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### **Citation**

Pluut, H., Ilies, R., Curşeu, P. L., & Liu, Y. (2018). Social support at work and at home: Dual-buffering effects in the work-family conflict process. *Organizational Behavior And Human Decision Processes*, 146, 1-13. doi:10.1016/j.obhdp.2018.02.001

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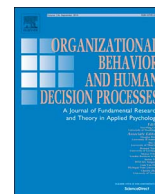
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DOI: 10.1016/j.obhdp.2018.02.001



## Social support at work and at home: Dual-buffering effects in the work-family conflict process



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### ARTICLE INFO

#### Keywords:

Work-family conflict  
Emotional exhaustion  
Social support  
Buffer  
Experience-sampling methodology

### ABSTRACT

Using experience-sampling methodology, the present study offers a within-individual test of the buffering model of social support in the daily work-family conflict process. Building on the conceptualization of social support as a volatile resource, we examine how daily fluctuations in social support at work and at home influence the process through which work interferes with family life. A total of 112 employees participated in the study and were asked to respond to daily surveys in the work and home domains. Results showed that social support at work and at home—as volatile resources—buffered the daily work-family conflict process within their respective domains. First, a supportive supervisor mitigated the within-individual effect of workload on emotional exhaustion. Second, a supportive spouse protected the strained employee from the effect of emotional exhaustion on work-family conflict, and spousal support also moderated the indirect effect from workload to work-family conflict through emotional exhaustion. The findings suggest that enacting a dual social support system can effectively reduce the adverse effects of excessive job demands on exhaustion and work-family conflict, but buffering effects are highly dependent on the timely availability of social support.

### 1. Introduction

A burgeoning body of research conducted over the last few decades has shown that the potential impact of work on employees' everyday lives is expanding. The ever-increasing demands on the job (Kubicek, Paškvan, & Korunka, 2015), the rapid growth of requests for extended work availability (Dettmers, 2017), and the dramatic rise of dual-earner households (Masterson & Hoobler, 2015) are but a few of the developments that have contributed to the prevalence of work-family conflict across the globe (Allen, French, Dumani, & Shockley, 2015). Work-family conflict refers to “a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect” (Greenhaus & Beutell, 1985, p. 77). Struggles in managing both work and family occur almost daily and have consequences for employees and their families. Work-family conflict negatively affects performance and satisfaction in the work domain, diminishes mental and physical health outcomes, leads to parental stress as well as reduced marital and family satisfaction (Peeters, Ten Brummelhuis, & Van Steenbergen, 2013), and impairs social interactions at home, thereby negatively affecting the spouse (Bakker, Demerouti, & Dollard, 2008).

In light of the societal trends noted above, it is not surprising that concerns are being raised about how employees, especially members of dual-earner couples, can navigate their daily lives and balance work and family responsibilities. Accordingly, it is critical to understand the mechanisms through which work interferes with family on a daily basis and find ways to intervene in this work-family process. In their conceptual piece on the work-home resources model, Ten Brummelhuis and Bakker (2012) explicitly discussed the notion that many work-family processes, such as those by which work depletes employees and leaves them with less energy for dealing with family responsibilities, are relatively short-term and occur on a daily basis. These authors recommended that processes linking work and family should be studied at the day-to-day level, which is what we do in the research reported herein. We examine the spillover effect of workload, which is probably the most generic and common demand on the job, across the work-family boundary, as it happens at the daily level.

In relating variations in workload across days to day-to-day changes in work-family conflict, we adopt a twofold focus. First, this paper builds on prior research that has pointed at emotional exhaustion as the key dimension of burnout (Wright & Cropanzano, 1998) and a

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widespread and impactful type of work-related strain (Gaines & Jermier, 1983). Much has been written about job strain and burnout (Cordes & Dougherty, 1993) and how these affect individual employees and their families (Jackson & Maslach, 1982), yet a better understanding of how emotional aspects of work-induced strain can explain the daily occurrence of work-family conflict requires the examination of emotional exhaustion as part of the daily work-family process. In line with the work-home resources model (Ten Brummelhuis & Bakker, 2012), which explicates depleting processes underlying work-family spillover, we aim to uncover the role of depletion of emotional resources in the process by which perceptions of high workload produce work-family conflict. Thus, we propose that emotional exhaustion elucidates (as a mediator) the day-to-day relationship between workload and work-family conflict.

Second, and perhaps more importantly, this paper focuses on what can be done to buffer the effect of workload on emotional exhaustion and also the effects of workload and exhaustion on work-family conflict. Here, we build on the research stream that has focused on how different forms of social support may reduce work-family conflict (e.g., Carlson & Perrewé, 1999; Kossek, Pichler, Bodner, & Hammer, 2011). We contribute to a long-standing debate in the work-family literature about the validity and merit of the buffering model of social support, hereby focusing on the social support an employee perceives to receive daily in both the work and home domains. As alluded to earlier, following Ten Brummelhuis and Bakker (2012), we conceptualize and study the work-family process as it occurs daily. Capturing the daily work-family process has the potential to more accurately identify when and how different sources of social support buffer the work-family conflict process. We distinguish the resource depletion stage of the process—which happens at work and is reflected in the relationship linking workload to emotional exhaustion—and the spillover stage, which links energy depletion (emotional exhaustion) to work-family conflict experienced at home. Disentangling these two stages allows us to take a dual view of social support, distinguishing between work-based (i.e., coworkers and supervisor) and home-based (i.e., spouse) sources of support. These distinct forms of social support function as buffers for the resource depletion and spillover stages, respectively, and both can be targets of interventions.

In sum, we examine spillover effects of daily variations in workload on work-family conflict as mediated by emotional exhaustion and as moderated by daily levels of social support. Our theoretical approach in this paper integrates the work-home resources model (Ten Brummelhuis & Bakker, 2012) with the buffering model of social support (Cohen & Wills, 1985). Our study is unique in its focus in that we (a) disentangle stages of the daily work-family conflict process, (b) examine daily fluctuations in social support as a volatile resource, and (c) discern effects with respect to the source of social support. In doing so, we offer a thorough understanding of what brings about and prevents work-family conflict on a daily basis in a sample of dual-earner couples.

## 2. The role of social support in the work-family conflict process

This study sheds light on an unresolved puzzle in prior research on social support. Considerable debate revolves around the specific role of social support in reducing work-family conflict (Carlson & Perrewé, 1999; Michel, Mitchelson, Pichler, & Cullen, 2010; Seiger & Wiese, 2009; Viswesvaran, Sanchez, & Fisher, 1999). Consistent with the more basic psychological theory on the role of social support in improving psychological and physiological health (Cohen & Wills, 1985), social support can be considered either a direct antecedent of work-family conflict (the *main-effect* model) or a moderator for the relationship between job demands and work-family conflict (the *buffering* model). And, as Cohen and Wills (1985) noted with respect to the effects on psychological and physical health, “understanding the relative merits of these models has practical as well as theoretical importance because

each has direct implications for the design of interventions” (pp. 310–311). The main-effect model implies that, while certainly beneficial in reducing work-family conflict, social support cannot mitigate the detrimental effects of excessive demands, which are so prevalent in today’s challenging jobs. That is, the main-effect model suggests that increasing social support reduces work-family conflict (or emotional exhaustion) for the average worker or the average day regardless of workload. Whereas this would surely be a beneficial effect, it would not affect the relationship between workload and work-family conflict, and higher workloads would still increase work-family conflict (yet perhaps from a lower baseline than without the main effect of social support). The buffering model, on the other hand, if supported, suggests that workloads can be increased without also increasing work-family conflict (or emotional exhaustion), as long as adequate social support is offered. However, the general pattern of empirical findings favors the main-effect model and has provided relatively weak support for the buffering model of social support in the work-family process (e.g., Carlson & Perrewé, 1999; Luk & Shaffer, 2005; Seiger & Wiese, 2009).

