carlson & Perrewé, 1999). This model is equivalent to the buffering model in the general social support literature. Previous research investigating the moderating effects of social support has yielded mixed results (Ayman & Antani, 2008; Viswesvaran et al., 1999).

Figure 4. Social Support as a Moderator

Carlson and Perrewé (1999) conducted a study to compare these four models. They found that the indirect antecedent model (support as an antecedent to demands) had the best fit. However, they utilized a measure of perceived support in their research.

Methodological Problems with the Literature

Despite the general consensus within the greater W-F literature about the need to separate the distinct components of W-F conflict, WIFC and FIWC (Byron, 2005), this distinction has rarely occurred within the realm of social support as it pertains to W-F conflict. Meta-analytic findings have demonstrated the presence of both WIFC and FIWC in addition to their unique antecedents, suggesting the need for a differential understanding of the potentially unique interventions or solutions (i.e., social support) required by individuals to cope with each specific
form of role conflict (Byron, 2005). In addition, studies rarely examine the effects of the different subtypes of conflict (e.g., time-based vs. strain-based). This failure to separately analyze the directions or the subtypes of W-F conflict has limited the understanding of the role of social support within the W-F interface.

The existing literature on social support as it applies to the W-F interface has also been limited due to its methodology. First, the majority of research to date has centered on support in general rather than on support specifically for W-F balance (Ayman & Antani, 2008). Recent meta-analytic results have demonstrated that W-F specific constructs, as opposed to more general constructs of supervisor support and perceived organizational support, are more strongly related to W-F conflict (Kossek, Pichler, Bodner, & Hammer, 2011). Along this line, Warner (2011) also found that coworker support specifically for W-F balance was more strongly related to W-F constructs, including conflict and enrichment, than was general coworker support. Thus, work-related support specifically geared towards W-F issues plays a significant role in employees’ experiences of W-F conflict (Kossek et al., 2011; Warner, 2011).

Second, as can be seen from the above, the large majority of studies have only looked at perceived support and there has been a failure to differentiate perceived from received support in model formulation and testing. It may be that different models (i.e., antecedent versus intervening variable) are more relevant for perceived versus received support. Perceptions that support is available if needed may have a protective function, mitigating the extent to which role demands are perceived to be stressful. By contrast, once role overload is experienced, individuals may attempt to mobilize their support networks in order to receive support.

The findings of two studies on received coworker support are consistent with the support mobilization perspective. They demonstrate that, when individuals are experiencing higher levels
of W-F conflict, they are more likely to be offered, and to utilize, support from their coworkers. Namely, Antani and Ayman (2004) found that as levels of FIWC increased, so did the amount of support received from coworkers for their work domain issues. Similarly, Mesmer-Magnus, Murase, DeChurch, and Jimenez (2008) found that both WIFC and FIWC were positively associated with the extent to which workers supported their colleagues by providing them with informal work accommodations.

Third, traditional investigations of social support have focused on same-domain relationships (e.g., work-related sources of support as providers of instrumental support for work issues) (Ayman & Antani, 2008; Kauffman & Beehr, 1986). The neglect of cross-domain relations between stressors and support has created a relatively narrow understanding of the greater social support construct.

**The Present Study**

In order to address these issues, a measure of received social support specifically for W-F issues was used in the present study. This measure assessed the degree of instrumental and emotional support received from sources in both the work and nonwork domains for work- and family-related issues (Antani, 2007). As the general social support literature claims, received support disrupts the causal path between work stressors and strains. More specifically, social support can reduce the negative impact of stressors (i.e., work and family overload) on the experience of stress (i.e., WIFC and FIWC) (Barrera, 1986; Carlson & Perrewé, 1999; Thoits, 1986). Therefore, due to the use of a measure of W-F specific received support, social support was conceptualized as an intervening variable, which mediates the relationships between stressors and stress (see Figure 2).
In order to address the aforementioned need for research to separate W-F conflict into the distinct WIFC and FIWC components, in addition to examining both within- and cross-domain relationships, Antani (2007) hypothesized social support to consist of four subconstructs: 1) work support for work issues, 2) nonwork support for family issues, 3) work support for family issues, and 4) nonwork support for work issues. The theoretical model for this study is presented in Figure 5. The following sections will delineate the associated hypotheses.
Figure 5. Proposed theoretical model to test the mediating effects of social support on WIF and FIW guilt.
**Role overload and received social support.** As was previously stated, the use of an intervening variable model was hypothesized as being most applicable when using a measure of received support. According to this rationale, support networks will be mobilized upon the experience of a stressor (Barrera, 1986). Researchers using diary data have found some evidence for this contention. For example, research on emotional support provision in couples has demonstrated that the number of daily stress events reported by support recipients is positively correlated with the amount of support that they received from their partners (Iida, Seidman, Shrout, Fujita, & Bolgar, 2008). Similarly, in a study using time-lagged data, Seiger and Wiese (2009) found that the amount of family strain experienced by working mothers was positively correlated with the levels of coworker support they received the following day.

Extending these results, it is expected that within the work and family domains, the experience of role overload will lead to an activation of one’s social support network. Due to the likelihood that same-domain stressors will result in same-domain supports, the following hypotheses were put forth (see Figure 5).

*H1a:* Higher levels of work overload will be associated with higher levels of support from work sources for work domain issues.

*H1b:* Higher levels of work overload will be associated with higher levels of support from nonwork sources for work domain issues.

*H2a:* Higher levels of family overload will be associated with higher levels of support from work sources for family domain issues.

*H2b:* Higher levels of family overload will be associated with higher levels of support from nonwork sources for family domain issues.
Support from work sources for work-related issues and W-F conflict. Social support within the context of work can come from peers, supervisors, or the organization (Ayman & Antani, 2008; Carlson & Perrewé, 1999), and has been associated with lower levels of W-F conflict (Carlson & Perrewé, 1999; Goff, Mount, & Jamison, 1990; Parasuraman, Greenhaus, & Granrose, 1992). Previous research has generally demonstrated the finding that support from work sources is associated with lower levels of WIFC (Nohe & Sonntag, 2014; Behson, 2005; Frone, Yardley, & Markel, 1997; Thomas & Ganster, 1995). In particular, Antani (2007) found that supervisor support specifically for work issues was negatively associated with WIFC. Moreover, Antani and Ayman (2004) found that higher levels of coworker support for work issues were associated with lower levels of FIWC. Therefore, it was expected that received support from work domain sources for work issues would be associated with lower levels of W-F conflict (see Figure 5):

H3a: Higher levels of support from work domain sources for work issues will be associated with lower levels of WIFC.

H3b: Higher levels of support from work domain sources for work issues will be associated with lower levels of FIWC.

Support from nonwork sources for family-related issues and W-F conflict. Support from family and nonwork sources has been linked to a reduction in W-F conflict (Holohan & Gilbert, 1979). In an examination of received support, Antani and Ayman (2004) found that family members offered the greatest level of support for W-F issues. According to Adams and colleagues (1996) family members have an opportunity to provide both emotional and instrumental support. Emotional spousal support is defined as the emphatic understanding, listening, giving of advice, and genuine concern for the partner, whereas instrumental support
from the partner eases the burdens of demands in the family domain, thereby freeing time for the partner to devote to work (Aycan & Eskin, 2005).

Previous research has demonstrated a negative relationship between spousal support and W-F conflict; that is, higher spousal support was associated with decreased levels of W-F conflict (Aycan & Eskin, 2005). Further, emotional and instrumental support from nonwork sources has been linked to lower levels of FIWC (Adams et al., 1996). Therefore, it was expected that received support from nonwork domain sources for family issues would be associated with lower levels of W-F conflict (see Figure 5).

\textbf{H4a:} Higher levels of support from nonwork domain sources for family issues will be associated with lower levels of WIFC.

\textbf{H4b:} Higher levels of support from nonwork domain sources for family issues will be associated with lower levels of FIWC.

\textbf{Support from work sources for family-related issues and W-F conflict.} There are few empirical studies to date that have examined the effects of social support in cross-domain relationships consistent with the W-F conflict cross-domain phenomena (Wellman, 1981), such as using support from sources at work for family-related issues. In one such study, Lapierre and Allen (2006) examined the cross-domain effects of supervisor support for family, which was found to be associated with lower levels of W-F conflict. In a more detailed analysis, Antani and Ayman (2004) examined respondents’ reported levels of instrumental and emotional received support from work domain sources. They found that higher levels of work support for family issues were associated with lower levels of FIWC (Antani & Ayman, 2004). Based on the above, it was expected that received support from work domain sources for family issues would be associated with lower levels of W-F conflict (see Figure 5).
**H5a:** Higher levels of support from work domain sources for family issues will be associated with lower levels of WIFC.

**H5b:** Higher levels of support from work domain sources for family issues will be associated with lower levels of FIWC.

**Support from nonwork sources for work-related issues and W-F conflict.** Social support from family and friends has been more strongly associated with general levels of well-being compared to the moderate associations found with work-related strains (Adams et al., 1996; Ayman & Antani, 2008). Antani and Ayman (2004) report that family members frequently provide support to workers for work domain issues. Moreover, the cross-domain effects of family support for work-domain issues have been associated with lower levels of W-F conflict (Lapierre & Allen, 2006). Based on this, it was expected that received support from nonwork domain sources for work issues would be associated with lower levels of W-F conflict (see Figure 5):

**H6a:** Higher levels of support from nonwork domain sources for work issues will be associated with lower levels of WIFC.

**H6b:** Higher levels of support from nonwork domain sources for work issues will be associated with lower levels of FIWC.

**FIWC and WIFC.** Previous research has indicated that specifying a unidirectional path between FIWC and WIFC may improve overall fit (Somech & Drach-Zahavy, 2011). Rather than the hypothesized reciprocal relationship between FIWC and WIFC (Carlson & Kacmar, 2000; Frone et al., 1992), previous research has found a stronger relationship from FIWC to WIFC than vice versa (Michel, et al., 2009). Therefore, it was expected that (see Figure 5):

**H7:** Higher levels of FIWC will be associated with higher levels of WIFC.
Social support and time-based versus strain-based conflict. Previous research on the relationship between social support and W-F conflict has found that perceived support can differentially affect the subcomponents of W-F conflict (i.e., time-based and strain-based) (Greenhaus & Parasuraman, 1994), particularly when examined within the context of gender (Van Daalen, Willemsen, & Sanders, 2006). For instance, Val Daalen et al. (2006) found that men reported lower strain-based FIWC as a result of coworker support and decreased strain-based FIWC as a result of supervisor support. Conversely, women reported a positive association between supervisor support and time-based WIFC, such that higher levels of support were associated with increased conflict. However, this relationship has not been examined within the context of received social support. Therefore, the role of time- and strain-based conflict within the theoretical model was investigated in an exploratory manner.

Research Question 1: Are there differences in the relationship between different sources of social support and time-based versus strain-based conflict?

W-F conflict as a mediator of the relationship between support and outcomes. Social support from both work and nonwork sources has been linked to a wide variety of positive outcomes. For example, supportive supervisors have been associated with higher job satisfaction and organizational commitment, and lower absenteeism (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Goff et al., 1990; Parasuraman et al., 1992).

In regard to same domain relationships between work stressors and outcomes, Blanch and Aluja (2012) examined the mediating effects of W-F conflict and found that WIFC fully mediated the relationship between support from nonwork sources and burnout for men and between support from work sources and burnout for women (Blanch & Aluja, 2012). For women, a supportive work environment was more strongly associated with fewer negative
outcomes (burnout). For men support provided by nonwork sources reduced burnout via lower WIFC; however, women did not experience this relationship to the same degree. Similarly, Antani (2007) found that WIFC fully mediated the relationship between supervisor support for work issues and turnover intentions.

A body of research has accumulated demonstrating that social support can have a beneficial effect on the experience of W-F conflict and that W-F conflict mediates the relationship between social support and certain negative outcomes, such as burnout and turnover intentions. In other words, by decreasing W-F conflict, social support can help to alleviate the detrimental consequences of role overload. However, no research to date has examined the role of social support on other outcome variables, such as W-F guilt. In the present study it was proposed that WIFC and FIWC mediate the relationships between the social support variables and W-F guilt (see Figure 5).

**Work-Family Guilt**

Despite the empirical interest in supporting individuals who are attempting to balance the responsibilities associated with both their work and family roles, the experience of guilt within the context of the W-F interface remains under researched. It has been suggested that the negative side effects associated with inter-role conflict can lead to feelings of guilt, which can result in negative repercussions in both the work and family domains (McElwain & Korabik, 2005).

Guilt has been viewed as both a state and a trait, with state guilt representing a temporary, affective state, and trait guilt as a continuing dispositional tendency (Jones, Schratter, & Kugler, 2000). Moreover, guilt has been conceptualized in terms of the strength of one’s moral standards (Jones et al., 2000). In this context, guilt is often defined as the negative feeling that stems from a
set of internalized standards and the belief that an individual should have acted, thought, or felt differently in a given situation (Kubany, 1994). Further, Kubany (1994) argues that the extent to which an individual experiences guilt after an event is due to five factors: the perception of responsibility, a lack of justification for the behaviour, the violation of values, the lack of foresight, and the failure to prevent the negative event.

Until recently, research examining guilt in the context of the W-F interface has focused on guilt in general rather than guilt specifically related to W-F issues. For example, one of the earliest studies in this area found that women between the ages of 25 and 39 reported significantly higher levels of guilt as a result of competing work and family role demands (Nevill & Damico, 1977), thereby highlighting the specific nature of guilt as it relates to the W-F interface. Qualitative research suggests that for women guilt may stem from feeling that traditional homemaker duties have been neglected for non-traditional gender roles such as paid employment (Napholz, 1999). Although men did not report feeling the same emotions, research by Loscocco (1997) suggests that their guilt may be linked to the inability to provide for the family. Similarly, Greenhaus and Beutell (1985) believe that guilt may be a self-imposed sanction for behaviour that is incongruent with gender-role expectations (e.g., a man who stays at home to care for children while his wife works may experience feelings of guilt).