We do not contest the validity of these findings; however, the overreliance on cross-sectional data in work-family research (Lapierre & McMullan, 2016) has prevented research from advancing our understanding of the psychological mechanisms by which social support can reduce work-family conflict beyond the simple main-effect model. The buffering model of social support posits that, for social support to have buffering (as opposed to main) effects, it must be responsive to the coping requirements elicited by a stressor (e.g., workload) or stress experience (e.g., emotional exhaustion) (Cohen & McKay, 1984). Therefore, when testing the buffering hypothesis, it is necessary to take into account several contingencies and examine *who* provides support and *when* (House, 1981; Jacobson, 1986). It has been argued that studies that do not incorporate such refinements in their design would have results biased toward main-effect conclusions (Cohen & Wills, 1985). Hence, it may be promising for this stream of research to put study design and level of analysis issues under close scrutiny, in order to provide a sensitive and adequate test of the buffering hypothesis, because “this test is particularly affected by design weaknesses” (Cohen & Wills, 1985, p. 316).

Cross-sectional data force scholars to focus on differences in social support levels *between* individuals and they subsequently treat social support as a time-invariant construct. Yet more recent findings on day-to-day fluctuations in organizational citizenship and helping behaviors (e.g., Halbesleben & Wheeler, 2015; Koopman, Lanaj, & Scott, 2015) suggest that social support might not be consistently available to employees. That is, social support can also be understood as a volatile resource (i.e., on some days individuals receive more support than on other days; see Ten Brummelhuis & Bakker, 2012). If social support is a resource that can be conceptualized both as volatile and stable, it is imperative that scholars pursue investigations that aim to uncover at which level of conceptualization social support works best in buffering stress and reducing work-family conflict (see also Ilies, Aw, & Pluut, 2015).

At a conceptual level, the benefits of social support in reducing the detrimental effects of workload on work-family conflict should be highly dependent on the *timely* availability of social support. Put differently, social support can only buffer the effects of a stressor if it is responsive to the occurrence of that stressor, such as work (over)load, which can be higher on some days than on other days. It is therefore important to address the temporal dimension of the constructs involved. Studying day-to-day fluctuations in work and family experiences, while further taking into account that social support is not received consistently across days, would be an important step forward in testing the buffering model of social support in the work-family conflict process. Hence, we propose an alternative conceptualization of social support and work-family conflict and of the processes by which social support can reduce the occurrence of work-family conflict when workloads are high—a conceptualization that aligns better theoretically

with the mechanisms underlying the buffering hypothesis and the research questions involved. Specifically, we argue that (a) the process leading up to work-family conflict should be studied on a day-to-day basis (Ilies et al., 2007) and (b) social support should be conceptualized as a volatile resource that can be higher on some days than on other days (Ten Brummelhuis & Bakker, 2012).

### 3. Theory and hypotheses

In building our conceptual model, we start from the work-home resources (W-HR) model (Ten Brummelhuis & Bakker, 2012) to examine the daily process through which work-family conflict occurs. The W-HR model provides a process view on work-family conflict in which work demands impair functioning at home through the depletion of personal resources (i.e., energies). A second and related element of the W-HR model is the acknowledgement that work-family experiences vary significantly from day to day. Work demands are *temporal* in nature and influence *daily* outcomes in the family domain through a change in *volatile* personal resources. Emotional exhaustion is a key marker of resource depletion as a result of demanding experiences on the job (Halbesleben & Bowler, 2007). Thus, in trying to understand what brings about work-family conflict, this study tests the day-to-day mediation sequence in which workload influences emotional exhaustion at the end of the workday, which ultimately leads to the experience of work-family conflict when at home.

The W-HR model also incorporates a focus on conditional factors (i.e., resources) that make it more, or less, likely for work-family conflict to occur. Because “the broad array of resources that allow people to withstand stress are, to a large extent, social” (Hobfoll, Freedy, Lane, & Geller, 1990, p. 471), we integrate the W-HR model and the buffering model of social support (Cohen & McKay, 1984; Cohen & Wills, 1985) in our examination of what can be done to prevent high workloads from producing work-family conflict. We test the buffering model of social support within the daily work-family conflict process. In our theorizing, we take into account the timing of different sources of social support during the day. Importantly, we separate the two aspects of the work-family conflict process, one occurring at work (workload depletes emotional resources) and one occurring at home (depleted resources lead to work-family conflict), which enables us to examine distinct buffering effects of two types of social support (i.e., at work and at home) in their respective domains. In sum, we propose an integrated model examining how social support at work and at home—as volatile resources—moderate the daily sequence of experiences that create work-family conflict. The full model that we test in this study is provided in Fig. 1.

#### 3.1. The work-family conflict process

Workload is a quantitative job demand and refers to the volume (having many things to do) and pace (having to work fast and under time pressure) of work (Spector & Jex, 1998). On days when higher workload is experienced, resource drain is more likely to occur (Ten Brummelhuis & Bakker, 2012). A high volume and pace of work require

that effort is invested in the work domain and this takes up personal resources. Resources (energies) are finite and, as a consequence, fewer resources are available for the family domain (Edwards & Rothbard, 2000), thus employees should experience heightened work-family conflict on days when their workload is higher. With some exceptions (e.g., Williams & Alliger, 1994), findings from within-individual studies are generally in line with the proposition of the W-HR model that higher job demands increase end-of-day work-family conflict (Butler, Grzywacz, Bass, & Linney, 2005; Ilies et al., 2007).

However, there has been little research on the processes (i.e., mediating constructs) through which workload results in work-family conflict. Resource-based models, such as the W-HR model, posit that negative effects of work demands on family life occur due to the depletion of resources. In this paper, to align our hypotheses with the theoretical explanation based on personal resources from the W-HR model, we focus on emotional exhaustion, which “is characterized by a lack of energy and a feeling that one’s emotional resources are used up” (Cordes & Dougherty, 1993, p. 623). Interest in emotional exhaustion has grown rapidly over the years because it is considered the primary component of burnout (Wright & Cropanzano, 1998) and has become organizational reality for many employees (Halbesleben & Bowler, 2007). It is therefore important to understand whether this emotional type of work-related strain can explain the daily occurrence of work-family conflict. Several within-individual studies have shown that emotional exhaustion varies considerably from day to day and is predicted by fluctuating levels of daily workload (Barling & Macintyre, 1993; Teuchmann, Totterdell, & Parker, 1999). Thus, high daily workload, as a stressor, leaves employees feeling exhausted by the end of their workday, which may further lead to the experience of work-family conflict at home because feelings of exhaustion will prevent employees from effectively participating in family life.

Although we know little about daily emotional exhaustion as a precursor of work-family conflict at the day-to-day level, a recent study by Ilies, Huth, Ryan, and Dimotakis (2015) suggests that depletion of emotional resources is detrimental to family functioning more so than depletion of other (e.g., cognitive) resources. Thus, we expect that emotional exhaustion can explain why high workload leads to work-family conflict. Indeed, research has shown that emotional exhaustion (and burnout in general) has interpersonal consequences (Cordes & Dougherty, 1993) in that not only the individual suffers but relationships with family members can deteriorate as well. Jackson and Maslach (1982) studied the detrimental effects of a husband’s burnout on the quality of family life. They found that a burned-out husband displayed more anger, was less involved in family matters, was more likely to spend his free time away from the family, and suffered from lower marital satisfaction. In the same study, wives reported that emotionally exhausted husbands complained more about problems and were more upset and tense at home. In dual-earner couples, when both partners have endured high workloads during the day and feel drained upon arrival at home, such spillover effects may be even more pronounced (Repetti, Wang, & Saxbe, 2009). Thus, in line with the W-HR model, which proposes that high daily work demands deplete personal resources that employees need for fulfilling their family roles, we put forward the following hypothesis.

**Hypothesis 1.** Within individuals, emotional exhaustion experienced at the end of the workday mediates the positive relationship between daily workload and work-family conflict experienced at home.

#### 3.2. Social support as a buffering mechanism

In the preceding section, we posited that emotional exhaustion may explain the resource-depleting effects of high workloads on work-family conflict. Now we turn our attention to the conditions under which this process is more, or less, likely to occur; that is, we build a case that social support at work and at home influence the strength of this

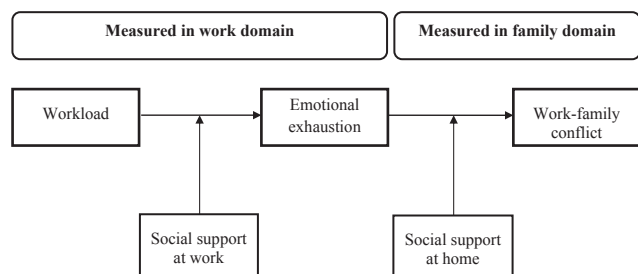


Fig. 1. Overall conceptual model.



process. We argue that alternate resources, such as those associated with social support, attenuate the relationship between workload and work-family conflict via emotional exhaustion.