**Measurement of W-F guilt.** Research on W-F guilt has proliferated during the past decade due to the development of a standardized measure, the Work-Family Guilt Scale (WFGS) (McElwain, 2002). For the construction of this measure, McElwain combined research from both the W-F and the guilt literatures to define the construct. For this scale, W-F guilt was defined as a measure of the intensity of the negative feeling experienced when an individual is unable to fulfill incompatible roles. McElwain (2008) further argued that these feelings represent the
situation-specific affect that arises when one believes they have harmed another. As with W-F conflict, it is argued that W-F guilt is bidirectional and consists of work interference with family guilt (WIFG) and family interference with work guilt (FIWG) (McElwain, 2008).

The original WFGS was intended to be a unidimensional measure. In developing it, McElwain (2002) began with an item pool that consisted of 72 items covering general content related to both WIFG and FIWG. These items were reduced to 14 items (WFGS-14) by eliminating items through a series of reliability and validity analyses (McElwain, Korabik, & Chappell, 2004). The 14-item version revealed acceptable reliability for both WIFG and FIWG subscales (α = .87 and α = .85, respectively) (Chappell, Korabik, & McElwain, 2005). Removing items with low item-total correlations resulted in the reduction of the scale to the final 7-item version.

The factor structure, reliability, and validity of the scale were assessed with a sample of 448 Canadian employees who were married and had at least one child under 21 residing with them, as well as with a subgroup of this sample (N = 256) on whom prospective data were also collected three months later\(^1\). In both cases, confirmatory factor analyses revealed a two factor structure with the four WIFG items loading on one factor and the three FIWG items loading on the other (McElwain, 2008). The measurement equivalence of the scale for gender for the Canadian sample, as well as for culture with a sample from ten countries, was also established. The WFGS demonstrated high internal consistency at the construct level (α = .77 for the original sample and .81 for the prospective sample), as well as for both the WIFG (α = .86 for the original sample and .86 for the prospective sample) and FIWG (α = .74 for the original sample and .81

\(^1\) This study was based on the Project 3535 Canadian sample, which was also used for the present analyses.
for the prospective sample) subscales (McElwain, 2008). Both the data from the cross-sectional and the prospective samples showed evidence of excellent convergent, discriminant and construct validity (McElwain, 2008). Additionally, the scale demonstrated adequate test-retest reliability (WFGS: .60; WIFG: .73; FIWG: .50) (McElwain, 2008).

While the research surrounding W-F guilt is still emerging, it has been argued that the construct may possess several subdimensions. Hoffman (1982) proposed three components of W-F guilt: an affective component, a motivational component, and a cognitive dimension. The affective component refers to the unpleasant feelings associated with the understanding that one’s actions have had negative consequences. The motivational component refers to the feelings of wanting to change the outcome of the action. The cognitive dimension refers to understanding that one has caused harm to another.

Similarly, results from qualitative analysis of focus group data conducted by McElwain (2008) highlighted three subfactors of W-F guilt: physical, emotional, and psychological. McElwain (2008) argues that these results provide evidence for three separate forms of guilt, with the most common form being physical guilt, or the inability to meet the time demands placed on an individual from both the work and family domains. In combination, these results further highlight the multidimensional nature of the W-F guilt construct as proposed by the WFGS (McElwain, 2008). This subsequently led McElwain (2008) to develop a faceted measure- the W-F Guilt Scale-revised (WFGS-R). This 24-item measure has been shown to have two higher order factors (WIFG and FIWG), each with three lower order factors (representing physical, emotional and psychological guilt).

**Research using the WFGS.** The relationship between W-F conflict and W-F guilt has been well documented within the guilt literature. For example, Aycan and Eskin (2005) found a
significant positive correlation between WIFC and guilt for both women and men. Several studies that have used the Canadian or US data from the Multi-National Work-Family Research Project (Project 3535) have revealed significant within-domain and/or cross-domain positive correlations between WIFC and WIFG, and FIWC and FIWG (Ishaya, Ayman, & Korabik, 2013; Korabik & Lero, 2004; Korabik, McElwain, & Lero, 2009; McElwain et al., 2004). Preliminary findings from the Canadian Project 3535 data have also demonstrated that greater work overload was associated with higher levels of WIFC and WIFG (Korabik & Lero, 2004). Similarly, higher family overload was associated with higher FIWC, FIWG, and WIFG. More specifically, overload and conflict from the family domain were positively related to both WIFG and FIWG (Korabik & Lero, 2004). A qualitative investigation of W-F guilt conducted by McElwain (2008) found that while participants experienced guilt in both the WIF and FIW directions, guilt felt towards family demands was greatest, particularly in regards to their children.

In an attempt to further understand the factors contributing to W-F guilt, the role of overload and control was investigated using the US Project 3535 data. The findings indicated that overload had both within- and cross-domain effects on both WIFG and FIWG (Ishaya et al., 2013). Job control, however, had only a within-domain effect in predicting lower levels of WIFG (Ishaya et al., 2013). In a follow-up study using the Canadian Project 3535 data set it was found that while both work and family overload intensified guilt, the predictors of guilt were influenced by the domain under investigation (Ewles, Korabik, & Lero, 2013). For example, family control only helped alleviate WIFG (Ewles et al., 2013).

Korabik, McElwain, and Lero (2009) used the Canadian Project 3535 data to investigate whether or not guilt partially mediated the relationship between W-F conflict and outcomes.
They found that while WIFC predicted job satisfaction and FIWC predicted family satisfaction, no significant relationships were found between either WIFG or FIWG and the satisfaction variables. However, using a different sample and the revised Work-Family Guilt Scale (McElwain, 2008), WIFG was found to partially mediate the relationship between WIFC and turnover intent (Korabik et al., 2009). Research into W-F guilt remains in its preliminary stages with further study required on how to alleviate the negative effects associated with W-F guilt.

Based on the findings cited above, it was expected that (see Figure 5):

- **H8**: There will be a significant positive relationship between WIFC and WIFG.
- **H9**: There will be a significant positive relationship between FIWC and FIWG.

**Gender Differences**

An additional purpose of this study was to examine gender differences in the relationships among role overload, social support, W-F conflict, and W-F guilt. Much research indicates that men and women often experience the W-F interface differently, however, findings in this area are extremely contradictory (Korabik et al., 2008). As a result, the role of gender in the present study was examined in an exploratory manner.

**Qualitative research on gender and W-F guilt.** While the experience of guilt has been shown to positively relate to psychological distress (Jones & Kugler, 1993) it has been suggested that this relationship may be stronger for women (Simon, 1995). To date, much of the available research on W-F guilt has been qualitative in nature with samples comprised solely of women (Korabik, 2014). This research has primarily involved a discussion of the effects of guilt stemming from maternal responsibilities, particularly as a result of societal pressures surrounding role expectations (Guendouzi, 2006). More specifically, participants often reported feelings of
guilt and other negative emotions as a result of a lack of time spent with their children (Elvin-Nowak, 1999; Napholz, 2000; Seagram & Daniluk, 2002).

Preliminary qualitative findings from Project 3535 revealed that not only do women from various countries experience guilt as a result of competing work and family demands (Bardoel, 2004; Desai & Rajadhyaksha, 2004; Drach-Zahavy & Somech, 2004; Huang, 2004; Korabik & Lero, 2004; Velgach, Ishaya, & Ayman, 2005), but different themes emerge depending on the country of origin (McElwain, 2008). For example, women from Australia describe the need to be “superwoman” by wholly fulfilling both work and family roles (Bardoel, 2004), whereas women from Indonesia, Taiwan and Israel reported experiencing guilt as a result of being unable to fulfill traditional gender roles (Korabik, 2005). In a qualitative study of help seeking behaviour with W-F conflict, it was found that nine out of fifteen women, and three out of five men described feeling guilty in their daily lives (McElwain, Korabik, & Lero, 2007).

**Quantitative research on gender and W-F guilt.** While quantitative research in W-F guilt is still in its infancy, preliminary research has provided some insight into the complex nature of guilt, particularly as it relates to gender. For example, in a study conducted by Glavin, Schieman, and Reid (2011) examining the effects of boundary-spanning work demands (i.e., experiencing job demands outside of work) on the experience of guilt, it was found that frequent work contact was associated with higher levels of distress in women. This result confirmed the finding from Simon (1995) that guilt is a distinguishing factor between men and women’s experiences within the W-F domain. However, the study conducted by Glavin et al. (2011) utilized a single item measure of guilt which, given the multi-dimensional nature of the construct, may not have accurately measured individual experiences of W-F guilt.
Research into the bidirectional nature of guilt (WIF and FIW) has provided mixed results. For example, Aycan and Eskin (2005) found a significant positive correlation between WIFC and guilt for both women and men; however, women reported higher levels of guilt than men. By contrast, McElwain (2008) found no gender differences. Interestingly, in an examination of gender-role attitudes, Chappell et al. (2005) found that traditional men reported experiencing less FIWC and FIWG than egalitarian men, and that egalitarian men reported higher levels of FIWC and FIWG than egalitarian women; however, no significant gender differences were found for WIFC or WIFG (Chappell et al., 2005). Conversely, results from Livingston and Judge (2008) indicate that individuals with traditional gender-role attitudes experienced higher levels of guilt from FIWC, whereas egalitarian individuals experienced higher levels of guilt from WIFC. It was found that traditional men experience a stronger relationship between FIWC and guilt than egalitarian men or women (Livingston & Judge, 2008).

McElwain et al. (2004) expanded the research on the influence of gender by examining the role of gender-role orientation within the context of W-F guilt. Results indicated that W-F guilt was significantly related to gender-role orientation, such that individuals who were lower in instrumentality (feminine and undifferentiated) were significantly more likely to experience higher levels of FIWG compared to those higher in instrumentality (masculine and androgynous individuals). This finding suggests that it may not be gender itself that differentiates individual experiences of W-F guilt. Rather, gender-role orientation plays a contributing role in the experience of guilt, particularly in the family domain, as there were no gender-role differences found in WIFC or WIFG.

**Social support and W-F guilt.** In addition to the mixed findings surrounding gender and W-F guilt, there also appear to be inconsistent results with regards to the effects of gender on
social support. Two studies, however, have shown that different sources of support have a differential impact on the W-F conflict experienced by men versus women (Aycan & Eskin, 2005; Van Daalen et al., 2006). Due to the limited research available, the role of gender within the context of the theoretical model was examined in an exploratory manner.

Research Question 2: Are there gender differences in the relationships among role overload, social support, W-F guilt and W-F conflict?

Contributions of the Present Study

Given that the research on W-F guilt is relatively new with few studies to date using a standardized measure of W-F guilt, there is a significant need for continued investigations into the role of W-F guilt within the W-F interface (Loscocco, 1997; Simon, 1995). Additionally, the role of social support within the context of W-F guilt remains unknown.

The present study examined the role of social support for work and family issues from sources in both the work and nonwork domains on the experience of W-F conflict and W-F guilt. Particularly, the effects of stressors on the experience of W-F conflict (both WIFC and FIWC) and W-F guilt (both WIFG and FIWG) were investigated using within- and cross- domain supports. Work and family overload were conceptualized as the stressor variables within the model as they have been previously shown to increase both W-F conflict (Aycan & Eskin, 2005; Clark, 2001) and W-F guilt (Ishaya et al., 2013). The proposed research used a prospective data set to investigate the role of social support at time one in terms of alleviating the negative effects of W-F guilt at time two. The use of a prospective design eliminates the potential for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

The present study makes five significant contributions to the growing body of research surrounding W-F guilt by: 1) investigating the role of social support within the context of the
relationship between W-F conflict (both WIFC and FIWC) and W-F guilt (both WIFG and FIWG), 2) examining both the within- and cross-domain relationships between social support and W-F conflict, 3) investigating the role of social support on both time- and strain-based conflict, 4) utilizing a prospective design to analyze these relationships over time, more specifically, the short-term effects of received social support on the relationship between W-F conflict (both WIFC and FIWC) and W-F guilt (both WIFG and FIWG), and 5) investigating the impact of gender.

Chapter 2. Method

Participants

Participants for the current study came from a previously collected sample. Data collection was part of a larger two-wave study on work-family balance\(^2\) in a variety of occupational sectors including education, health, and manufacturing (\(N = 652\)). Organizations were contacted by the research team and informed of the research goals pertaining to an examination of work-life balance across cultures. Participants were contacted through their respective organizations. The sample included 349 men and 303 women, all of whom resided in Canada and came from varying occupations and ethnic and socioeconomic backgrounds.

Participation in the present study was limited to those who were married or currently living with

\(^2\) The surveys were designed as part of a larger multinational research program (Project 3535). I would therefore like to acknowledge the contribution of the Project 3535 research team to the theoretical and empirical conceptualization of this research. The team consists of (in alphabetical order): Dr. Zeynep Aycan (Turkey), Dr. Roya Ayman (USA), Dr. Anne Bardoe (Australia), Dr. Tripti Pande Desai (India), Dr. Anat Drach-Zahavy (Israel), Dr. Leslie Hammer (USA), Dr. Ting-Pang Huang (Taiwan), Dr. Karen Korabik (Canada), Dr. Donna S. Lero (Canada), Dr. Artiwardi Mawardi (Indonesia), Dr. Steven Poelmans (Spain), Dr. Ujvala Rajadhyaksha (India) and Dr. Anit Somech (Israel) and Dr. Li Zhang (China). More specifically, these surveys were collected as part of the Canadian component that was administered by Dr. Karen Korabik and Dr. Donna S. Lero of the University of Guelph. The research was funded by a grant from the Social Science & Humanities Research Council of Canada.
a partner, had at least one unmarried child living at home, and were employed by an organization. Of the original sample, 213 men and 143 women (two individuals did not specify their gender) who participated in wave one data collection met the inclusion criteria ($N = 358$). Table 1 displays the demographic characteristics for the wave one sample. Additionally, only participants who completed both waves of the survey were included in the final prospective sample. Of the wave two sample ($N = 365$), 65 women and 69 men met the inclusion criteria ($N = 134$). Table 2 displays the demographic characteristics for the wave two sample.

**Measures**

**Demographics.** Demographic information was collected using single-item questions pertaining to the family, such as the family constellation and the number and age of children living at home, in addition to participant information regarding age, education level, job type (managerial/non-managerial), schedule, and income level.

**Work overload.** The Work Overload measure (Peterson et al., 1995), which was initially adapted from work by Pareek (1976) and House and colleagues (1983), assessed the level of individual overload in the work domain using four items on a 6-point scale ranging from (1) *strongly disagree* to (6) *strongly agree*, with higher scores indicating higher levels of work overload. A fifth item was added by the Project 3535 research team (see appendix A). Preliminary results from Project 3535 have shown that this measure has excellent reliability. Specifically, internal consistency reliabilities ranged from $\alpha = .81 - .97$ across participating countries (McElwain, 2008).

**Family overload.** The Family Overload measure was adapted from the Work Overload measure created by Peterson and colleagues (1995). This measure assessed the level of individual overload in the family domain using four items on a 6-point scale ranging from (1)
strongly disagree to (6) strongly agree, with higher scores indicating higher levels of family overload. A fifth item was added by the Project 3535 research team (see appendix B).

Preliminary results from Project 3535 have shown that this measure has good reliability. Specifically, internal consistency reliabilities ranged from $\alpha = .68 - .95$ across the participating countries (McElwain, 2008).

**Social support.** The Social Support measure (Antani, 2007) assessed the instrumental and emotional received support from seven sources on nine items using a 4-point scale ranging from (1) Never to (4) Frequently, with an option for items that are not applicable. Items assess received instrumental and emotional support for various tasks in both the work and family domains including: childcare, help with household tasks, work-related duties, etc. (see appendix C). For the analyses in this study, scores of not applicable were considered to be missing data. An additional item assesses general satisfaction with received support from the various sources on a 5-point scale ranging from (1) Very Dissatisfied to (5) Very Satisfied, with an option for items that are not applicable. This item was not included in the analyses for the present study.

Items were grouped for analysis in terms of the source and target of support [e.g., work support for work (WSW), nonwork support for work (NWSW), nonwork support for family (NWSF), and work support for family (WSF)]. Work sources of support included coworkers/subordinates and supervisors and nonwork sources included partner/spouse; child(ren); parents or parents-in-law; household helpers; and neighbours, friends, or relatives.

Composite variables were created by taking the mean of individual scores for all items pertaining to the specified category (e.g., work support for work). Each item was comprised of the type of support (e.g., emotional or instrumental) provided from each source (e.g., work support for work). For example, emotional work support for work (i.e., from supervisors or
coworkers/subordinates) includes items like: “How often do you receive support in the form of listening to and discussing work-related problems?” and “How often do you receive support with respect to encouragement/appreciation regarding events in your work life?” Instrumental support includes items like: “How often do you receive support with respect to your work-related duties?” and “How often do you receive support with respect to helpful work-related information (e.g., advice, suggestions)?” This distinction may provide additional insight into the nature of the relationship between the variables under investigation.

**Work-family conflict.** Due to concerns surrounding the psychometric properties of the behaviour-based dimension of W-F conflict (Milkie, Denny, Kendig, & Schieman, 2010) these items were excluded from data collection. Instead, the time-based and strain-based WIFC and FIWC items from Carlson, Kacmar, and Williams’ (2000) measure of Work-Family Conflict were used. The 12 items were evaluated on a 6-point scale ranging from (1) *strongly disagree* to (6) *strongly agree* (see appendix D). Higher scores represented higher levels of conflict. The work-family conflict measure has been shown to possess discriminant validity, invariance of the factor structure, and each of the dimensions was shown to differentially relate to antecedents and consequences of W-F conflict, thereby suggesting predictive validity. Additionally, adequate internal consistency was shown for each of the six dimensions of W-F conflict, with reliabilities exceeding the conventional $\alpha = .70$ (Nunally, 1978).

**Work-family guilt.** The Work-Family Guilt Scale (WFGS; McElwain, 2002) assessed the intensity of the negative feeling associated when an individual was unable to fulfill incompatible roles. This measure included seven items on a 6-point scale ranging from (1) *strongly disagree* to (6) *strongly agree*, to assess both WIF and FIW guilt with higher scores indicating a higher level of guilt experienced (see appendix E). The WFGS has been found to
possess strong internal reliability, $\alpha = .77$, with each of the subscales demonstrating similar strength (WIFG subscale $\alpha = .86$ and FIWG $\alpha = .74$) (McElwain, 2008).

Procedure

As part of a previous study (McElwain, 2008), consenting organizations contacted employees internally with information on how to participate in the study. Participants were able to complete the surveys online or in pencil and paper format in either English or French. The French version was translated and back translated from the English version. Participants received a package containing a cover letter (see appendix F), consent form (see appendix G), the survey, and a self-addressed, stamped envelope for those who completed the survey in pencil and paper format. Participants were asked to reflect upon the previous three months when responding to survey items. The second survey, which contained the same domain-specific outcome measures, including W-F conflict and W-F guilt, as the first survey, was administered approximately three months after the initial survey.

Chapter 3. Results

Preliminary Analyses

Prior to conducting data analysis, the individual variables were examined for out of range data, outliers, normality, patterns of missing data and reliability. A modified version of the outlier-labeling rule was utilized to identify potential outliers (Banerjee & Iglewicz, 2007). The outlier-labeling rule utilizes a constant multiplied by the inter-quartile range, which is then examined beyond the first and third quartiles for values that fall outside the boundaries for a given variable. Initially it was proposed that a constant of 1.5 would provide optimal results, however, more recent investigations have shown that this value is far too liberal (Banerjee &
Iglewicz, 2007), which led to the creation of the modified outlier-labeling rule. All values in the present dataset fell within the boundaries for each variable.

Each variable was examined for normality. The distributions along with the Shapiro-Wilk test indicated that several variables were non-normally distributed. It was not expected that these variables follow a normal distribution; therefore, no transformations were performed as this can affect the interpretability of results (Tabachnick & Fidell, 2012).

Additionally, frequency analyses were performed on all variables to examine response rates to individual items for inclusion in later analyses. As a result, two sources of support from the social support measure- children and paid household helpers- were eliminated due to low base rates. The elimination of paid household helpers is consistent with findings from Antani (2007) who removed this source from the analysis of the US data as a result of a low rate of response. Additionally, two items from the social support measure (questions one and two) were eliminated due to high levels of missing data.

The pattern of missing data for each variable for the remaining items was found to occur randomly throughout the data set. Due to the small amount of missing data (i.e., below 10 percent), the mean for each respective item was inserted for later analyses. This method has been shown to have minimal effect on the data (Roth, 1994) and provides more accurate results (Tabachnick & Fidell, 2012)\(^3\). Additionally, the reliability of each variable was examined to determine whether or not their respective factor structure required investigation. Each variable met the satisfactory cut-off (.70-.80; Bland & Altman, 1997) (see Table 3). Furthermore, preliminary correlational analyses were conducted between wave one and wave two study

\(^3\) Path analysis results were compared to those conducted with the removal of missing data, no meaningful differences were found.
variables to investigate potential relationships associated with the theoretical model (see Table 3).

**Factor Analysis**

Antani (2007) suggested that the factor structure of the social support measure required further investigation. To this end, principal components extraction was used to estimate the number of factors, absence of multicollinearity, and factorability of the correlation matrices.

Exploratory factor analysis was used to assess the fit of social support items onto the four hypothesized categories (work support for work, work support for family, nonwork support for work, and nonwork support for family). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .84, above the recommended value of .60, and Bartlett’s test of sphericity was significant, \( \chi^2(595) = 5982.80, \ p < .001 \), indicating that the variables were at least adequately related for factor analysis. Additionally, the communalities were all above .50, further confirming that the items shared some level of common variance. Given these indicators, a principal components analysis with varimax (orthogonal) rotation was used to identify the factors underlying the social support construct. A four factor solution was forced and examined.

The four factor solution explained 51.62% of the variance. The factor loading matrix for the four factor solution is presented in Table 4. The first factor, which included instrumental and emotional support for family- and work-related issues from two of the nonwork sources (parents/parents-in-law and neighbours, friends, or relatives) accounted for 27.44% of the total variance. The second factor included work (supervisor and coworker/subordinate) support for work-related issues and accounted for 10.08% of the total variance. The third factor, which included spousal support for both family- and work-related issues, accounted for 8.34% of the total variance. The fourth factor included work (supervisor and coworker/subordinate) support for family-related
issues and accounted for 5.74% of the total variance. The results of this analysis indicated that two of the four hypothesized categories of social support emerged as separate factors, work support for work and work support for family; however, nonwork sources were grouped into support from nonwork sources (parents/parents-in-law and neighbours, friends, or relatives) for work- and family-related issues and spousal support for work- and family-related issues.

Based on these results four mean composite variables were created: 1) work support for work (WSW), 2) work support for family (WSF), 3) nonwork support (NWS), and 4) spousal support (SS). Work support for work, which included support from supervisors and coworkers/subordinates, was comprised of questions three, four, seven, and eight from the social support measure. Work support for family included support from supervisors and coworkers/subordinates for questions five, six, and nine. Nonwork support included support from parents or parents-in-law and neighbours, friends or relatives for questions three, four, five, six, seven, eight, and nine. Finally, spousal support included support from partner/spouse for questions three, four, five, six, seven, eight, and nine. Descriptive data and correlation coefficients are presented in Table 3.

Based on the results from the factor analysis the proposed theoretical model (see Figure 5) was revised to account for the modified composite variables. In particular, the within-domain relationships between the overload and social support measures required the addition of two pathways. The revised model is presented in Figure 6. As a result, two new hypotheses were added:

**H1c:** Higher levels of work overload will be associated with higher levels of support from spouses for work and family domain issues.
H2c: Higher levels of family overload will be associated with higher levels of support from spouses for work and family domain issues.

Additionally, several hypotheses required modification:

H1b: Higher levels of work overload will be associated with higher levels of support from nonwork sources for work and family domain issues.

H2b: Higher levels of family overload will be associated with higher levels of support from nonwork sources for work and family domain issues.

H4a: Higher levels of support from nonwork sources for work and family domain issues will be associated with lower levels of WIFC.

H4b: Higher levels of support from nonwork sources for work and family domain issues will be associated with lower levels of FIWC.

H6a: Higher levels of support from spouses for work and family domain issues will be associated with lower levels of WIFC.

H6b: Higher levels of support from spouses for work and family domain issues will be associated with lower levels of FIWC.
Figure 6. Revised theoretical model to test the mediating effects of social support on WIF and FIW guilt.
Model Testing.

Cross-sectional analyses. Latent variable path analysis was performed on the wave one data in order to analyze both the overall fit and parameter estimates of the theoretically derived model (see Figure 6). The intervening variable model of social support, which contained ten latent variables (two exogenous and eight endogenous) and a total of 42 parameters, was overidentified as the number of data points (i.e., variances and covariances) exceeded the number of parameters to be estimated (Byrne, 2010). Path analysis, as opposed to structural equation modeling, was chosen to optimize power due to the large number of parameter estimates and the moderate sample size. Previous research has concluded that smaller sample sizes in structural equation modeling yield model misspecification as a result of decreased power (Fan, Thompson, & Wang, 1999). In particular, the sensitivity of several fit indices to the limited variation associated with smaller sample sizes can yield unfavourable results (Fan et al., 1999).

Path analyses were conducted using the maximum likelihood method, where both absolute and incremental fit indices were examined to assess overall fit along with individual parameters ($\chi^2$ test of significance, RMSEA, AGFI, GFI, CFI and NFI) (see Table 5). Individual path coefficients and their associated statistical significance were also investigated. In order to reduce the number of estimated parameters the factor loadings and error terms for each observed variable were calculated and specified in the model, resulting in a total of 16 parameters that required estimation.

The path analysis and standardized estimates for the first model of social support are presented in Figure 7. In this model work support for work was negatively associated with work overload ($\beta = -.13, p < .01$) and spousal support was negatively associated with family overload ($\beta = -.30, p < .001$). More specifically, the higher the overload experienced, the less received
support participants reported, thus disconfirming H1a, H1b, H1c, H2a, H2b, and H2c. As hypothesized, work support for work negatively predicted both WIFC (H3a; $\beta = -0.17$, $p < .001$) and FIWC (H3b; $\beta = -0.19$, $p < .001$), with higher levels of received support being associated with lower levels of W-F conflict. Similarly, spousal support was associated with lower FIWC (H6b; $\beta = -0.19$, $p < .001$) as expected; however, contrary to expectation nonwork support was associated with higher levels of FIWC (H4b; $\beta = 0.10$, $p < .05$). Finally, FIWC predicted WIFC (H7; $\beta = 0.28$, $p < .001$) and W-F conflict predicted W-F guilt with WIFC predicting higher levels of WIFG (H8; $\beta = 0.70$, $p < .001$) and FIWC predicting higher levels of FIWG (H9; $\beta = 0.44$, $p < .001$) as hypothesized.

The proposed model demonstrated poor fit (see Table 5). In an attempt to improve model fit, work and family overload were removed from later analyses. This decision was deemed appropriate as the focus of the model was on the role of social support on the experience of both W-F conflict and W-F guilt. Moreover, in order to understand the type of stressors being affected by the received social support measure, in the following analyses W-F conflict was broken down into time- and strain-based subcomponents. Descriptive data and correlation coefficients are presented in Table 3.