Social support refers to helpful behaviors such as showing concern, giving advice, lending a hand, or providing relevant feedback (House, 1981). Many scholars have proposed that social support can protect employees from the stressful effects of job demands on job strain (Van der Doef & Maes, 1999) and work-family conflict (Carlson & Perrewé, 1999). In their seminal paper, Cohen and Wills (1985) explained the stress buffering mechanisms through which social support may reduce the effects of stress on psychological and physiological health. First, social support can influence the appraisal process (i.e., potential stressors are not appraised as being stressful in the presence of social support). Second, even if potential stressors are appraised as being stressful, social support may result in a more positive reappraisal or facilitate adjustive counter responses. Although intuitively appealing, empirical evidence for the buffering role of social support for work stress has been mixed (see e.g., Viswesvaran et al., 1999).

Conceptually, social support can only operate as an effective buffer if it is responsive to the occurrence of a stressor or strain (Cohen & McKay, 1984). Responsiveness means on the one hand that social support is provided at the right time (Jacobson, 1986) and on the other hand that social support is available from sources closely related to the stressor or strain in question (i.e., from those people who are best able to help in a particular situation) (LaRocco, House, & French, 1980). Therefore, we discern effects both with respect to the timing and source of social support. A closer look at the process of work-family conflict elucidates when and how different sources of support can reduce work-family conflict. The two-stage model of work-family conflict proposed in this paper implies that social support influences the process linking workload to work-family conflict in two distinct ways; that is, social support can *prevent* strain (such that high daily workload does not produce emotional exhaustion in the employee by the end of the workday) or help *manage* strain (such that feelings of exhaustion do not translate into work-family conflict at home). We propose that these dual-buffering effects involve different timing during the day and different support functions, which makes it imperative to look at different sources of social support. Our two-stage model of work-family conflict thus sets the stage for taking a dual view of social support, distinguishing between support at work (from coworkers and supervisor) and support at home (from the spouse).

Drawing a parallel to Cohen and Wills' (1985) theoretical arguments for the buffering model of social support, we propose that social support at work and at home have distinct functions and buffer in a dual fashion the workload–emotional exhaustion–work-family conflict process. Our theorizing regarding their differential buffering effects is based on the notion that coping requirements for stressors may differ from those for strain (Cohen & McKay, 1984) and that specific sources of social support may be more beneficial in their respective domains (Byron, 2005; Ford, Heinen, & Langkamer, 2007).

First, social support *at work* can prevent high workloads from depleting personal resources (i.e., attenuate their effect on emotional exhaustion), perhaps through the appraisal of a high workload as non-stressful or by making employees less reactive to perceived stress. Informational and instrumental forms of support enable employees to more effectively tackle their workloads, while emotional support may help employees to psychologically cope with the stressful nature of overload. Supportive social interactions also increase positive affect (see Watson, 2000), which may make employees more resilient in the face of a high volume and pace of work (Fredrickson, Tugade, Waugh, & Larkin, 2003). Thus, social support from coworkers and supervisor provides the employee with alternate resources when dealing with higher workloads, thereby reducing the resource loss that is typically occurring in the absence of social support.

In sum, with regard to the stressor–strain effect in our model (the workload–emotional exhaustion link), social support is provided in

order to prevent a stress reaction (i.e., strain) in the employee. We propose that social support from work sources is most likely to prevent strain in the face of high workloads because coworkers and supervisors can provide resources needed to deal with such workloads. Thus, as a first line of defense against the process by which workload produces work-family conflict, we hypothesize that social support at work will minimize the resource loss stemming from high workloads, thus preventing a stress reaction in the employee and lowering the level of strain that he or she brings home.

**Hypothesis 2.** Daily social support at work (from coworkers and supervisor) moderates the within-individual effect of workload on emotional exhaustion such that this relationship is weaker on days when one receives more rather than less social support at work.

Second, even if personal resources become depleted, social support *at home* can be a buffer to manage strain. As Ten Brummelhuis and Bakker (2012) noted, “people with more resources are less negatively affected when they face resource drains because they possess substitute resources” (p. 547). We posit that support at home offers substitute resources (i.e., different from those drained when emotionally exhausted) that can be used to deal with family demands, thus alleviating the effect of emotional exhaustion on family role fulfillment (i.e., on work-family conflict). Such resources may come in the form of positive affect that is induced by supportive interactions at home (Watson, 2000), and positive affect can enable employees to more effectively perform their family role. Indeed, in a daily study, Iliès et al. (2007) found that on evenings when they experienced more positive affect employees engaged in more social activities with the family. It is also possible that support at home leads to a quicker recovery from exhaustion because supportive spouses most likely allow employees to replenish resources early during their time at home, enabling them to deal with family demands later in the evening. On this point, using daily repeated measurements, Repetti (1989) found that a supportive spouse facilitated partner's social withdrawal, which is an effective recovery strategy after a demanding workday.

Of note is that the support system at home may be in jeopardy in dual-earner couples. When members of dual-earner couples are emotionally exhausted from work, it is important they offer each other support in various ways. Interestingly, studies have demonstrated that if one's spouse also works, support may be lacking. For instance, in a study among dual-earner couples, Story and Repetti (2006) observed that demanding days at work made both husbands and wives distracted and nonresponsive toward their spouses in the evening. Members of dual-earner couples may thus be particularly susceptible to work-family conflict because they possess fewer substitute resources that could be used as a buffer to manage strain (i.e., emotional exhaustion).

In sum, with respect to the strain–work-family conflict effect, the support provider attempts to prevent the work stress process from influencing family life, and we posit that the spouse is most likely to fulfill this role; as a border keeper (Clark, 2000), he or she can assist in replenishing personal resources that got lost by attending to high workloads, thus preventing resource depletion from translating into work-family conflict. Thus, we further hypothesize that social support at home will counterbalance any resource loss caused by work, hereby minimizing interference from job strain brought home—our second line of defense against work-family conflict.

**Hypothesis 3.** Daily social support at home (from the spouse) moderates the within-individual effect of emotional exhaustion on work-family conflict such that this relationship is weaker on days when one receives more rather than less social support at home.

Thus far, following the W-HR model (Ten Brummelhuis & Bakker, 2012), we have hypothesized a mediated (indirect) effect of workload on work-family conflict through emotional exhaustion (as an indicator of depleted emotional resources). In addition, after integrating theorizing from the buffering model of social support with that from the W-

HR model, we have proposed that social support at work acts as a first-stage moderator and social support at home acts as a second-stage moderator in the mediated sequence from workload to work-family conflict.<sup>1</sup> If the resource drain process (indicated by increased emotional exhaustion) is indeed explaining the effect of workload on work-family conflict, then the first-stage and second-stage moderators should also influence the strength of the indirect effect from workload to work-family conflict through emotional exhaustion. We therefore propose that the process by which work interferes with family is conditional on both forms of social support. This is not to say that work-family conflict can only be prevented if employees receive social support both at work and at home. Despite their distinct and complementary functions in preventing work-family conflict, we expect that social support at work and at home independently buffer the process by which workload creates work-family conflict. Thus, we hypothesize that employees will experience less work-family conflict after a demanding day at work if they receive more support from either work-based or home-based sources of support on that day, compared to days on which they receive less of such support.

**Hypothesis 4.** Daily social support at work (from coworkers and supervisor) buffers the within-individual indirect effect of workload on work-family conflict through emotional exhaustion.

**Hypothesis 5.** Daily social support at home (from the spouse) buffers the within-individual indirect effect of workload on work-family conflict through emotional exhaustion.

The overall model that we test in this study is provided in Fig. 1. In sum, we are hypothesizing that social support at work reduces the emotional exhaustion that may be associated with higher daily workload (Hypothesis 2) and that social support at home reduces the work-family conflict that may be associated with higher daily emotional exhaustion (Hypothesis 3). To test the integrated work-family process specified in our model, we then propose indirect effects from workload to work-family conflict through emotional exhaustion that are conditional on social support at work (Hypothesis 4) and at home (Hypothesis 5). Below we describe the study testing these hypotheses.