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4 Analyses were also performed with both time- and strain-based conflict combined into the overarching FIWC and WIFC components; minimal differences were found in overall model fit.
Figure 7. Standardized parameter estimates of social support as a mediator between stressors and strain (Model One); *$p < .05$, **$p < .01$, ***$p < .001$
The path analysis and standardized estimates for the second model of social support using time-based conflict are presented in Figure 8. The proposed model demonstrated good fit (see Table 5). As hypothesized, work support for work was negatively associated with time-based FIWC (H3b; $\beta = -0.16$, $p < .01$) and work support for family was negatively associated with time-based WIFC (H5a; $\beta = -0.13$, $p < .05$). Overall, higher levels of received support were associated with decreased W-F conflict. As hypothesized, time-based FIWC predicted time-based WIFC (H7; $\beta = 0.26$, $p < .001$), time-based WIFC predicted WIFG (H8; $\beta = 0.38$, $p < .001$) and time-based FIWC predicted FIWG (H9; $\beta = 0.68$, $p < .001$).
Figure 8. Standardized parameter estimates of social support as an antecedent to time-based stress and strain (Model Two); *p < .05, **p < .01, ***p < .001
The third model analyzed investigated the impact of strain-based conflict; the path analysis and standardized estimates are presented in Figure 9. The proposed model demonstrated excellent fit (see Table 5). As hypothesized, work support for work negatively predicted strain-based WIFC (H3a; $\beta = -.22, p < .001$) and FIWC (H3b; $\beta = -.16, p < .01$), with higher levels of support being associated with reduced W-F conflict. Similarly, spousal support was negatively associated with strain-based FIWC (H6b; $\beta = -.30, p < .001$) as expected; however, contrary to expectation nonwork support was positively associated with strain-based FIWC (H4b; $\beta = .14, p < .05$). Consistent with the previous model, strain-based FIWC predicted strain-based WIFC (H7; $\beta = .26, p < .001$), strain-based WIFC predicted WIFG (H8; $\beta = .35, p < .001$) and strain-based FIWC predicted FIWG (H9; $\beta = .53, p < .001$) as hypothesized.
Figure 9. Standardized parameter estimates of social support as an antecedent to strain-based stress and strain (Model Three); *p < .05, **p < .01, ***p < .001
**Prediction of attrition.** A logistic regression was performed to determine whether or not participant attrition between wave one and wave two data collection could be accounted for by the study variables. Nonwork support was found to predict participation in the wave two data collection ($\beta = -.59, p < .05$) (see Table 6). Thus, participants with less nonwork support at time one were less likely to participate at time two.

**Prospective analyses.** Analysis of the prospective data built on the final models from the cross-sectional analyses by substituting W-F guilt from the second wave of data collection for W-F guilt from the first wave of data collection\(^5\). This resulted in ten latent variables (four exogenous and six endogenous) with 13 structural parameters to be estimated. Similar to the cross-sectional analysis on wave one data, the prospective analyses examined both time- and strain-based conflict.

The first model (Model 1) demonstrated adequate fit (see Table 7). However, modification indices indicated that the model fit would improve with the addition of a pathway between Time two FIWG and Time two WIFG. The modified model (Model 2) demonstrated excellent fit (see Table 7). The path analysis and standardized parameter estimates for time-based conflict are presented in Figure 10.

As hypothesized, work support for work negatively predicted time-based FIWC ($H3b; \beta = -.41, p < .001$) and work support for family negatively predicted time-based WIFC ($H5a; \beta = -.25, p < .001$). Moreover, FIWC predicted WIFC ($H7; \beta = .33, p < .001$) as hypothesized, and Time two FIWG predicted Time two WIFG ($\beta = .31, p < .001$). Finally, WIFC predicted Time two WIFG ($H8; \beta = .57, p < .001$), and FIWC predicted Time two FIWG ($H9; \beta = .32, p < .001$) as expected.

\(^5\) Time one guilt was eliminated from the final path analyses in order to increase power for the model. This was deemed appropriate as time one guilt was found to predict time two guilt.
Figure 10. Standardized parameter estimates of social support as an antecedent to time-based stress and prospective strain (Model Two); *p < .05, **p < .01, ***p < .001
Similar to wave one, the third model (Model 3) examined the role of social support using strain-based conflict. The model demonstrated adequate fit (see Table 7). However, similar to the path analysis using time-based conflict, modification indices indicated that model fit would improve with the addition of a pathway between Time two FIWG and Time two WIFG. The modified model (Model 4) demonstrated excellent fit (see Table 7). The path analysis and standardized parameter estimates are presented in Figure 11.

As hypothesized, work support for work negatively predicted strain-based WIFC (H3a; $\beta = -.28$, $p < .001$) and FIWC (H3b; $\beta = -.29$, $p < .001$). Similarly, spousal support was negatively associated with strain-based FIWC (H6b; $\beta = -.23$, $p < .01$) as expected. Strain-based FIWC predicted strain-based WIFC (H7; $\beta = .30$, $p < .001$) as hypothesized, and Time two FIWG predicted Time two WIFG ($\beta = .29$, $p < .001$). Strain-based WIFC predicted Time two WIFG (H8; $\beta = .49$, $p < .001$) and strain-based FIWC predicted Time two FIWG (H9; $\beta = .24$, $p < .001$) as expected. Please refer to Table 8 for a summary of the hypotheses and findings.
Figure 11. Standardized parameter estimates of social support as an antecedent to strain-based stress and prospective strain (Model Four); *p < .05, **p < .01, ***p < .001
**Item-level analyses.**

**Social support and W-F conflict.** Item-level analyses were performed to examine the relationship between different sources of support and both time- and strain-based conflict. Lower time-based WIFC was associated with supervisor support for both work and family domain issues, namely, childcare \((r = -.19, p < .01)\), household tasks \((r = -.13, p < .05)\), work-related duties \((r = -.11, p < .05)\), helpful work-related information \((r = -.15, p < .01)\), listening to/discussing work-related problems \((r = -.12, p < .05)\), encouragement/appreciation for work \((r = -.18, p < .001)\), encouragement/appreciation for family \((r = -.11, p < .05)\), and listening to/discussing family-related problems \((r = -.14, p < .01)\). Lower time-based FIWC was associated with supervisor emotional support for work domain issues, namely, helpful work-related information \((r = -.12, p < .05)\), listening to/discussing work-related problems \((r = -.11, p < .05)\), and encouragement/appreciation for work \((r = -.15, p < .01)\). Additionally, supervisor emotional support in terms of helpful work-related information \((r = -.21, p < .001)\), encouragement/appreciation for work \((r = -.23, p < .001)\), listening to/discussing work-related problems \((r = -.17, p < .001)\), encouragement/appreciation for family \((r = -.13, p < .05)\), and listening to/discussing family-related problems \((r = -.12, p < .05)\) was associated with lower strain-based WIFC; receiving helpful work-related information \((r = -.15, p < .01)\) was also associated with lower strain-based FIWC. However, receiving support from your supervisor for childcare \((r = .13, p < .05)\) was associated with higher strain-based FIWC.

Lower strain-based WIFC was associated with support from coworkers/subordinates for work domain issues, namely, work-related duties \((r = -.15, p < .01)\), helpful work-related information \((r = -.21, p < .001)\), listening to/discussing work-related problems \((r = -.18, p < .001)\), and encouragement/appreciation for work \((r = -.17, p < .01)\). Lower strain-based FIWC
was associated with support from coworkers/subordinates for work domain issues, namely, work-related duties \( (r = -0.18, p < 0.001) \), helpful work-related information \( (r = -0.13, p < 0.05) \), and encouragement/appreciation for work \( (r = -0.18, p < 0.001) \); however, coworker/subordinate support for childcare \( (r = 0.14, p < 0.05) \) was associated with higher strain-based FIWC.

Additionally, lower time-based WIFC was associated with support from coworkers/subordinates for both work and family issues, namely, childcare \( (r = -0.12, p < 0.05) \), helpful work-related information \( (r = -0.17, p < 0.01) \), listening to/discussing work-related problems \( (r = -0.11, p < 0.05) \), encouragement/appreciation for work \( (r = -0.14, p < 0.01) \), encouragement/appreciation for family \( (r = -0.16, p < 0.01) \), and listening to/discussing family-related problems \( (r = -0.15, p < 0.01) \).

Coworker/subordinate support for listening to/discussing work-related problems \( (r = -0.13, p < 0.05) \) and encouragement/appreciation for work \( (r = -0.14, p < 0.01) \) were also associated with lower time-based FIWC.

Support from parents or parents-in-law for childcare \( (r = -0.12, p < 0.05) \) was associated with lower strain-based WIFC. Lower strain-based FIWC was associated with support from a partner/spouse for both work and family issues, namely, childcare \( (r = -0.25, p < 0.001) \), household tasks \( (r = -0.19, p < 0.001) \), helpful work-related information \( (r = -0.13, p < 0.05) \), encouragement/appreciation for work \( (r = -0.26, p < 0.001) \), listening to/discussing work-related problems \( (r = -0.16, p < 0.01) \), helpful family-related information \( (r = -0.26, p < 0.001) \), encouragement/appreciation for family \( (r = -0.20, p < 0.001) \), and listening to/discussing family-related problems \( (r = -0.35, p < 0.001) \). Additionally, spousal support for listening to/discussing family-related problems \( (r = -0.12, p < 0.05) \) was associated with lower strain-based WIFC, whereas spousal support for household tasks \( (r = 0.14, p < 0.01) \) was associated with higher time-based WIFC. Please refer to Table 9 for a summary of the findings.
Social support and W-F guilt. Additional item-level analyses were performed on the wave one data to further investigate the relationship between received social support and W-F guilt. Supervisor support for work-related duties ($r = -.12, p < .05$), helpful work-related information ($r = -.17, p < .01$), listening to/discussing work-related problems ($r = -.18, p < .01$) and encouragement/appreciation for work ($r = -.17, p < .01$) were associated with lower FIWG. Likewise, coworker/subordinate support for helpful work-related information ($r = -.17, p < .01$), listening to/discussing work-related problems ($r = -.15, p < .05$), and encouragement/appreciation for work ($r = -.11, p < .05$) were associated with lower FIWG. Supervisor ($r = -.15, p < .05$) and coworker/subordinate ($r = -.12, p < .05$) encouragement/appreciation for family were associated with lower FIWG. However, supervisor support for household tasks was associated with higher WIFG ($r = .15, p < .05$).

Support for work-related duties from partner/spouse ($r = .13, p < .05$); parents or parents-in-law ($r = .13, p < .05$); and neighbours, friends, or relatives ($r = .14, p < .05$) were associated with higher WIFG. Support from parents or parents-in-law for childcare ($r = .14, p < .05$), household tasks ($r = .14, p < .05$) and helpful family-related information ($r = .15, p < .05$) were also associated with higher WIFG. Support from partner/spouse for childcare ($r = -.10, p < .05$), listening to/discussing family-related problems ($r = -.13, p < .05$) and encouragement/appreciation for family ($r = -.12, p < .05$) were associated with lower WIFG. Support from neighbours, friends, or relatives for listening to/discussing family-related problems ($r = -.15, p < .05$) was associated with lower FIWG. Please refer to Table 10 for a summary of the findings.
Gender Differences.

As per the specified exploratory research question, the role of gender was examined for the cross-sectional data. For this investigation, a multi-sample analysis was performed to compare the path coefficients between the subsamples of men and women. Results indicated no significant differences between the pathway coefficients for either the time- or strain-based conflict models. Additional independent samples t-tests were conducted to determine whether or not gender differences were present in reported levels of W-F conflict and W-F guilt. Results indicated no significant differences between men and women for WIFC, FIWC, WIFG, or FIWG.

Subsequently, independent samples t-tests were performed to determine whether or not there were gender differences in each of the received social support composite variables. While work support for work did not demonstrate a significant difference between men and women, work support for family, nonwork support and spousal support did. Women ($M = 1.80, SD = .55$) were found to report significantly higher levels of received work support for family compared to men ($M = 1.68, SD = .51$) ($t = 2.15, p < .05$). Similarly, women ($M = 2.13, SD = .54$) reported significantly higher levels of nonwork support compared to men ($M = 2.00, SD = .52$) ($t = 2.34, p < .05$). Conversely, men ($M = 3.21, SD = .50$) reported significantly higher levels of spousal support compared to women ($M = 3.06, SD = .58$) ($t = 2.62, p < .01$).

Additional item-level analyses were performed to further investigate the relationship between gender, received social support and W-F guilt. It was found that men reported significantly higher levels of WIFG ($r = .28, p < .001$) compared to women ($r = -.14, ns$) when receiving support from supervisors for household tasks ($z = 3.40, p < .001$). By contrast, women reported significantly higher levels of WIFG when receiving nonwork support (from
parents/parents-in-law and neighbours, friends, or relatives) for encouragement/appreciation in the family domain (women: $r = .26, p < .01$; men: $r = -.08, ns$) ($z = 2.96, p < .01$), encouragement/appreciation in the work domain (women: $r = .19, p < .05$; men: $r = -.11, ns$) ($z = 2.48, p < .01$), and listening to/discussing family-related problems (women: $r = .33, p < .001$; men: $r = -.12, ns$) ($z = 3.94, p < .001$). In general, women reported significantly higher levels of WIFG from utilizing emotional support from the family domain, whereas men reported higher WIFG from utilizing instrumental support from their supervisors.

Chapter 4. Discussion

Given the relatively few empirical studies that have been conducted to date investigating the experience of W-F guilt within the W-F interface, there is a demonstrated need for further research (Losocco, 1997; Simon, 1995) to which this study contributes. In particular, the present study expanded on previous knowledge by examining the role of received social support from both work and nonwork sources on the experience of time- and strain-based W-F conflict and W-F guilt using cross-sectional and prospective analyses. Moreover, the present study made several contributions to the literature by examining the bidirectional nature of W-F conflict (WIFC and FIWC) and W-F guilt (WIFG and FIWG) in addition to the within- and cross-domain relationships between the variables under investigation. Lastly, the impact of gender on the hypothesized relationships was explored in an attempt to achieve a more holistic understanding of the experience of W-F guilt.

For the purposes of the present study, an intervening variable or mobilization of resources model of social support was initially hypothesized in which role overload (including work and family) was postulated to act as a stressor, W-F conflict was used as a measure of stress, and
W-F guilt was conceptualized as strain. Please refer to Table 8 for a summary of the hypotheses and findings.

**The Structure of Social Support**

Research on received social support as it pertains to W-F issues is still in its infancy with few studies to date utilizing W-F specific constructs of support (Ayman & Antani, 2008). As a result, the measure of received social support utilized in the present study required further investigation in order to clarify the factor structure (Antani, 2007). As expected, it was found that work sources of support clearly separated into two distinct categories targeted towards within- and cross-domain support (e.g., work support for work and work support for family). For nonwork sources of support, however, this same pattern did not emerge. Rather, spouses were found to load separately from other sources of nonwork support (e.g., parents or parents-in-law and neighbours, friends, or relatives) with both factors directing support at both the work and family domains. As a result of these findings, the theoretical model for the present study required modification in order to incorporate the alternative nonwork support factors.