## 4. Method

### 4.1. Sample

This experience-sampling study was part of a larger data collection effort among dual-earner couples in the Netherlands. The authors collaborated with a number of undergraduate students to recruit couples that were living together at the time of the study and with both partners agreeing to complete daily questionnaires. Our sample consisted of 64 working couples (128 individuals). Only opposite-sex couples participated in the study, resulting in an equal percentage of men and women. Analysis of descriptive information about the participants revealed that, on average, couples had been in a relationship for 16.8 years and had been living together for 14.8 years. The mean number of children living at home was one. The average age of the participants was 39.6 years (ranging from 23 to 63), and they had a mean of 33.5 actual working hours a week. Participants held jobs in a variety of sectors, such as healthcare, education, research, and information technology. More than half of the participants had attained a higher education degree (40.2% higher vocational training and 20.2% university education).

<sup>1</sup> To examine the distinct functions of social support at work and at home, we tested a competing model in which social support at home acts as a first-stage moderator and social support at work acts as a second-stage moderator. Please see our note to Table 3 for other supplemental analyses.

### 4.2. Procedure

The current study started with participants responding to a one-time questionnaire that assessed demographic variables, after which the daily survey phase began. Experience-sampling methodology (ESM) is a data collection method that allows for capturing the daily experiences of individuals in various life domains (Dimotakis & Ilies, 2013). We used an interval-contingent ESM design to survey participants two times a day during specific moments in the day. On each workday, participants were asked to complete one survey at work about an hour before the end of their workday and one survey at home about an hour before sleeping. Our daily survey study was presented to participants as covering a period of two weeks, yet they could also decide to end their participation after the first week of study. A national holiday marked the beginning of the second week, and participants did not complete surveys for this weekday. Therefore, we could collect survey data for a maximum of nine days per participant.

All surveys had to be filled out individually and couples were instructed not to discuss the questions or their answers with each other. The vast majority of survey data were collected digitally<sup>2</sup>; participants were sent e-mails with links to the surveys. We were able to check whether participants responded to the questionnaires at the appropriate times, as the surveys contained a time stamp. Because of missing data<sup>3</sup>, our final sample included 112 participants (16 respondents had no or only one useful daily record) who provided 635 daily records, with an average of 5.67 days per person ( $SD = 2.25$  days).

### 4.3. Measures

The measures described below incorporated minor modifications in order to capture the daily nature of the constructs. All measures were rated on a five-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*, unless stated otherwise. Table 1 presents the descriptive statistics and the correlational matrix for all study variables with internal consistency reliabilities (i.e., Cronbach's alphas averaged across days) on the diagonal.

#### 4.3.1. Workload

We measured employees' workload with a nine-item scale previously used by Ilies et al. (2007) to measure daily workload. The scale was included in the afternoon questionnaire that was administered at work. Example items include "Today, I have too much work to do" and "I work under time pressure today." Across days, the average internal consistency was 0.93.

#### 4.3.2. Emotional exhaustion

To measure employees' emotional exhaustion, we selected five high factor-loading items from the emotional exhaustion subscale of the Maslach Burnout Inventory (Maslach & Jackson, 1981), such as "Today, I feel emotionally drained from my work" and "Today, I feel burned out from my work." The emotional exhaustion scale was part of the survey that respondents completed at the end of their workday. The average internal consistency across days was 0.90 for this scale.

#### 4.3.3. Work-family conflict

Work-family conflict was assessed with the five-item Work-Family Conflict Scale developed by Netemeyer, Boles, and McMurrian (1996). As part of the home survey, the respondents indicated the extent to which work interfered with family that day on items such as "Today, the demands of my work interfered with my home and family life" and

<sup>2</sup> Participants could opt for paper and pencil surveys (delivered to them in envelopes), but only three participants in the original sample did.

<sup>3</sup> We analyzed response patterns to explore the possibility of respondent fatigue in our sample. We observed that strain did not accumulate over the course of the study. Moreover, workload and exhaustion scores did not influence completion of surveys. These analyses disconfirm the possibility that respondent fatigue confounded our results by influencing response patterns.

**Table 1**  
Between-individual and within-individual correlations among study variables.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Workload	3.03	0.57	(0.93)	0.50**	0.11*	0.03	-0.04	0.01	-0.14**	0.29**	-0.06	0.09
2. Emotional exhaustion	2.23	0.60	0.38**	(0.90)	0.21**	-0.09*	-0.11*	-0.10*	-0.22**	0.36**	0.09*	0.15**
3. Work-family conflict	2.10	0.64	0.21*	0.35*	(0.92)	-0.04	-0.10*	-0.04	-0.17**	0.14**	-0.15**	0.20**
4. Supervisor support	3.50	0.67	0.11	-0.21*	-0.06	(0.95)	0.40**	0.12*	0.10*	-0.07	-0.03	0.03
5. Coworker support	3.79	0.54	0.09	0.02	-0.04	0.27**	(0.94)	0.08	0.02	-0.06	0.01	0.03
6. Spousal support	4.04	0.57	0.11	-0.18	-0.09	0.17	0.21*	(0.96)	-0.01	-0.002	0.29**	-0.13**
7. Work positive affect	2.73	0.66	0.04	-0.22*	-0.17	0.09	0.05	0.20*	(0.87)	-0.07	0.30**	-0.03
8. Work negative affect	1.34	0.45	0.11	0.44**	0.20*	-0.20*	-0.14	-0.33**	-0.19*	(0.75)	0.01	0.33**
9. Home positive affect	2.39	0.66	-0.07	-0.19	-0.17	0.04	0.11	0.25**	0.77**	-0.18	(0.86)	-0.07
10. Home negative affect	1.29	0.44	0.11	0.37**	0.17	-0.20*	-0.11	-0.38**	-0.13	0.87**	0.07	(0.79)

Note. Means (M) and standard deviations (SD) are between-individual descriptive statistics. The correlations below the diagonal represent between-individual associations, which are calculated based on individuals' aggregated scores (N = 112, pairwise). The correlations above the diagonal represent within-individual associations and are calculated using the group-mean centered scores (Ns = 555–762, pairwise). Internal reliabilities (averaged across days) appear in parentheses on the diagonal.

\* p < .05.  
\*\* p < .01.

“Today, my job produced strain that made it difficult to fulfill family duties.” Across days, the average internal consistency was 0.92.

#### 4.3.4. Social support at work and at home

Our social support measures were developed on the basis of the Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988). This scale focuses on friends, family, and significant other as sources of support. We used phrases such as “really tries to help me,” “is around when I am in need,” “really cares about my feelings,” and “is a real source of comfort to me,” and we adapted the items to refer to coworkers, supervisor, and spouse as sources of support. Social support at work was measured daily at the end of the workday. We used four items each to measure supervisor and coworker support. Social support at home was evaluated each evening through a nine-item measure that asked respondents about their spouse. We ensured that the measurement scales instructed respondents to answer based on how much they felt supported that day (“as to how you feel about it today”). The average internal consistencies across the measurement points were 0.95 for supervisor support, 0.94 for coworker support, and 0.96 for spousal support.

A multilevel confirmatory factor analysis (CFA) of the 17 items measuring social support indicated that a three-factor model fitted the data best (CFI = 0.91, TLI = 0.90, RMSEA = 0.05), while both the one-factor model (CFI = 0.53, TLI = 0.46, RMSEA = 0.12) and a two-factor model (CFI = 0.44, TLI = 0.36, RMSEA = 0.13) did not fit the data well. Chi-square difference tests also showed that the three-factor model was superior in fit to both the one-factor model ( $\Delta\chi^2(6) = 2234.89, p < .001$ ) and the two-factor model ( $\Delta\chi^2(4) = 2719.42, p < .001$ ). All factor loadings were statistically significant in the three-factor model, with standardized loadings ranging from 0.57 to 0.89 at the within-individual level and 0.92 to 1.00 at the between-individual level. These results supported the discriminant validity of our social support measures and suggested that supervisor and coworker support should be considered distinct work-based sources of social support in the analyses.