These findings are similar to those reported by Antani (2007), where support received from work sources differentiated by domain (work vs. family); support from nonwork sources did not demonstrate this same distinction. Rather, Antani (2007) found that support from nonwork sources differentiated in terms of the type of support received (emotional vs. instrumental).

While the present study did not have a large enough sample size to investigate the type of support received within the theoretical model, the present findings shed light on the complexity of received social support specifically for W-F issues. More specifically, within the work domain received support from both sources (supervisors and coworkers/subordinates) acts in a targeted
manner with support directed towards either work or family domain issues; whereas, in the family domain different types of support can come from multiple sources without a clearly defined target. Interestingly, the present study highlighted the unique nature of spousal support. Future research should aim at clarifying the nature of nonwork support specifically for W-F issues by investigating the context in which support is received from different nonwork sources. By understanding the circumstances in which support is both offered and received we may begin to understand its role in the function of the family domain and subsequently the effects on stress and strain.

Model Testing

Role overload. Contrary to expectation, work and family overload were not associated with higher levels of received social support. Rather, the model for the cross-sectional data demonstrated poor fit and role overload was found to be either a nonsignificant predictor of support or related to lower received support. For example, work overload was negatively associated with work support for work and family overload was negatively associated with spousal support. Thus, H1a, H1b, H1c, H2a, H2b, and H2c were not supported. As a result, work and family overload were removed from later analyses, with the resulting model specifying that received social support was a direct antecedent to stress (i.e., W-F conflict) and strain (i.e., W-F guilt).

Since the data set used was cross-sectional in nature, one explanation for this finding might be that cause and effect were reversed with a lack of support leading to increased overload instead of role overload leading to a mobilization of one’s support network. Longitudinal data where both social support and role overload are assessed at more than one time period would be necessary to test this supposition.
Another explanation for the findings, however, may be that the individual items on the role overload measure were tapping more long-term stress as opposed to short-term stressors and as such could have affected the efficacy of the theoretical model. Previous research on stressors, including role overload, has proposed that the experience of such negative events are a precursor to later stress (i.e., inter-role conflict) (Crosbie & Moore, 2004; Kahn et al., 1964). However, an important feature of stressors within the social support literature is that they refer to the experience of short-term negative life events (Carlson & Perrewé, 1999; Thoits, 1986). For example, previous research into received emotional spousal support investigated the role of daily stress events on support provision (Iida et al., 2008).

Upon closer examination of the overload items (e.g., “I feel overburdened in my role”) the temporal dimension required in order to classify the overload experienced as short-term appears to be vague. Rather, this particular measure of overload may better reflect a measure of perceived stress, which was defined as the absence of resources or the presence of unmet needs (Jacobson, 1986). As a result, work and family overload could potentially be categorized in the same temporal dimension as W-F conflict rather than as a distinct precursor. This concept is supported by the moderately strong positive correlations between work overload and WIFC and family overload and FIWC.

Despite the empirical interest in the stressor-stress-strain relationship within the W-F interface, the literature lacks a clearly defined typology in which to classify variables within each of these categories. Previous studies have considered W-F conflict and role overload as similar constructs and have investigated them simultaneously while blurring the definitions of stressor

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6 An alternative model of social support was analyzed where overload was examined as an antecedent to stress (i.e., W-F conflict) (see Figure 1). This model did not yield acceptable fit, which may highlight the similar nature of the W-F conflict and role overload constructs.
and stress as a result (Glazer & Beehr, 2005; Jex & Elacqua, 1999; Barling & Macintyre, 1993; Cooke & Rousseau, 1984). This issue reflects the long-standing problem that conflict and overload are often used interchangeably (Hecht, 2001), which stems from ambiguity in the conceptualization and operational definition of stress (Beehr & Newman, 1978), particularly in terms of the influence of time.

George and Jones (2000) have noted that time is often only included as a boundary condition in the creation of measures to reflect the conceptualization of a construct. Rather, they argue that time can alter the meaning of a construct and subsequently the relationships between the variables under investigation if improperly specified (George & Jones, 2000). For studies utilizing a measure of received support it may best serve to focus on task overload with a defined short-term temporal dimension as opposed to more stable constructs of work and family role overload. This theory is consistent with the notion that the broader concept of social support should be disbanded for more specific models targeting the unique stress-distress relationship under investigation (Barrera, 1986).

The effects of social support on W-F conflict. As per the specified research question, W-F conflict was separated into time- and strain-based conflict as previous research has shown that social support can differentially affect the type of stress experienced (Greenhaus & Parasuraman, 1994; Van Daalen et al., 2006). As such, the results of the path analyses will be discussed separately for time- and strain-based conflict in relation to the study hypotheses.

Work support for work. For time-based conflict, for both the cross-sectional and the prospective analyses, higher levels of support from work sources for work issues was associated with lower FIWC as hypothesized (H3b), but not with lower WIFC (H3a). For strain-based conflict, as expected (H3a and b) for both the cross-sectional and prospective analyses, higher
levels of support from work sources for work issues were associated with lower levels of both WIFC and FIWC. These findings corroborate hypothesis H3b for both time- and strain-based conflict, and H3a for strain-based conflict.

These results of this study are consistent with previous research that has demonstrated a link between support from work sources (e.g., supervisors, coworkers, etc.) and reduced W-F conflict (Carlson & Perrewé, 1999; Goff et al., 1990; Parasuraman et al., 1992; Thomas & Ganster, 1995). In particular, there has been support for the use of work sources in the reduction of both WIFC (Antani, 2007; Behson, 2005; Frone et al., 1997; Thomas & Ganster, 1995) and FIWC (Antani & Ayman, 2004). Very few studies, however, have investigated the disparate effects of work-based support on time- versus strain-based conflict for work-domain issues.

A previous study found a differential negative relationship between the use of work supports for work issues, time-based WIFC and strain-based FIWC in a sample of men from dual-earner households (Van Daalen et al., 2006). Namely, higher levels of supervisor support were associated with lower time-based WIFC; whereas, support from coworkers was found to predict lower strain-based FIWC (Van Daalen et al., 2006). In the present study, work support for work was not related to lower levels of time-based WIFC. The present results may differ from those of Van Daalen et al. (2006) as supervisors and coworkers/subordinates were combined into a single work support for work composite variable in the present study, whereas Van Daalen (2006) examined these sources separately. More specifically, work sources may offer different types of work-related support to the individual under stress depending on the nature of the stress experienced [i.e., time-based (e.g., working long hours) vs. strain-based (e.g., an urgent task)].
Previous research has shown that both the type of support and the source of support have an impact on the W-F conflict experienced (Kossek et al., 2011). For instance, coworkers are often associated with task support for work domain issues (Antani & Ayman, 2004; Buunk & Verhoeven, 1991) and informal work accommodations (Mesmer-Magnus et al., 2008). By contrast, previous research on supervisor support has linked decreased W-F conflict with support for flexibility and time management (Frye & Breaugh, 2004; Goff et al., 1990; Van Daalen et al., 2006). In addition to strain-based support, supervisors may also have an influence on time-based conflict, whereas coworkers may only be able to support peers through actions targeted at strain-based conflict. Thus, for time-based WIFC the combination of both sources may have resulted in a non-significant relationship between received support for work domain issues and time-based conflict. Based on the finding that support from work sources (supervisors and coworkers/subordinates) can impact both WIFC and FIWC, it is paramount for organizations to be aware of and support initiatives aimed at promoting a culture of social support within their respective structures in order to foster employee well-being.

**Nonwork support for work and family.** The results from both the cross-sectional and the prospective analyses indicated that contrary to expectation nonwork support was not associated with a reduction in time-based WIFC or FIWC. Similarly, nonwork support was not related to strain-based WIFC; however, for the cross-sectional, but not for the prospective analysis, it was found to predict higher levels of strain-based FIWC. These results failed to uphold hypotheses H4a and H4b for both time- and strain-based conflict.

Research into the role of support from nonwork sources in the W-F interface has received less attention than support from work-related sources (Adams et al., 1996). Yet, it is postulated that both work and family support play an important role in the experience of W-F conflict (Eby
et al., 2005). In support of this, previous research has shown a negative relationship between perceived support from nonwork sources and W-F conflict (Antani, 2007; Holohan & Gilbert, 1979; Lapierre & Allen, 2006), including decreased WIFC and FIWC (Adams et al., 1996). Frone et al. (1996) argue that nonwork support acts as a strain-based predictor of W-F conflict by reducing same-domain distress and overload; however, less is known about the effects of cross-domain support (Antani, 2007).

The present study did not find support for the proposed hypotheses. In particular, greater nonwork support was associated with higher strain-based FIWC. This finding may be a result of issues stemming from the combination of distinct aspects of support at the composite variable level. For example, the type (emotional vs. instrumental), target (family- vs. work-related) and source (parents or parents-in-law and neighbours, friends, or relatives) of support may differentially affect the particular stress-experienced (time- vs. strain-based).

It has been argued that time- and strain-based conflict have distinct antecedents, which affect how individuals evaluate their sense of overload and conflict within each domain (Steiber, 2009). As a result, time- and strain-oriented supports directed at the specific stress and strain under investigation may be more effective; however, many studies fail to distinguish between the type of support provided in addition to the type of stress experienced.

For example, much of the research within the social support literature has failed to separate emotional and instrumental support (Adams et al., 1996; Ayman & Antani, 2008). As a result, nonwork support has been more strongly linked to general well-being rather than a reduction in domain-specific strains (Adams et al., 1996; Ayman & Antani, 2008; Kaufmann & Beehr, 1989). Of the available research, it has been found that while instrumental support from nonwork sources (i.e., housework or chores) may not always reduce W-F conflict (Baruch &
Barnett, 1986; Wells & Major, 1997), emotional support can help alleviate both WIFC (Antani, 2007) and FIWC (Bernas & Major, 2000). The present study did not have a large enough sample size to investigate the role of emotional and instrumental support from each source separately within the theoretical model. As a result, it is unclear if both types of support had a similar or a counteractive effect on the experienced stress, which could account for lack of a relationship between nonwork support, time-based WIFC, time-based FIWC, and strain-based WIFC in addition to the positive relationship between nonwork support and strain-based FIWC.

Additionally, previous research has often failed to distinguish both the target of support provided (work- or family-related issues) and the source of support; which can affect our understanding of the role of support in the experience of both stress and strain. As was stated earlier, previous research has argued that the specific nature of support, including the type and target of support, in addition to the source of support have an impact on the experience of W-F conflict (Kossek et al., 2011). Future research should aim to better understand the role that each source plays in the relationship between support (emotional and instrumental), stress (time- and strain-based) and strain.

**Work support for family.** For both the cross-sectional and prospective analyses, higher levels of support from work sources for family issues was associated with lower time-based WIFC, but not with lower strain-based WIFC. Moreover, contrary to expectation (H5b), in neither the cross-sectional nor the prospective analysis was support from work sources for family issues associated with lower time- or strain-based FIWC. Thus, although Hypothesis 5a was supported for time-based conflict, Hypothesis 5a and 5b for strain-based conflict and 5b for time-based conflict were not supported.
As expected, work support for family was associated with lower time-based WIFC. This finding is consistent with previous research that has found lower time-based WIFC as a result of higher supervisor support (Van Daalen et al., 2006). More specifically, the ability to manage time through flexible work arrangements has previously been associated with lower inter-role conflict (Frye & Breaugh, 2004; Goff et al., 1990; Van Daalen et al., 2006). Given that previous research has seldom investigated the direction and subtypes of W-F conflict separately, the present study provides insight into the differential effects of received support on W-F conflict based on the direction (WIFC vs. FIWC) and type of conflict experienced (time- vs. strain-based). This information has implications in terms of the creation and application of administrative policies aimed at reducing W-F conflict. For example, by understanding the relationship between work support for family and lower time-based WIFC, organizations are better equipped to promote policies aimed at addressing time-based W-F conflict specifically, such as flexible work arrangements.

While previous research has shown a negative association between social support from work sources and W-F conflict (Carlson & Perrewé, 1999; Goff et al., 1990; Parasuraman et al., 1992; Thomas & Ganster, 1995) very few studies have empirically investigated the role of cross-domain relationships (Wellman, 1981), such as utilizing work supports for family-related issues to reduce conflict originating in the family domain (FIWC). It has been argued that the relationships are stronger between same-domain as opposed to cross-domain variables (Frone et al., 1997). More specifically, support from work sources for work issues may relate more strongly to WIFC, which could account for the lack of a relationship between work support for family and time- and strain-based FIWC.
Additionally, it has been suggested that relationships with work sources may be stressful in and of themselves (Buunk & Verhoeven, 1991). More specifically, individuals may be less likely to disclose personal information for fear of appearing incompetent, facing repercussions, or feelings of indebtedness (Antani, 2007; Bernas & Major, 2000; Buunk & Verhoeven, 1991). As a result, individuals may be less likely to utilize social support from work sources for family-related issues, which could account for the lack of findings between work support for family and three of the four W-F conflict variables. The inaccessibility of work support for family-related issues could have negative implications for organizations, as higher levels of W-F conflict have been associated with lower job satisfaction (Perrewé, Hochwarter, & Kiewitz, 1999) and greater hostility at work (Judge, Ilies, & Scott, 2006). Rather, by promoting a culture of support for families organizations may increase employee use of work support for family-related issues, which could potentially impact time- and strain-based W-F conflict, thereby improving individual well-being.

**Spousal support for work and family.** Contrary to expectations, for both the cross-sectional and prospective analyses, spousal support was not significantly associated with time-based WIFC or FIWC. For strain-based conflict, for both the cross-sectional and the prospective analyses, spousal support was associated with lower FIWC as hypothesized (H6b), but not with lower WIFC (H6a). Thus, although Hypothesis 6b was supported for strain-based conflict, Hypothesis 6a for both time- and strain-based conflict and Hypothesis 6b for time-based conflict were not supported.

It has been argued that family members have a unique opportunity to provide both emotional (e.g., giving advice) and instrumental support (e.g., housework or chores) for work and family issues (Adams et al., 1996). As hypothesized, spousal support was negatively
associated with strain-based FIWC. This finding is consistent with previous research that has found a negative relationship between spousal support and W-F conflict (Aycan & Eskin, 2005; Holohan & Gilbert, 1979; Suchet & Barling, 1986). In particular, previous research has found that spousal support was related to reduced FIWC, but not WIFC (Burke & Greenglass, 1999; Van Daalen et al., 2006).