#### 4.3.5. Controls

We controlled for the effects of momentary positive and negative affect, reported at work and at home, on emotional exhaustion and work-family conflict, respectively, in order to account for momentary response bias caused by transient affect.<sup>4</sup> Participants were given a list

<sup>4</sup> See Schmidt, Le, and Ilies (2003, p. 208) for a discussion of such momentary bias caused by transient affect. Of note, we have also discussed positive affect as a resource associated with social support. Following a suggestion by an anonymous reviewer, we examined whether positive affect at work and at home function as buffers of the workload–emotional exhaustion and emotional exhaustion–work-family conflict relationships, respectively. The data did not support such buffering effects.

of five positive adjectives (e.g., “interested” and “excited”) and five negative adjectives (e.g., “upset” and “irritable”) from the PANAS (Watson, Clark, & Tellegen, 1988) and were then required to indicate the extent to which they felt that way at that moment. They recorded their answers on a scale from 1 = very slightly or not at all to 5 = extremely. Across days, the average internal consistency for the work affect scale was 0.87 for positive affect and 0.75 for negative affect. For home affect, the average internal consistency across evening measurements was 0.86 for positive affect and 0.79 for negative affect.

#### 4.4. Analyses

The use of repeated measurements resulted in a nested data structure, where days (Level 1; n = 635) are nested within individuals (Level 2; n = 112). For each variable, we estimated a two-level null model (i.e., no predictors are specified) that partitions the total variance into between- and within-individual components. Table 2 presents the results of the null models. The percentage of variance due to within-individual variation in construct scores varied between 33.5% (spousal support) and 58.6% (workload). These findings justify within-individual analyses, as they indicated that scores varied considerably from day to day, and we therefore used hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992).

To provide an integrated test of our proposed model (Fig. 1), we utilized the multilevel modeling approach outlined by Bauer, Preacher, and Gil (2006), with work and home support variables as moderators. This methodology estimates simultaneously the extent to which the social support variables buffer the relationships among workload, emotional exhaustion, and work-family conflict (i.e., moderating effects on path a linking workload to emotional exhaustion and path b linking emotional exhaustion to work-family conflict). In light of our results from the multilevel CFA, we examined supervisor support and coworker support (social support at work) as distinct moderators of path a, while spousal support (social support at home) was specified as a moderator of path b. Given that our conceptual model suggests moderated mediation, we then tested conditional indirect effects using the methodology outlined by Preacher, Rucker, and Hayes (2007).

In all HLM analyses, we specified random intercepts and random slopes for the models at level 2 to account for differences in slopes across individuals. We centered each level-1 predictor variable relative to the individuals' means across days on that variable. As such, the scores represent deviations from the respondent's respective mean, and “the subject serves as his or her own control” (DeLongis, Folkman, & Lazarus, 1988, p. 487). This centering approach eliminates all between-individual variance so that the results of the multilevel analyses are estimates of within-individual effects that are not confounded by any



**Table 2**  
Variance components of null models for level-1 variables.

Dependent variable	Within-individual variance ( $\sigma^2$ )	Between-individual variance ( $\tau^2$ )	Percent variability within individuals
Workload	0.36	0.26	58.6
Emotional exhaustion	0.32	0.31	50.7
Work-family conflict	0.40	0.32	55.6
Supervisor support	0.22	0.41	34.2
Coworker support	0.13	0.25	33.8
Spousal support	0.15	0.30	33.5
Work positive affect	0.29	0.38	43.8
Work negative affect	0.15	0.16	48.6
Home positive affect	0.33	0.37	47.7
Home negative affect	0.14	0.16	46.9

Note.  $N = 112$ . Percent variability within individuals was computed as  $\sigma^2/(\sigma^2 + \tau^2) * 100$ . All variances were significantly different from zero ( $p < .001$ ).

level-2 variables (i.e., differences between individuals) (see also Ilies et al., 2007).<sup>5</sup>

## 5. Results

The results of the multilevel procedures of Bauer et al. (2006) can be found in Table 3. Testing the mediation model as a first step, we found that workload was positively associated with emotional exhaustion ( $B = 0.37, p < .001$ ) and emotional exhaustion was a significant predictor of work-family conflict ( $B = 0.19, p = .004$ ). Thus, both paths of the mediation were significantly different from zero. To test our mediation hypothesis directly, we conducted a Sobel (1982) test and employed a package called 'RMediation' (Tofighi & MacKinnon, 2011), which produces estimates of indirect effects as well as confidence intervals around such effects on the basis of the distribution-of-the-product method. The Sobel test indicated a significant indirect effect of workload on work-family conflict through emotional exhaustion ( $z = 2.60, p = 0.01$ ). RMediation estimated this indirect effect at 0.07 with a 95% CI of [0.019, 0.126]. These results provide support for Hypothesis 1.

In the moderated mediation model, we found that the interaction between workload and supervisor support was significant ( $B = -0.19, p = .025$ ), whereas the interaction between workload and coworker support was not significant ( $B = -0.06, p = .552$ ). We further found that spousal support significantly interacted with emotional exhaustion in predicting work-family conflict ( $B = -0.47, p = .009$ ). These results lend support to Hypothesis 2 (with respect to supervisor support) and Hypothesis 3. The first-stage and second-stage interactive effects are shown in Figs. 2 and 3, plotted using the simple slopes procedure described by Preacher, Curran, and Bauer (2006).

Tests of simple slopes indicated that the effect of workload on emotional exhaustion was significant both for lower ( $-1$  SD) and higher ( $+1$  SD) supervisor support conditions (simple slope = 0.45,  $p < .001$  and simple slope = 0.29,  $p < .001$ , respectively). For the effect of emotional exhaustion on work-family conflict, tests of simple slopes showed that only the slope for lower ( $-1$  SD) spousal support was statistically significant (simple slope = 0.43,  $p < .001$ ); at higher ( $+1$  SD) levels of spousal support, the effect of emotional exhaustion on work-family conflict was not significant (simple slope = 0.09,  $p = .308$ ). We also calculated the region of significance of the simple slopes, which defines the specific values of the moderator at which the slope is statistically significant. We found that the simple slope of emotional exhaustion regressed on workload was significant for most of the observed values of supervisor support (i.e., centered scores ranged

from  $-2.47$  to  $1.58$  and any slope is statistically significant for values  $< 0.84$ ). In contrast, the effect of emotional exhaustion on work-family conflict was significant for a relatively smaller range of observed values of spousal support (i.e., centered scores ranged from  $-2.17$  to  $1.47$  and any slope is statistically significant for values  $< 0.24$ ).

Next, we examined whether the indirect effect ( $ab$ ) of workload on work-family conflict depended on the level of daily social support received. Based on the output from our moderated mediation analyses using Bauer and colleagues' approach in HLM, we followed the procedures described in Preacher et al. (2007) to calculate standard errors for hypothesis testing and construction of confidence intervals. Table 4 presents the results of analyzing conditional indirect effects.

With respect to the indirect effect conditional on support at work, we found that on days when employees received more supervisor support, the indirect effect was 0.08 ( $t(111) = 3.05, p = .003$ ), while on days when employees received less supervisor support, the indirect effect was 0.12 ( $t(111) = 3.88, p < .001$ ). The magnitude of the indirect effects did not differ significantly between the two levels of support ( $z = -1.08, p > .05$ ). This pattern of results does not offer support for Hypothesis 4. With regard to the indirect effect conditional on support at home, we found that on days when employees received more spousal support, the indirect effect was 0.03 ( $t(111) = 1.01, p = .317$ ), while on days when employees received less spousal support, the indirect effect was 0.16 ( $t(111) = 4.19, p < .001$ ). In addition to the non-significant indirect effect on days when spousal support was high, the analysis also revealed that the magnitude of the indirect effect was significantly different for low versus high levels of spousal support ( $z = -2.44, p = .015$ ). Thus, results indicated that spousal support significantly buffered the full mediated sequence from workload to work-family conflict, lending support to Hypothesis 5.

Finally, we tested conditional indirect effects for combinations of the two moderators. We found that the positive effect of workload on work-family conflict through emotional exhaustion was buffered significantly on days when employees received more spousal support, irrespective of the level of supervisor support ( $ab = 0.03, p = .334$  and  $ab = 0.04, p = .319$ , for high and low levels of supervisor support, respectively). In contrast, on days when spousal support was low, workload had a significant indirect effect on work-family conflict, even when supervisor support was high ( $ab = 0.12, p = .002$  and  $ab = 0.19, p < .001$ , for high and low levels of supervisor support, respectively).

Putting these results together, it appears that social support at work and at home differ in the strength of their buffering effects. Although social support at work and at home were both important in preventing detrimental effects induced by workload (i.e., we found significant first- and second-stage moderated effects), we observed different magnitudes of the first- and second-stage moderated effects (shown in Figs. 2 and 3), which we explored through simple slopes tests and regions of significance. We also tested HLM models with and without the product term for the first-stage and second-stage moderations and compared the changes in explained variance at level 1 (pseudo  $R^2$  change) due to

<sup>5</sup> Considering the possibility of couple-level effects, we also estimated three-level models in HLM to control for dependency within level-3 units and ensure that estimates of within-individual effects are not confounded by any level-3 variables (i.e., differences between couples). As the results for the two-level and three-level models mirror each other, the results reported in this paper are those from the two-level HLM analyses.

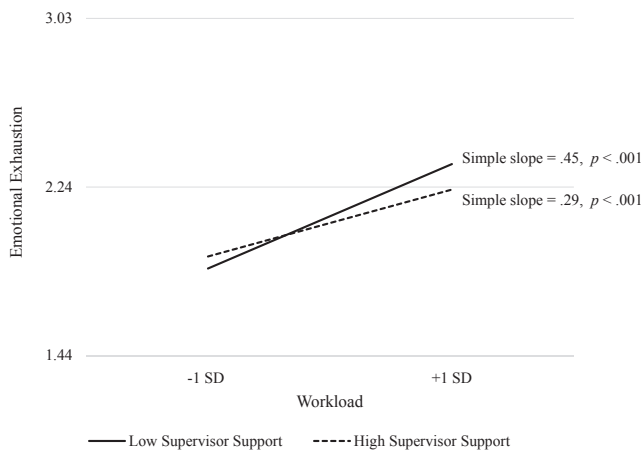
**Table 3**  
HLM results for testing moderated mediation (Y is work-family conflict).

Level-1 predictors	Total effect		Mediation model				Moderated mediation model			
	X – Y		X – M		M – Y		X – M		M – Y	
	$\hat{\beta}$	SE	$\hat{\beta}$	SE	$\hat{\beta}$	SE	$\hat{\beta}$	SE	$\hat{\beta}$	SE
Intercept	2.09**	0.06	2.23**	0.06	2.09**	0.06	2.22**	0.06	2.08**	0.06
Workload (X)	0.11*	0.05	0.37**	0.04	0.12*	0.06	0.37**	0.05	0.07	0.05
Emotional exhaustion (M)					0.19*	0.07			0.26**	0.05
Work PA			-0.17**	0.04			-0.17**	0.05		
Work NA			0.31**	0.06			0.30**	0.06		
Home PA					-0.11*	0.04			-0.11*	0.05
Home NA					0.22**	0.08			0.22**	0.07
Supervisor support (W1)							-0.04	0.06		
Coworker support (W2)							-0.08	0.08		
X × W1							-0.19*	0.08		
X × W2							-0.06	0.10		
Spousal support (V)									-0.01	0.06
M × V									-0.47**	0.18
Residual level-1 variance <sup>a</sup>	0.28**		0.21**				0.18**			

Note.  $\hat{\beta}$  = unstandardized HLM coefficient. SE = standard error. PA = positive affect. NA = negative affect. The X – M and M – Y models were estimated simultaneously. Mediation and moderated mediation tests were conducted with Bauer et al.'s (2006) procedures in HLM 7. We also tested alternative models in which social support variables were aggregated across days into level-2 variables; we did not find significant cross-level interactions. Furthermore, we tested a competing model in which social support at home acted as a first-stage moderator and social support at work acted as a second-stage moderator; these interactions did not provide significant results. We reanalyzed the paths in our mediation model while controlling for prior-day levels and average levels of emotional exhaustion and work-family conflict; the results of these analyses replicated the results reported in this table. Results are also robust to the effects of level-2 control variables (i.e., the sample descriptors mentioned in Section 4) on the level-1 intercepts. Tests of cross-level interactions with gender revealed that the slopes in our model are not different for men and women. Finally, considering the possibility of couple-level effects, we estimated three-level models in HLM to control for dependency within level-3 units (i.e., couples); our results were found to be robust.

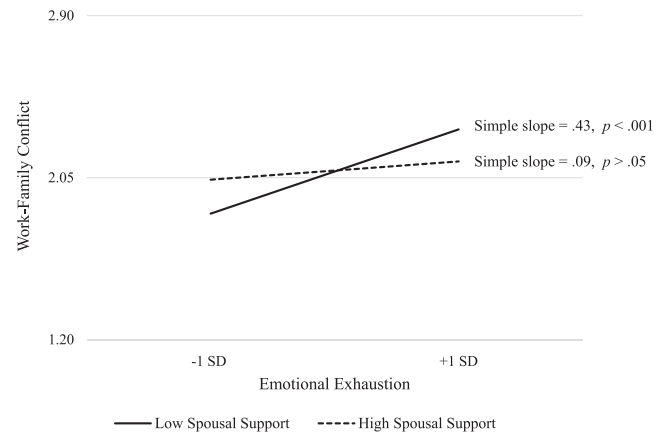
<sup>a</sup> Residual level-1 variance refers to as-yet unexplained within-individual variation in outcome scores (note that the total within-individual variance in each construct score is provided in Table 2).

\*  $p < .05$ .  
\*\*  $p < .01$ .



**Fig. 2.** Interaction of supervisor support with workload in predicting emotional exhaustion. The values on the y-axis refer to the mean and  $\pm 1$  SD scores for emotional exhaustion. Simple slopes are presented for conditional values of the moderator at  $\pm 1$  SD.

adding the two moderations (see Hofmann, Morgeson, & Gerras, 2003, p. 174). It was revealed that the product term of emotional exhaustion and spousal support explained more incremental variance in work-family conflict than the product term of workload and supervisor support did in emotional exhaustion (5% vs. 1%). Thus, although it is difficult to compare the first- and second-stage moderations statistically, this pattern of results does suggest that social support at home is more



**Fig. 3.** Interaction of spousal support with emotional exhaustion in predicting work-family conflict. The values on the y-axis refer to the mean and  $\pm 1$  SD scores for work-family conflict. Simple slopes are presented for conditional values of the moderator at  $\pm 1$  SD.

important as a buffer. Our results regarding conditional indirect effects substantiated this claim; only spousal support was a significant condition for the mediated work-family conflict process.

## 6. Discussion

Integrating the work-home resources model (Ten Brummelhuis &

**Table 4**  
Conditional indirect effects.

Independent variable	Mediator	Dependent variable	First-stage moderator (supervisor support)	Second-stage moderator (spousal support)	Indirect effect	t-value	95% CI
Workload	Emotional exhaustion	Work-family conflict	High		0.08*	3.05	[0.03, 0.12]
			Low		0.12*	3.88	[0.06, 0.18]
				High	0.03	1.01	[−0.03, 0.10]
				Low	0.16*	4.19	[0.08, 0.23]
				High	0.03	0.97	[−0.03, 0.08]
				High	0.12*	3.18	[0.05, 0.20]
				Low	0.04	1.00	[−0.04, 0.12]
				Low	0.19*	4.15	[0.10, 0.29]

Note. Moderated mediation tests were conducted with Bauer et al.’s (2006) procedures in HLM 6. First-stage moderated mediation was tested based on Model 2 in Preacher et al. (2007). Second-stage moderated mediation was tested based on Model 3 in Preacher et al. (2007). The combined moderated mediation was tested based on Model 4 in Preacher et al. (2007).

\*\*p < .01.

\* p < .05.

Bakker, 2012) and the buffering model of social support (Cohen & McKay, 1984; Cohen & Wills, 1985) as theoretical frameworks, the present study tested an integrated model that examined the role of specific sources of social support in the daily process by which workload creates work-family conflict through emotional exhaustion. The findings were largely supportive of the hypothesized model. In a sample of dual-earner couples, we observed that daily workload predicted work-family conflict at home. In line with the resource perspective of the W-HR model, emotional exhaustion—as an indicator of resource drain—explained the relationship between daily workload and work-family conflict. Most importantly, however, we found that support at work and at home acted as buffers in this work-family conflict process, within their respective domains; that is, social support at work (from the supervisor) weakened the effect of workload on emotional exhaustion, and social support at home (from the spouse) weakened the effect of emotional exhaustion on work-family conflict. Yet only spousal support buffered the full work-family conflict process (i.e., as a condition for the indirect effect). These findings have important theoretical and practical implications, as we explain below.