As was stated earlier, it has been argued that nonwork sources of support, including spouses, act as a strain-based predictor of W-F conflict by reducing same-domain distress and overload (Frone et al., 1996). More specifically, supports from the family domain have a stronger impact on family-related issues and FIWC conflict. Additionally, there may be little spouses can do to help reduce time-based conflict outside of the family domain. Rather, they may focus on the reduction of strain-based conflict through the use of instrumental and emotional support targeted towards family-domain issues. This finding has implications for families, particularly since previous research has argued that the family domain is more permeable than the work domain, with job demands occurring more often in the family domain than vice versa (Eagle et al., 1997). As a result, individuals experiencing W-F conflict may not only be coping with family demands at home but job demands as well. Thus, spousal support (e.g., helpful family-related information), particularly for strain-based conflict, may be critical for individual well-being in the family domain. More specifically, by reducing family stressors partners/spouses may allow their significant other to focus on the job demands that have spilled over into the family domain, thereby reducing strain-based FIWC.

**Summary.** For work domain issues, work support was related to lower strain-based WIFC, whereas for family domain issues work support was related to lower time-based WIFC. For work domain issues, work support was associated with lower time- and strain-based FIWC.
However, for family domain issues, work support had an effect on neither time- or strain-based FIWC. Although neither partner/spouse nor other nonwork support had an impact on WIFC, support from partners/spouses and other nonwork supports was related to lower strain-based FIWC. Based on these findings, it becomes apparent that while spousal support can impact FIWC, the work domain in particular is critical for lowering both WIFC and FIWC.

Furthermore, by targeting both work and family domain issues through various forms of work support, the work domain may have a substantial impact on employee W-F conflict (both time- and strain-based) and subsequently well-being. These findings have significant implications for organizations as the importance of supportive practices and policies in the reduction of W-F conflict becomes evident. Moreover, this relationship could impact positive work behaviours, such as increased job and life satisfaction (Perrewé, et al., 1999).

**FIWC and WIFC.** As expected, the inclusion of a unidirectional pathway from FIWC to WIFC improved overall fit (Somech & Drach-Zahavy, 2011). Additionally, in both the cross-sectional and prospective analyses FIWC was found to predict WIFC for both time- and strain-based conflict as was hypothesized (H7). This finding is consistent with previous research that has found a stronger relationship from FIWC to WIFC than vice versa (Michel, et al., 2009).

**The effects of W-F conflict on W-F guilt.** As hypothesized, there was a significant positive relationship between WIFC and WIFG (H8), as well as between FIWC and FIWG (H9), for the time- and the strain-based models for both the cross-sectional and prospective analyses. More specifically, lower levels of W-F conflict were associated with lower levels of W-F guilt for both time- and strain-based conflict. These findings are consistent with previous research that has demonstrated a strong relationship between W-F conflict and W-F guilt (Aycan & Eskin, 2005; Ishaya et al., 2013; Korabik & McElwain, 2011). Based on this finding, in order to reduce
W-F guilt and promote individual well-being we must first address inter-role conflict. More specifically, by addressing the experience of stress we thereby indirectly address the associated negative emotional state. This has implications for both organizations and home domains as the alleviation of tension between work and family roles will influence the associated guilt experienced.

Overall, W-F conflict acted as a mediator of the relationship between social support and W-F guilt. Specifically, by reducing the conflict (both time- and strain-based) received social support also had an effect on the level of guilt experienced. More specifically, work support for work, work support for family, and spousal support each uniquely contributed to the reduction of W-F conflict and W-F guilt. By understanding the unique nature of each of these pathways in terms of the type of conflict affected we are better equipped to promote their inclusion in both the work and family domains to target stress and strain. Furthermore, by reinforcing a culture of support for both work and family issues within organizations, received support can indirectly reduce W-F guilt by acting through strain- and time-based conflict. Moreover, spousal support can reduce W-F guilt through the reduction of strain-based conflict. The present findings make significant contributions to our understanding of the complexity of W-F issues and highlight potential avenues to help alleviate the negative consequences experienced by dual-earner families.

**Contribution of the Prospective Analysis**

The analysis of the prospective data revealed that received social support had an effect on reported levels of W-F guilt three months after the initial data collection. Namely, time- and strain-based conflict from wave one data collection positively related to Time two WIFG. Similarly, time- and strain-based conflict collected in wave one positively related to Time two
FIWG. More specifically, support (e.g., work support for work, work support for family, and spousal support) received in wave one that negatively predicted W-F conflict also negatively predicted W-F guilt three months later.

The use of prospective data provides insight into the complexity of the W-F guilt experience by examining the effects of predictors on individuals over time. This design helps to reduce the inability to infer causality bias, which is commonly cited with the use of cross-sectional data. Findings from the prospective sample have practical implications in terms of implementing organizational policies. For example, the ability for organizations to recognize the benefits of social support over time increases the likelihood of policy changes and program implementation by promoting the return on investment.

**Gender Differences**

Results from the multi-sample path analysis revealed no significant gender differences between pathway coefficients for the wave one data collection. Consequently, there were no differences between men and women in the role of social support on either W-F conflict or W-F guilt. However, comparison of means indicated that women report significantly higher levels of received work support for family and nonwork support than men; but men reported significantly higher levels of spousal support. The failure to find gender differences between pathway coefficients in the theoretical model may have been due to the small sample size for both men and women as several pathway comparisons approached significance.

In the present study it was found that women reported receiving higher levels of work support for family compared to men. This finding may be a result of gender differences in the expression of role identities and the perceived availability of support for family-related issues. Previous research has argued that men clearly separate their work and family identities; whereas
women consider their family needs in conjunction with their work demands, thereby blurring the boundaries between roles (Thompson & Walker, 1989). As a result, men are less likely to discuss family-related issues at work compared to women. Furthermore, it has been found that men rate their working environments to be less supportive for family compared to women (Hill, 2005). Given that individuals are less likely to disclose family-related information to work sources for fear of negative repercussions (Antani, 2007; Bernas & Major, 2000; Buunk & Verhoeven, 1991), this relationship may be stronger for men. Consequently, men may be less likely to discuss their family-related issues and subsequently seek out and utilize social support from work sources. This finding has implications for organizations, as men may be less likely to access and utilize supports. Therefore, policies and programs should be designed and promoted to both sexes. Furthermore, by creating a culture of support, organizations can encourage the use of policies by reinforcing their availability and accessibility.

In addition to reporting higher levels of work support for family, women also reported greater levels of nonwork support than men in the present sample. This finding is consistent with previous research that has found that women reported receiving greater levels of support from friends (Zimet, Dahlem, Zimet, & Farley, 1988; Zimet et al., 1990) in addition to seeking nonwork support more often than men (Day & Livingstone, 2003). Additionally, given that individuals were less likely to participate in the second wave of data collection if they received lower levels of nonwork support at time one, it may be that nonwork support is increasingly important for the reduction of strain over time, particularly for men. However, a longitudinal investigation into the role of gender and received support on W-F conflict and W-F guilt would be required to investigate this possibility.
Previous research on spousal support has found a negative relationship between perceived support and W-F conflict for both men and women (Aycan & Eskin, 2005); however, some research has found that the type of support provided may not be mutually beneficial for both sexes. For example, instrumental support (e.g., help with household chores) has been shown to be less useful for women in terms of reducing stress (Baruch & Barnett, 1986; Wells & Major, 1997), whereas emotional spousal support has been linked to reduced WIFC and FIWC for both men and women (Adams et al., 1996). Despite the need for emotional support, it has been found that women provide more emotional support to their significant other than men do (Reis, 1998); this may account for the gender difference found in received spousal support in the present sample.

Some of the most interesting findings in regard to social support, gender, and W-F guilt came from the item-level analyses. Men reported significantly higher levels of WIFG than women when receiving support from supervisors for household tasks. By contrast, women reported significantly higher levels of WIFG than men when receiving support for family issues from nonwork sources. These findings provide insight into the differential nature of W-F guilt for men and women, which may be a result of the influence of traditional gender-role expectations (Greenhaus & Beutell, 1985). More specifically, for men, the inability to provide for the family has been previously linked to higher levels of guilt (Loscocco, 1997), which could account for the positive association between supervisor support for household tasks and WIFG. In contrast, for women, guilt may stem from a deviation from the traditional homemaker role (Napholz, 1999), which could explain the finding that WIFG was associated with higher nonwork support for family. Consequently, while received social support may address the conflict experienced (time- or strain-based), if this behaviour contradicts traditional gender
norms it may actually exacerbate the experience of W-F guilt. Thus, received social support is most likely to be beneficial in terms of W-F guilt when the support directly addresses W-F conflict within the boundaries of traditional gender-role expectations. However, future research should aim to investigate the role of gender-role orientation in the relationships between the variables under investigation.

These findings provide insight into the lack of gender differences found at the composite variable level. More specifically, while some types of received support, in terms of the source and target, were found to be associated with lower levels of W-F guilt, other items were found to be associated with higher levels of W-F guilt. These results highlight the complex and multidimensional nature of the W-F guilt construct.

**Implications**

Given the increased demands faced by today’s working parents, the need for a greater understanding of the work and family influences on the experience of stress and strain is of paramount importance. The negative repercussions associated with the experience of inter-role conflict have been well documented within the literature (Frone et al., 1992); however, more recently research has begun to focus on the influence of emotions, including guilt, on the experience of negative effects associated with W-F conflict (Hochwarter et al., 2007). The present findings suggest that the support received from both work and nonwork sources can help alleviate the W-F guilt associated with W-F conflict.

Previous research has suggested that the perception of available supports can act as a buffer against stress (Barrera, 1986; Cohen & Wills, 1985; Jacobson, 1986); however, findings from the present study imply that social support can act as a direct antecedent to perceived stress. Namely, the receipt of support (both emotional and instrumental) directed at the right type of W-
F conflict (time-based vs. strain-based) can lead to fewer negative outcomes associated with participating in multiple roles. More specifically, the results indicate that support received from work sources for work-domain issues is important for reducing both WIF and FIW conflict and subsequently WIF and FIW guilt. Furthermore, support from a partner/spouse is important for reducing the level of strain-based FIW conflict and subsequent FIW guilt.

These results have practical implications for both organizations and families. In particular, the creation of family-oriented policies within a workplace may help promote the availability of support from both peers and supervisors, thereby fostering a culture of support. Such policies or programs can include flexible work arrangements (both time and place), reduced workload or ability to access part-time work, leaves (both paid and unpaid), and childcare (Skinner & Chapman, 2013). While programs, including flexible work arrangements, have been implemented to reduce negative outcomes such as W-F conflict, research on their efficacy has reported mixed results (Allen, Johnson, Kiburz, & Shockley, 2013). This discrepancy may be a result of boundary management; that is, when individuals are unable to restrict their work demands at home, which can result in negative spillover (Batt & Valcour, 2001).

Additionally, despite the availability of flexible programs, many employees are often hesitant to utilize such services due to perceived stigma (Fiksenbaum, 2013) and fear of a negative impact on career advancement (Crowley & Kolenikov, 2014). Thus, organizations must be aware of potential negative repercussions and attempt to provide a variety of options for employees to use at their own discretion (Fiksenbaum, 2013). Additionally, the efficacy of such programs depends on the combination of both policies and culture; that is, when an organization has a supportive culture for work-family issues then individuals will be more likely to seek out and utilize such opportunities (Fiksenbaum, 2013).
For the family domain, emphasizing the importance of emotional and instrumental support in the reduction of spousal strain-based W-F conflict is important for reducing the negative effects associated with W-F guilt, including decreased life satisfaction (Hochwarter et al., 2007) and marital satisfaction (Judge et al., 2006), and increased psychological distress (Jones & Kugler, 1993). Therefore, training spouses on the provision of support to one another may increase the associated benefits of received support. Additionally, our findings suggest that tailoring the support provided to the type of stress experience (time-based vs. strain-based) may help in the reduction of W-F conflict and W-F guilt; however, further research is required.

**Limitations and Directions for Future Research**

The present study was limited in several ways. Firstly, the sample size was too small to allow a thorough investigation of the social support measure on the experience of W-F conflict and W-F guilt with either the cross-sectional or prospective data. More specifically, due to the large number of pathways a larger sample size would be required in order to investigate emotional and instrumental support separately within the theoretical model. Future research should examine the effects of the type of support received on stress and strain as this would provide greater insight into the alleviation of the negative outcomes associated with inter-role conflict.

Moreover, the high attrition rate from the wave one to the wave two data collection meant that the sample size for the prospective analyses may have been too low to detect some effects. Furthermore, there were not enough participants to examine the role of gender within the wave two data. Such analyses may have provided insight into the differential nature of received support on perceived guilt over time, particularly since women reported receiving significantly higher levels of nonwork support than men at time one and lower levels of nonwork support.
were found to predict a lack of participation in wave two data collection. Thus, attrition was a threat to the internal validity of this study that truncated the range on nonwork support and limited the extent that it could significantly correlate with other variables. Future research should attempt to investigate the influence of nonwork supports and gender on W-F conflict and W-F guilt over time.

Additionally, the present study was unable to investigate the influence of child(ren)’s age on the experience of W-F conflict and W-F guilt. As a result, parents included in the present study had children ranging in age from infancy to those in their mid-twenties. This is of particular note as previous research has found that life stages have a significant impact on the experience of W-F conflict (Allen & Finkelstein, 2014). In particular, individuals with children under the age of five reported higher levels of W-F conflict, while those whose children have left home reported the lowest levels (Allen & Finkelstein, 2014). Future research should aim to investigate the influence of child age on the experience of both time- and strain-based conflict, as well as W-F guilt.