6.1. Strengths and implications for research

Our study contributes to theory on work and family in general and to the W-HR model more specifically. Ten Brummelhuis and Bakker (2012) aimed to open up the black box that links work and family by proposing that personal resources are the linking pins between these domains. A recent review (Ilies, Aw et al., 2015) posited that a day-to-day approach can offer more conclusive support for the propositions put forward in the W-HR model because, on a conceptual level, work-family conflict is an inherently dynamic process that occurs on a day-to-day basis. The current study advances work-family research by using within-individual modeling and further by proposing that emotional exhaustion is a key mechanism explaining how demanding job experiences (i.e., workload) negatively affect individual outcomes in the family domain. While most research focuses on chronic levels of burnout and how it develops from the experience of work-family conflict, adding a day-level perspective allows for examining day-to-day fluctuations in aspects of burnout (Sonnentag, 2005), and such dynamic data can help explain how one’s workday affects one’s family life (i.e., how job experiences are related to emotional resources that are needed to fulfill family roles). Using theorizing on daily spillover processes from the work-home resources model, and adopting experience-sampling methodology, we related workload during the day to emotional

exhaustion reported at the end of the workday and further to work-family conflict in the evening in a sample of dual-earner couples. Offering initial validation, our findings support the proposition of the W-HR model that “changes in energy resources are responsible for daily interference between work and home” (Ten Brummelhuis & Bakker, 2012, p. 555).

Yet this process is dependent on social support; that is, we observed that social support at work and at home buffered in a dual fashion the two-stage process by which work conflicts with family. In modeling social support at work and at home as conditional factors for the work-family process, we have addressed the call by Ten Brummelhuis and Bakker (2012) to examine the interaction between contextual demands and resources on a person’s resource supply as well as the extent to which contextual resources can counterbalance resource drain. However, the W-HR model does not explain in detail why resources such as social support would operate as buffers in the work-family conflict process. We offer a much-needed integration of the propositions of the W-HR model with Cohen and McKay’s (1984) and Cohen and Wills’ (1985) seminal work on the buffering model of social support. Our theorizing, specifying how and why the two forms of social support can prevent strain and work-family conflict (as moderators of the daily work-family process) when employees are faced with high demands at work, forms a valuable extension of the W-HR model.

Another important strength of this study is that it provides an initial examination of how different sources of social support buffer the deleterious effects of high workloads on work-family conflict. In doing so, our study departs from prior research, which has emphasized the domain specificity of effects in the work-family interface. That is, several meta-analyses suggested that social support works best in reducing work-family conflict when it is specifically matched to the demands that create such conflict (Byron, 2005; Ford et al., 2007). This has left scholars with the assumption that it is work-based support—not support at home—that can reduce work-family conflict, yet this is not in line with the notion that work-family conflict involves a process with daily events and experiences in both the work and family domains (see Ten Brummelhuis & Bakker, 2012). Given that our findings support a sequence where high workloads and subsequent strain from work are transferred to the family domain and undermine an individual’s functioning at home, it is important to identify those forms of social support that have the potential to first reduce strain and then prevent work-family conflict for employees who experience high workloads. Our theorizing on the dual-buffering effects of social support at work and at home, specifying how also home-based support can alleviate work-

family conflict (i.e., by assisting in the recovery from emotional exhaustion and managing such strain), is a key strength of our paper and advances work-family research. Our results suggest that social support at work and at home indeed have distinct functions as buffers in the work-family conflict process (i.e., preventing strain versus managing strain, respectively). It is noteworthy, however, that social support at work and at home may differ in their strength of buffering effects; that is, support at work could attenuate but not completely eliminate the effect of workload on emotional exhaustion (and was not a condition for the mediated work-family conflict process), while support at home could largely buffer the effect of emotional exhaustion on work-family conflict (and also buffered the indirect effect of workload on work-family conflict).

Having distinguished between social support at work and at home, we further distinguished between coworkers and supervisor as sources of social support in the work domain. Our study is one of the few to examine these work-based sources of support simultaneously. In our sample, the supervisor was the most important work-related source of support. This is consistent with meta-analytic findings from Ng and Sorensen (2008), who argued on the basis of the symbolic interaction and resource perspectives that support from supervisors is more useful and valuable than from coworkers, and supervisor support is less susceptible to negative interpretations and threatens to a lesser extent one's self-esteem than coworker support. Yet research has been far from conclusive on this matter, and we agree with Kossek, Pichler et al. (2011) that there is a need for theories that enhance our understanding of why different sources of support are more or less relevant and whether they can substitute for each other as buffers of stressful events.

Finally, this study has a number of strengths related to the research design. It is a design strength that we used a sample of dual-earner couples because the number of dual-earner couples is growing and society is particularly concerned with how dual-earner couples can juggle their work and personal lives (Masterson & Hoobler, 2015). The use of repeated measurements with two surveys per day in both the work and home domains is another important methodological strength, for several reasons. First, this assessment methodology allowed us to assess the dynamic, volatile nature of our variables and examine within-individual relationships, as alluded to earlier. Second, it allowed us to examine the temporal (daily) process through which work interferes with family, with experiences both at work and at home, thus focusing on the two different stages of the work-family conflict process. Third, our design enabled us to assess the timely availability of social support within each domain and during each stage of the process, which is a unique feature of this study and an important step forward in testing the buffering model of social support.<sup>6</sup> By considering the timing of social support (and hence its volatile nature), our study offers a more full-fledged and rigorous test of the buffering hypothesis as compared to previous research.

These methodological strengths are closely related to the theoretical contributions we make, and our findings imply it will be important for theory development to consider the substantive role of time. We have provided a within-individual test of the buffering model of social support in the workload–emotional exhaustion–work-family conflict relationship. We also tested the buffering model using between-individual differences in social support, yet it did not yield significant results (see note to Table 3). The latter finding is consistent with our theorizing that conceptualizing social support as a stable, time-invariant construct can mask its buffering effects on exhaustion and work-family conflict. As research has begun to acknowledge the volatile nature of helping behaviors (e.g., Halbesleben & Wheeler, 2015), it is critical that scholars

build on this conceptualization to refine tests of the buffering hypothesis. We hope our theorizing and empirical results will spur future investigations that continue the testing of the buffering model of social support in the work-family conflict process through the use of ecological momentary assessment designs.

## 6.2. Practical implications

Our findings suggest that experiences of high workload during the day and work-family conflict at the end of the day are linked through a process of energy depletion. Finding ways to address emotional exhaustion from work, either by preventing employees from leaving the workplace emotionally drained or by helping them recover from it later in the day and replenish their resources, is a necessary step in enhancing employee well-being. Our study draws attention to the importance of social support interventions; specifically, supervisor support and spousal support are complementary as buffers such that employees benefit from a dual social support system. Finding support for such dual-buffering effects has simple yet important implications. By enacting a dual social support system employees can enjoy the fulfillment associated with a full day at work as well as the long term (material) benefits of hard work, without getting exhausted, and while enjoying family life after work. We have theorized that discerning effects with respect to both the source and timing of social support should suggest more effective interventions that can ultimately reduce work-family conflict. Both workplace and home-based support can be targets of intervention, and our study informs the implementation of interventions for promoting the effective management of work and family roles.

Many organizations design workplace interventions to reduce work-family conflict (Kossek, Baltes, & Matthews, 2011), and supervisors are often considered critical ingredients to the effective implementation of work-family initiatives (Kossek, Pichler et al., 2011). Prior research posited that supervisor *work-family* support (i.e., social support that specifically assists in managing work-family issues) plays a central role in alleviating work-family conflict experiences among employees (Goh, Ilies, & Wilson, 2015) and can be improved by offering training to supervisors aimed at increasing their use of family-supportive supervisor behaviors (Hammer, Kossek, Kent, & Bodner, 2011). While it is critical that supervisors (and other workplace sources of support) offer content-relevant resources to manage work-family conflicts, the implication of our findings is that supervisors should also focus on support that facilitates personal effectiveness and productivity at work, which would enable employees to effectively deal with high workloads and thus experience less strain and work-family conflict when they face such high workloads.