Another limitation has to do with the measures that were employed. As was mentioned earlier, the work overload scale (Peterson, et al., 1995) and the adapted measure of family overload may not have accurately assessed the short-term stressor within the theoretical model. This issue reflects a larger problem within the literature in that many measures are often used interchangeably (Hecht, 2001) thereby blurring the definitions of stressor and stress (Barling & Macintyre, 1993; Cooke & Rousseau, 1984; Glazer & Beehr, 2005; Jex & Elacqua, 1999). Future research should investigate the temporal boundaries associated with each of the stressor-stress-strain categories in addition to creating a clearly defined typology with which to classify currently available measures.
Additionally, the measure of received social support (Antani, 2007) used in the present study has some limitations in terms of the interpretability of the underlying factor structure. Present findings demonstrated that only two of the four hypothesized categories emerged as distinct factors, work support for work and work support for family. The nonwork supports did not clearly separate themselves in terms of the target domain (i.e., nonwork support for work and family and spousal support for work and family). As a result, findings from the present path analysis are more difficult to interpret due to the lack of clarity surrounding the direction of support from nonwork sources. Further research is required in order to clarify the types of support received in the family domain and their associated target.

Finally, the use of cross-sectional data is problematic in terms of drawing conclusions about the associated findings. This was partially compensated for through the replication of the findings with the prospective sample. Still, it would have been beneficial to measure all variables at both waves of data collection in order to examine changes in predictors (e.g., received social support) over time. Future research investigating W-F guilt should use a longitudinal design to track stressors, received social support, and stress over time in order to better understand the dynamic relationships between them.

Although the present study made strides in our understanding of W-F guilt by examining the bidirectional nature of the construct, the within- and cross-domain effects, and the role of gender, there is still opportunity for exploration. For instance, the present research focused solely on the traditional nuclear family, which included a partner/spouse and at least one child living at home. Future research should aim to investigate the role of social support on W-F conflict and W-F guilt in single parent households, as single parents have been found to experience higher levels of WIFC and FIWC (Byron, 2005). Thus, the pattern of support received from work and
nonwork sources targeted at WIFC and FIWC may change with the elimination of spousal support.

Additionally, future research on the experience of W-F guilt should aim to investigate the role of individual characteristics, such as coping style, personality, and positive or negative affectivity, on the experience of stress and strain. For example, those who utilize negative coping strategies (e.g., denial, avoidance) may seek fewer opportunities (e.g., social support) to resolve the underlying stress (e.g., W-F conflict), which could subsequently impact the distress experienced (e.g., W-F guilt) (Watson, David & Suls, 1999).

Furthermore, previous research has found that neuroticism is a significant predictor of subjective distress (Watson, David & Suls, 1999) that, combined with the use of negative coping strategies could exacerbate the adverse outcomes experienced. Furthermore, the role of positive affectivity on the appraisal of stressful events could impact the relationships under investigation in the present study. While this previous research has been conducted on general distress, the same effects may transfer to W-F specific constructs. By better understanding the individual traits that promote healthy functioning within the context of work and family, we may be able to more accurately design policies, programs, and training for those who are struggling to balance work and family demands.

Finally, the influence of gender role orientation and values on the experience of received social support, W-F conflict and W-F guilt requires further exploration. Previous research on the role of gender in the W-F interface has often been investigated in terms of biological sex, which may have lead to inaccuracies (McElwain et al., 2004). In contrast, McElwain (2004) found that gender role orientation, which is composed of instrumentality (masculine) and expressivity (feminine), as opposed to more traditional conceptualizations of gender resulted in differences in
reported levels of FIWG. Additionally, previous research on gender role values has reported mixed results in terms of the effects on traditionalism on W-F conflict and W-F guilt (Livingston & Judge, 2008; Chappell, 2005), indicating the need for further research. In terms of social support, gender role orientation and values may differentially affect the enactment of the support process. For example, previous research has found that men who follow traditional norms of masculinity are less likely to seek support (Berger, Addis, Green, Mackowiack, & Goldber, 2013); thus, those higher in instrumentality with more traditional values may be less likely to seek support from work and nonwork sources, which could impact their experience of conflict and guilt.

**Conclusion and Contributions**

The present study expanded on previous research by examining the role of social support in the experience of W-F guilt. The results highlight the importance of receiving social support from work and nonwork sources in the reduction of W-F stress and strain. Namely, by reducing the conflict experienced as a result of participating in multiple roles, social support can help reduce the associated W-F guilt for both men and women.

The present study made several meaningful contributions to the growing body of research surrounding W-F guilt. By investigating the bidirectional nature of both W-F conflict and W-F guilt, in addition to the within- and cross-domain effects, we now have a better understanding of the influence of received support from different sources on perceived W-F stress and strain. Additionally, by separating W-F conflict into time- and strain-based conflict the context in which support affects both W-F conflict and W-F guilt becomes more apparent. Moreover, the use of a prospective sample provides the opportunity to develop inferences regarding the relationships
between variables over time. Finally, the preliminary investigation into the role of gender provides avenues for future research and highlights the complex nature of W-F guilt.

Findings from the present study highlight the importance of establishing strong supports within both the work and family domains in the reduction of W-F guilt. In particular, organizations should focus on the promotion of supportive behaviours between peers and superiors through targeted policy formation aimed at reducing both time- and strain-based W-F conflict and through an organizational culture of support. As a result, organizations may reduce the W-F guilt associated with participating in dual roles by directly addressing the specific type of underlying W-F conflict. For example, organizations may target time-based WIFC, and subsequently WIFG, through the incorporation of flexible work arrangements. Additionally, by increasing the availability and acceptability of work supports for both men and women, organizations may promote the use of work support for both work and family issues, which can subsequently impact W-F guilt. These directives may be particularly important for individuals who lack a strong supportive network outside of work.

For partners/spouses, the importance of support targeted towards strain-based conflict in order to reduce FIWG highlights the need for communication and understanding between couples, which can be applied to therapeutic settings. More specifically, by understanding the demands faced by individuals (both work and family), spouses can focus their support on reducing strain-based conflict through same domain supports, thereby impacting FIWG. Additionally, understanding the role of gender in the experience of W-F guilt is critical to ensuring that individuals are obtaining the right kinds of support to reduce rather than exacerbate the experience of W-F guilt.
Finally, for individuals, recognizing the stressors faced and the supports available is an important factor in reducing the negative stress and strain associated with inter-role conflict. Given the complex nature of W-F guilt, the importance of receiving adequate and beneficial social support is critical in the promotion of individual well-being through the reduction of W-F guilt. By better understanding the context in which W-F guilt can be reduced, we are better equipped to design targeted programs and reinforce behaviours that promote healthy employees and parents.
References


Ewles, G., Korabik, K., & Lero, D. S. (2013, June). *Work-family guilt: The role of overload and control*. Poster presented at the annual meeting of the Canadian Psychological Association, Quebec City, Quebec.


Appendix of Tables

Table 1

Wave One Demographic Characteristics ($n = 358$)

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Note: *p < .05, **p < .001. WO = work overload; FO = family overload; WSW = work support for work; WSF = work support for family; NWSW = nonwork support for work; NWSF = nonwork support for family; NWS = nonwork support; SS = spousal support; TB = time-based; SB = strain-based; WIFC = work interfering with family conflict; FIWC = family interfering with work conflict; T1 = time one; T2 = time two; WIFG = work interfering with family guilt; FIWG = family interfering with work guilt.
Table 4

Fit Indices and Communalities based on a Principle Components Analysis with Varimax Rotation for Four Social Support Variables

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Note: $\chi^2(595) = 5982.80$; Factor 1 Eigen Value = 5.89; Factor 2 Eigen Value = 4.48; Factor 3 Eigen Value = 3.95; Factor 4 Eigen Value = 3.74; Source 1 = partner/spouse; Source 3 = parents or parents-in-law; Source 5 = neighbours, friends or relatives; Source 6 = job supervisor; Source 7 = co-workers or subordinates.
Table 5

*Fit Indices for the Wave One Data Social Support Models*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>GFI</th>
<th>CFI</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model One</td>
<td>507.32**</td>
<td>27</td>
<td>.22</td>
<td>.56</td>
<td>.78</td>
<td>.47</td>
<td>.47</td>
</tr>
<tr>
<td>Model Two</td>
<td>20.07*</td>
<td>11</td>
<td>.05</td>
<td>.96</td>
<td>.99</td>
<td>.98</td>
<td>.97</td>
</tr>
<tr>
<td>Model Three</td>
<td>18.72</td>
<td>11</td>
<td>.04</td>
<td>.96</td>
<td>.99</td>
<td>.98</td>
<td>.96</td>
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</table>

Note: *$p < .05$, **$p < .001$*
### Table 6

*Predictors of Participation in Wave Two Data Collection (N = 134)*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate ($\hat{\beta}_i$)</th>
<th>SE</th>
<th>Odds Ratio ($e^{\hat{\beta}_i}$)</th>
<th>Chi-square</th>
</tr>
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<td>Family Overload</td>
<td>.06</td>
<td>0.13</td>
<td>1.06</td>
<td>0.19</td>
</tr>
<tr>
<td>Work Overload</td>
<td>.07</td>
<td>0.13</td>
<td>1.07</td>
<td>.28</td>
</tr>
<tr>
<td>WSW</td>
<td>.27</td>
<td>0.21</td>
<td>1.30</td>
<td>1.54</td>
</tr>
<tr>
<td>NWS</td>
<td>-.62*</td>
<td>0.28</td>
<td>0.54</td>
<td>4.98</td>
</tr>
<tr>
<td>SS</td>
<td>.04</td>
<td>0.25</td>
<td>1.04</td>
<td>0.03</td>
</tr>
<tr>
<td>WSF</td>
<td>.14</td>
<td>0.25</td>
<td>1.15</td>
<td>0.29</td>
</tr>
<tr>
<td>Time- Based WIFC</td>
<td>.09</td>
<td>0.15</td>
<td>1.10</td>
<td>0.37</td>
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<tr>
<td>Time- Based FIWC</td>
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<td>0.15</td>
<td>1.23</td>
<td>2.05</td>
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<td>Strain-Based WIFC</td>
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<td>0.14</td>
<td>1.11</td>
<td>0.51</td>
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<tr>
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<td>-.18</td>
<td>0.16</td>
<td>0.84</td>
<td>1.35</td>
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<tr>
<td>WIFG Time One</td>
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<td>0.15</td>
<td>0.77</td>
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<tr>
<td>FIWG Time One</td>
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<td>0.16</td>
<td>1.02</td>
<td>0.01</td>
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<td>0.63</td>
<td>2.96</td>
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<tr>
<td>Constant</td>
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<td>1.11</td>
<td>0.62</td>
<td>0.19</td>
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</tbody>
</table>

Note: *p < .05. WSW = work support for work; NWS = nonwork support; SS = spousal support; WSF = work support for family; WIFC = work interfering with family conflict; FIWC = family interfering with work conflict; WIFG = work interfering with family guilt; FIWG = family interfering with work guilt.*
Table 7

*Fit Indices for the Wave Two Data Social Support Models*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>GFI</th>
<th>CFI</th>
<th>NFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model One</td>
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<td>.12</td>
<td>.85</td>
<td>.95</td>
<td>.91</td>
<td>.88</td>
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<td>Model Two</td>
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<td>.01</td>
<td>.93</td>
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<td>1.00</td>
<td>.96</td>
</tr>
<tr>
<td>Model Three</td>
<td>24.95**</td>
<td>11</td>
<td>.10</td>
<td>.87</td>
<td>.96</td>
<td>.93</td>
<td>.89</td>
</tr>
<tr>
<td>Model Four</td>
<td>10.25</td>
<td>10</td>
<td>.01</td>
<td>.93</td>
<td>.98</td>
<td>1.00</td>
<td>.96</td>
</tr>
</tbody>
</table>

Note: *$p < .05$, **$p < .01$, ***$p < .001$. Model 1 and 3 do not contain the unidirectional path from Time Two FIWG to Time Two WIFG.
Table 8

Summary of Hypotheses and Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Direction</th>
<th>Wave One</th>
<th>Wave Two</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>TB</td>
</tr>
<tr>
<td>1a</td>
<td>WO → WSW</td>
<td>+</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1b</td>
<td>WO → NWSW</td>
<td>+</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1b (revised)</td>
<td>WO → NWS</td>
<td>+</td>
<td>ns</td>
<td>n/a</td>
</tr>
<tr>
<td>1c</td>
<td>WO → SS</td>
<td>+</td>
<td>ns</td>
<td>n/a</td>
</tr>
<tr>
<td>2a</td>
<td>FO → WSF</td>
<td>+</td>
<td>ns</td>
<td>n/a</td>
</tr>
<tr>
<td>2b</td>
<td>FO → NWSF</td>
<td>+</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2b (revised)</td>
<td>FO → NWS</td>
<td>+</td>
<td>ns</td>
<td>n/a</td>
</tr>
<tr>
<td>2c</td>
<td>FO → SS</td>
<td>+</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>3a</td>
<td>WSW → WIFC</td>
<td>-</td>
<td>✓</td>
<td>ns</td>
</tr>
<tr>
<td>3b</td>
<td>WSW → FIWC</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4a</td>
<td>NWSF → WIFC</td>
<td>-</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>4a (revised)</td>
<td>NWS → WIFC</td>
<td>-</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>4b</td>
<td>NWSF → FIWC</td>
<td>-</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>4b (revised)</td>
<td>NWS → FIWC</td>
<td>-</td>
<td>+</td>
<td>ns</td>
</tr>
<tr>
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</tr>
<tr>
<td>5b</td>
<td>WSF → FIWC</td>
<td>-</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>6a</td>
<td>NWSW → WIFC</td>
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<td>n/a</td>
</tr>
<tr>
<td>6a (revised)</td>
<td>SS → WIFC</td>
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<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>6b</td>
<td>NWSW → FIWC</td>
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<td>n/a</td>
</tr>
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<td>6b (revised)</td>
<td>SS → FIWC</td>
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</table>

(table continues)
<table>
<thead>
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<td>Type of W-F Conflict</td>
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<td>Hypothesis</td>
<td>Relationship</td>
<td>Direction</td>
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<tr>
<td>7</td>
<td>FIWC → WIFC</td>
<td>+</td>
</tr>
<tr>
<td>8</td>
<td>WIFC → WIFG</td>
<td>+</td>
</tr>
<tr>
<td>9</td>
<td>FIWC → FIWG</td>
<td>+</td>
</tr>
</tbody>
</table>

Note: TB = time-based; SB = strain-based; WO = work overload; FO = family overload; WSW = work support for work; NWSW = nonwork support for work; NWS = nonwork support; SS = spousal support; WSF = work support for family; NWSF = nonwork support for family; WIFC = work interfering with family conflict; FIWC = family interfering with work conflict; WIFG = work interfering with family guilt; FIWG = family interfering with work guilt.
Table 9

*Summary of Social Support and W-F Conflict Item-Level Analyses*

<table>
<thead>
<tr>
<th>Item</th>
<th>WIFC Time-Based</th>
<th>WIFC Strain-Based</th>
<th>FIWC Time-Based</th>
<th>FIWC Strain-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 Source 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Q1 Source 3</td>
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<tr>
<td>Q1 Source 5</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Q1 Source 6</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Q1 Source 7</td>
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<td>+</td>
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<tr>
<td>Q2 Source 1</td>
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<tr>
<td>Q2 Source 3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Q2 Source 5</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Q2 Source 6</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Q2 Source 7</td>
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</tr>
<tr>
<td>Q3 Source 1</td>
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<td>Q3 Source 3</td>
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<td>Q3 Source 5</td>
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<tr>
<td>Q4 Source 1</td>
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<table>
<thead>
<tr>
<th>Item</th>
<th>WIFC Time-Based</th>
<th>WIFC Strain-Based</th>
<th>FIWC Time-Based</th>
<th>FIWC Strain-Based</th>
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<td>Q5 Source 3</td>
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<td>Q6 Source 1</td>
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<td>Q6 Source 3</td>
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<td>Q8 Source 6</td>
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<td>Q8 Source 7</td>
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</table>

(table continues)
<table>
<thead>
<tr>
<th>Item</th>
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<th>FIWC</th>
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<td>Strain-Based</td>
</tr>
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<td>Q9 Source 1</td>
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<td>Q9 Source 3</td>
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<td></td>
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<tr>
<td>Q9 Source 7</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Source 1 = partner/spouse; Source 3 = parents or parents-in-law; Source 5 = neighbours, friends or relatives; Source 6 = job supervisor; Source 7 = co-workers or subordinates.
### Table 10

*Summary of Social Support and W-F Guilt Item-Level Analyses*

<table>
<thead>
<tr>
<th>Item</th>
<th>WIFG</th>
<th>FIWG</th>
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</thead>
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<td>Source 3</td>
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<td>-</td>
<td>+</td>
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<td>Q2</td>
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<td>Q3</td>
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<tr>
<td>Q4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Q6</td>
<td>-</td>
<td></td>
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<tr>
<td>Q7</td>
<td></td>
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</tr>
<tr>
<td>Q8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Note: Source 1 = partner/spouse; Source 3 = parents or parents-in-law; Source 5 = neighbours, friends or relatives; Source 6 = job supervisor; Source 7 = co-workers or subordinates.
Appendix A

Work Overload

Please use the scale below to respond to the following statements as they pertain to your WORK.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. There is a need to reduce some parts of my role.
2. I feel overburdened in my role.
3. I have been given too much responsibility.
4. My workload is too heavy.
5. The amount of work I have to do interferes with the quality I want to maintain.
Appendix B

Family Overload

Please use the scale below to respond to the following statements as they pertain to your HOME LIFE.

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
</tbody>
</table>

1. There is a need to reduce some parts of my role
2. I feel overburdened in my role.
3. I have been given too much responsibility.
4. My workload is too heavy.
5. The amount of work I have to do interferes with the quality I want to maintain.
Appendix C

Social Support

1. Please indicate how often you receive support with respect to CHILDCARE from:

<table>
<thead>
<tr>
<th>1 Never</th>
<th>2 Not Often</th>
<th>3 Sometimes</th>
<th>4 Frequently</th>
<th>5 Not Applicable</th>
</tr>
</thead>
</table>

Partner/spouse  
Child(ren)  
Parents or parents-in-law  
Paid household helper  
Neighbours, friends or relatives  
Job Supervisor  
Co-workers or subordinates

2. Please indicate how often you receive support with respect to HELP WITH HOUSEHOLD TASKS from:

<table>
<thead>
<tr>
<th>1 Never</th>
<th>2 Not Often</th>
<th>3 Sometimes</th>
<th>4 Frequently</th>
<th>5 Not Applicable</th>
</tr>
</thead>
</table>

Partner/spouse  
Child(ren)  
Parents or parents-in-law  
Paid household helper  
Neighbours, friends or relatives  
Job Supervisor  
Co-workers or subordinates

3. Please indicate how often you receive support with respect to your WORK-RELATED DUTIES from:

<table>
<thead>
<tr>
<th>1 Never</th>
<th>2 Not Often</th>
<th>3 Sometimes</th>
<th>4 Frequently</th>
<th>5 Not Applicable</th>
</tr>
</thead>
</table>

Partner/spouse  
Child(ren)
Parents or parents-in-law  
Paid household helper  
Neighbours, friends or relatives  
Job Supervisor  
Co-workers or subordinates

4. Please indicate how often you receive support with respect to HELPFUL WORK-RELATED INFORMATION (e.g., advice, suggestions) from:

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<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
</tr>
</tbody>
</table>

Partner/spouse  
Child(ren)  
Parents or parents-in-law  
Paid household helper  
Neighbours, friends or relatives  
Job Supervisor  
Co-workers or subordinates

5. Please indicate how often you receive support with respect to HELPFUL FAMILY-RELATED INFORMATION (e.g., advice, suggestions) from:

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<th>4</th>
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<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
</tr>
</tbody>
</table>

Partner/spouse  
Child(ren)  
Parents or parents-in-law  
Paid household helper  
Neighbours, friends or relatives  
Job Supervisor  
Co-workers or subordinates

6. Please indicate how often you receive support with respect to ENCOURAGEMENT/APPRECIATION regarding events in your FAMILY LIFE from:

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<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
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</table>
7. Please indicate how often you receive support in the form of LISTENING TO AND DISCUSSING WORK-RELATED PROBLEMS from:

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</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Partner/spouse
Child(ren)
Parents or parents-in-law
Paid household helper
Neighbours, friends or relatives
Job Supervisor
Co-workers or subordinates

8. Please indicate how often you receive support with respect to ENCOURAGEMENT/APPRECIATION regarding events in your WORK LIFE from:

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<tbody>
<tr>
<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Partner/spouse
Child(ren)
Parents or parents-in-law
Paid household helper
Neighbours, friends or relatives
Job Supervisor
Co-workers or subordinates
9. Please indicate how often you receive support in the form of LISTENING TO AND DISCUSSING FAMILY-RELATED PROBLEMS (e.g., support, concern for your well-being) from:

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<td></td>
<td>Never</td>
<td>Not Often</td>
<td>Sometimes</td>
<td>Frequently</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Partner/spouse
Child(ren)
Parents or parents-in-law
Paid household helper
Neighbours, friends or relatives
Job Supervisor
Co-workers or subordinates

10. In general how satisfied are you with the support you receive from your…

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<tbody>
<tr>
<td></td>
<td>Very Dissatisfied</td>
<td>Dissatisfied</td>
<td>Neutral</td>
<td>Satisfied</td>
<td>Very Satisfied</td>
</tr>
</tbody>
</table>

Partner/spouse
Child(ren)
Parents or parents-in-law
Paid household helper
Neighbours, friends or relatives
Job Supervisor
Co-workers or subordinates
Appendix D

Work-Family Conflict

Please use the scale below to respond to the following statements as they pertain to your WORK AND FAMILY LIFE.

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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. My work keeps me from my family activities more than I would like.
2. The time I spend on family responsibilities often interferes with my work.
3. When I get home from work I am often too physically tired to participate in family activities/responsibilities.
4. I have to miss family activities due to the amount of time I must spend on work responsibilities.
5. Due to all the pressure at work, sometimes when I come home I am too stressed to do the things I enjoy.
6. The time I spend with my family often causes me to not spend time in activities at work.
7. Due to the stress at home, I am often preoccupied with family matters at work.
8. I have to miss work activities due to the amount of time I must spend on family responsibilities.
9. Because I am often stressed from family responsibilities, I have a hard time concentrating on my work.
10. The time I must devote to my job keeps me from participating in household responsibilities and activities.
11. I am often so emotionally drained when I get home from my work that it prevents me from contributing to my family.
12. Tension and anxiety from my non-work life often extend to my job.
Appendix E

Work-Family Guilt

Please use the scale below to respond to the following statements.

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<tbody>
<tr>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

1. I regret not being around for my family as much as I would like to.
2. I feel guilty for not being able to take care of my child(ren) as well as I would like to.
3. I feel bad because I frequently have to take time away from my family to deal with issues happening at work.
4. I feel guilty for not showing as much interest to my spouse/partner as I wish.
5. I am worried about the quality of my work because I often put my family before my job.
6. I regret missing work due to family responsibilities.
7. I feel bad because I frequently have to take time away from work to deal with issues happening at home.
Appendix F
Participant Cover Letter for Survey (from McElwain, 2008)

Dear Potential Participant,

We are conducting a study examining the balance employees have between their work and their family lives. Your participation in this research would be extremely valuable to us. We appreciate the fact that those who are trying to juggle many work and family responsibilities are very busy people who find it extremely difficult to find the time to participate in research. However, only you can give us the information we need to understand the impact of the competing demands of work and family on your life. An increased knowledge about work-family balance is important because it will help us to: 1) identify the particular stressors that employed individuals face, 2) design work environments that are more family-friendly, and 3) create effective programs to help people manage their work and family lives.

We are looking for full-time employees in a dual-earner couple with a child under 21 living at home. You can participate in this important research by completing a survey that should take about 45-60 minutes to complete. Further, by participating in this research, you will automatically be entered in a draw for a prize.

This project has been approved by the University of Guelph Research Ethics Board. For information about the rights of research participants, you may contact S. Auld at the Office of Research, at (519) 824-4120, X56606 or sauld@uoguelph.ca. Individuals interested in participating in this study or who want further information should contact Allyson McElwain (amcelwai@uoguelph.ca) for further information.

Professor Karen Korabik
Department of Psychology
University of Guelph
korabik@psy.uoguelph.ca
(519) 824-4120 extension 53188

Allyson McElwain, M.A.
Department of Psychology
University of Guelph
amcelwai@uoguelph.ca
(519) 824-4120 extension 58931
Appendix G
Participant Consent Form for Survey (from McElwain, 2008)

Dear Research Participant,

We are conducting a study examining the balance employees have between their work and their family lives. The objective of the present research is to gather information regarding how you feel about your work and family roles. We are attempting to identify the factors that assist in balancing these two roles, and also examining the outcomes that having an imbalance may create. In order to investigate these factors, we are asking you to complete an online survey that should take about 45-60 minutes of your time.

THIS STUDY IS IN NO WAY AFFILIATED WITH [ORG NAME] AND THUS WILL HAVE NO BEARING ON YOUR EMPLOYMENT STATUS. YOUR EMPLOYER WILL NOT BE GIVEN YOUR RESULTS.

Please note that you are under no obligation to answer any questions that you do not wish to, and that you may withdraw from the study at any time. Your participation in this study will enlighten us regarding the types of issues that you experience in your work and family roles. Such an understanding will allow us to better address issues of work and family balance in organisations.

When the study has been completed, we will send you information about a website you can visit if you would like to receive the results. Should you have any questions or concerns, please feel free to contact me at any time.

If you would like to participate in this study it is imperative that you read the below consent form and detailed information about the study itself. You will indicate consent to participate by opening the attached survey. Please see below before opening the attachment.

Again, we value your opinions and thank you for agreeing to participate in this study. Your perceptions will be invaluable to us, and hence to the quality of information we can provide to organisations and policy makers concerning the needs and experiences of professionals.

If you wish to participate, please read the consent form below.
Consent Form

You are being asked to provide information about your work and family life. You have been contacted for the purpose of providing your views about the nature of the balance between your work and family roles.

I have read the terms of the Work-Family Balance study being conducted by Dr. Karen Korabik and Allyson McElwain and...

I will be asked to give my perspective about my work and family roles.

My participation is voluntary and I am free to withdraw from the study at ANY TIME without penalty of any kind. Further, I may refuse to answer any question that I do not wish to answer.

The information I provide will be kept confidential by the researchers.

The data is being collected via an [online] survey, and therefore a record will be kept of my responses, but my responses will not be identifiable and my name will be separated from the survey.

I understand that the data will be destroyed after 10 years.

I consent to the publication of the research results, with the understanding that the information is reported in group form only. This means that no individual identification can be made. In addition, no one outside the research team, including myself, will be given access to the individual data.

The data that I provide may be used for other research purposes.

When the study has been completed, I will be sent information about a website I can visit if I would like to receive the results.

Your name will be entered in a draw for one prize of $100. You will be automatically entered for the draw when you complete the survey. The chances that you will win are greater than 1 out of 1,500. Records of your e-mail account will be destroyed once the survey has been submitted, the lottery draws have taken place and you have received feedback information.

If you understand the above and wish to participate in the study please read the instructions below and open the attached survey.
Instructions on how to indicate consent to participate

We would like you to take 45-60 minutes to complete the attached survey. The survey is designed to provide information about work-family roles. The information that you provide is confidential. Your survey data will be sent back to the external survey provider (Centre for Families Work and Well-being) as an anonymous email. Your information will be recorded using an anonymous password.

Please read all instructions carefully before beginning.

INSTRUCTIONS:

1) Attached to this email message is an html file “filenamehere.html” containing the online survey. Please open the file in a separate window (DO NOT open the file in your email browser).
2) The survey will ask you to record your email account so that we may contact you with feedback following the completion of the study.
3) To respond to the survey questions, use the left click of your mouse (as if it were a pen). If you have responded to the questions properly, a black bullet will appear when you clicked on your mouse.
5) At the end of the survey, you will see a SUBMIT button. Please click on the SUBMIT button once you have completed the survey.
If you have any technical difficulties or additional questions concerning the survey, please contact:

Dr. Karen Korabik
Department of Psychology
University of Guelph
kkorabik@uoguelph.ca
(519) 824-4120 extension 53188

Allyson McElwain M.A.
Department of Psychology
University of Guelph
amcelwai@uoguelph.ca
(519) 824-4120 extension 58931

Thank you for participating in the Work-Family Balance survey.