Supervisors need to become aware that maintaining employees' well-being is a daily undertaking. Supervisor behaviors that help employees manage their workload on a daily basis are, among others, offering constructive suggestions, proposing creative solutions to problems encountered in daily work, listening and showing concern, day-to-day assistance in time management, and offering flexibility in work scheduling. On a more general level, it is key that supervisors offer resources that enable employees to appraise workload as a challenge that they are able and willing to tackle (see Hargrove, Becker, & Hargrove, 2015 for more specific interventions on this point). Our results suggest that supervisors can reduce the psychological strain caused by heavy workloads by offering social support, but they should tailor their support provision to the individual's needs, taking into consideration that perceptions of workload vary considerably from day to day. By training their supervisory personnel to provide timely support to employees and be easy for them to reach, organizations can reap the productivity benefits of higher workloads without damaging

<sup>6</sup> While having a different focus than our paper, the study by Almeida et al. (2016) also shows the promising potential of diary methods for testing the buffering model of social support. These authors found that reactivity to work-family conflict was buffered by daily supervisor support.



employees' family lives and incurring the associated costs.

However, caution is warranted when translating our results on supervisor support into practical implications for managers and organizations. The current research suggests that the effects of interventions targeted at improving everyday supervisor support might be modest (see simple slopes in Fig. 2). The practical relevance of our results on social support at home is larger, as support at home attenuated the effect of emotional exhaustion on work-family conflict substantially (i.e., there was no significant relationship between emotional exhaustion and work-family conflict for high levels of such support; see Fig. 3). Spousal support plays a pivotal role in helping employees balance the dual roles of work and family. Given the detrimental outcomes of work-family conflict, also in the work domain (Peeters et al., 2013), not only employees and their families but also organizations would benefit considerably from an effective social support system at home. More studies are needed to gain a comprehensive understanding of what constitutes an effective social support system, yet our results clearly indicate that it is critical *when* spousal support is provided. Although some individuals have generally supportive or unsupportive spouses (e.g., an understanding spouse staying at home versus a spouse working very long hours at the office), it follows from our study that perceptions of spousal support are not consistent across days. This may be particularly true for dual-earner couples, where the work demands of the working spouse may at times leave limited time and energy for supportive behaviors (Story & Repetti, 2006). When both partners are juggling the demands of work and family on a daily basis, it makes social support very much necessary but perhaps also more difficult in such couples. Our results imply that employees are in need of support after a demanding day at work, and timely provision of social support will be critical in preventing work-family conflict in an emotionally exhausted spouse. An implication for couples is that partners must improve their understanding of each other's work demands and be open in communicating their problems to each other, as this is likely to influence the willingness of providing support.

### 6.3. Limitations and future research

Several limitations of the present study should be noted. First, there may be limits to the generalizability of our findings because our sample consisted exclusively of dual-earner couples. Our theorizing and hypotheses were not specific to dual-earner couples yet the results of this study pertain to members of cohabiting dual-earner couples and do not necessarily generalize to single-earner couples or non-cohabiting couples, as relationship and family dynamics might be inherently different. We encourage future research to examine the relationships that we tested here within single-earner couples. Moreover, our sample consisted of participants recruited from personal networks. This sampling strategy potentially limits the representativeness of our sample and the generalizability of our findings. Nevertheless, the sample was gender-balanced and shows considerable diversity in terms of other characteristics, such as the type of jobs that participants held. The latter may have resulted in differences in general levels of workload and other experiences, but importantly our within-individual analyses account for the influence of average levels of predictor variables such that the results reported in this paper should not be affected by sample characteristics. Another potential threat to the generalizability of our findings is the occurrence of an atypical event, namely a national holiday, after the first week of data collection. We cannot rule out the possibility that the prolonged weekend in the middle of our study period affected our variables or the relationships in our model.<sup>7</sup> On a general level, we recommend that researchers using ESM designs explore what employees do on days they do not work (e.g., weekends or days off for

<sup>7</sup> We performed paired samples *t*-tests to compare the means of the first and second week, the means of the Tuesdays (as the national holiday was on a Monday) and the means of the Fridays (as it preceded the weekend) within persons. None of the paired comparisons were significant at the 0.05 level. All day averages are reported in Appendix A.

part-time workers), to assess any impact it might have on the generalizability of findings.

Our data stemmed from a single source and common method bias is therefore a possible limitation of our study. Even though the temporal and psychological (work vs. home) separation of our evaluations should alleviate this concern, and common method bias is not an issue when testing interactive effects (Evans, 1985), we recommend that researchers collect spousal ratings of some of the variables in our model to validate perceptual self-reports. Another limitation has to do with the fact that our design did not involve temporal separation of workload and emotional exhaustion measures. When these constructs are measured at the same time, it is difficult to rule out the possibility that emotional exhaustion influenced workload perceptions (e.g., on days when employees feel emotionally exhausted, they perceive higher workloads). A similar concern applies to the association between emotional exhaustion and work-family conflict. Although we measured these constructs in a time-separated manner and in different domains, caution is still required when interpreting this relationship.<sup>8</sup>

A final limitation is that we lack data on some other potentially interesting constructs that could shed more light on the processes proposed in our model. We focused on the direct (and subjective) measurement of work-family conflict and did not assess actual family outcomes. Therefore, our findings do not provide a detailed picture of the specific consequences of emotional exhaustion for family role performance. In addition, we only measured emotional aspects of job strain in the form of emotional exhaustion. It is recommended to collect data on multiple types of energy depletion in a single study (see for instance Ilies, Huth et al., 2015). We also did not explore specifically what supervisors or spouses did to support employees during the day. Disentangling the various types of social support (House, 1981) would be highly insightful, but future research could also explore specific supportive behaviors from supervisors that have the potential to prevent exhaustion in employees on a demanding workday. Regarding spousal support, we suggest that future research evaluates constructs reflecting (a) energy availability at home and (b) family demands, in order to examine the extent to which a supportive spouse helps the employee replenish personal resources or reduces his or her family demands. It would also be interesting to supplement our focus on positive interactions (i.e., social support) with a focus on negative interactions, such as spousal conflicts, and examine whether these exacerbate (rather than buffer) the relationships proposed in our mediation model.

## 7. Conclusion

A rich set of empirical research has accumulated over the years on the effects of work factors on family life as well as on the role of social support in diminishing work strain or work-family conflict. Although this stream of research has been valuable in helping us understand what brings about work-family conflict, it falls short of explaining the daily process through which work-related factors carry over to the family domain or how different sources of social support impact the work-family conflict process. In an attempt to advance our understanding of social support as a resource in everyday high-load situations, the present study examined fluctuating levels of social support at work and at home as moderators of the stressor-strain-work-family conflict mediated model. The data supported the hypothesized buffering effects and, as such, suggest that enacting a dual social support system can effectively prevent workload from creating exhaustion and work-family conflict.

<sup>8</sup> We tested cross-lagged effects yet did not find support for an effect of work-family conflict on next-day scores on emotional exhaustion or for emotional exhaustion influencing next-day scores on workload. In addition, we tested autoregressive models for both emotional exhaustion and work-family conflict, but prior-day scores were not significant predictors of present-day scores for these variables at the within-individual level, suggesting there is no need to control for serial dependence in emotional exhaustion or work-family conflict.

## Appendix A. Day averages for the main study variables

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Workload	3.10	2.88	2.88	3.10	3.04		2.87	3.11	3.34	3.14
Emotional exhaustion	2.24	2.16	2.08	2.32	2.21		2.17	2.40	2.36	2.27
Supervisor support	3.59	3.49	3.55	3.49	3.49		3.46	3.44	3.49	3.51
Coworker support	3.82	3.77	3.77	3.77	3.75		3.81	3.74	3.78	3.66
Spousal support	4.07	4.09	4.05	4.02	4.03		3.89	3.92	3.97	3.93
Work-family conflict	1.93	2.15	2.01	2.08	2.01		2.01	1.97	2.09	2.07

Note. The dotted line indicates the weekend, which was followed by a national holiday on the second Monday (Day 6). No daily surveys were completed for this weekday.

## Appendix B. Supplementary material

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.obhdp.2018.02.001>.

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