

# Supportive supervisors improve employees' daily lives: The role supervisors play in the impact of daily workload on life satisfaction via work–family conflict

Zen Goh <sup>a,\*</sup>, Remus Ilies <sup>a</sup>, Kelly Schwind Wilson <sup>b</sup>

<sup>a</sup> National University of Singapore, Faculty of Business, Department of Management and Organisation, 15 Kent Ridge Drive, Mochtar Riady Building, BIZ1/8-37, Singapore 119245, Singapore

<sup>b</sup> Krannert School of Management, Purdue University, West Lafayette, IN 47907, USA

## ARTICLE INFO

### Article history:

Received 24 January 2015

Available online 15 April 2015

### Keywords:

Workload

Work–family conflict

Life satisfaction

Supervisor work–family specific support

Experience sampling methodology

## ABSTRACT

This article presents a multilevel approach that uncovers how day-to-day variations in workload influence life satisfaction by creating work–family conflict, as well as the role supportive supervisors play in influencing these daily relationships. In this experience-sampling study, 135 employees responded to 2 daily surveys (one at work and one at home) for 5 days and a one-time post-study survey. With a total of 810 surveys, hierarchical linear modeling revealed that employees' daily perceived workload positively predicted daily work–family conflict, which in turn negatively predicted daily life satisfaction. Importantly, we found support for a cross-level interaction where supervisor work–family specific support (measured once in the post-study survey) negatively moderated the relationship between daily workload and work–family conflict, attesting the importance of supervisory support in reducing daily interference between work and family.

© 2015 Elsevier Inc. All rights reserved.

With multitudes of dual-earner couples in the workforce, family demands are now placed on both partners. Combined with experiencing high work hours given a 24-7 operating system in most organizations (Barnett & Hyde, 2001; Dex, 2003; Kossek & Distelberg, 2009), employees are facing escalating demands from both domains. Consequently, work–family issues have garnered attention as it is increasingly recognized that the interaction between work and family has a significant impact on employee well-being (e.g., Eby, Maher, & Butts, 2010). Previous research suggests that employee well-being impacts not only one's quality of life, but also important organizational outcomes such as job performance, absenteeism, turnover intentions, punctuality and helpful behavior towards co-workers (e.g., Judge, Thoresen, Bono, & Patton, 2001; Spector, 1997; Wright & Cropanzano, 2000).

Such trends have prompted an emerging line of research that looks at how work influences well-being from the perspective of employees' private lives, in particular work–family issues. Therefore, a plethora of research, both theoretical and empirical, examines the negative impact of job stressors such as workload on work–family conflict via physical (e.g., time) or psychological (e.g., distress and negative affect) constraints (Edwards & Rothbard, 2000; Frone, Yardley, & Markel, 1997; Ilies et al., 2007). Work–family conflict, which occurs “when role pressures from work and family are mutually incompatible such that participation in one role is made more difficult by virtue of participation in the other role” (Greenhaus & Allen, 2011, pp. 165–166; Greenhaus & Beutell, 1985), has negative consequences for a wide variety of work-related, nonwork-related and stress-related outcomes (c.f. Allen, Herst, Bruck, & Sutton, 2000).

Many suggest that the existence of formal family supportive policies alone is not enough to ease employees' work and family demands considering that these policies rely on the informal discretion of employees' managers (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). In general, informal supervisor or managerial support has been identified as a crucial component in decreasing

\* Corresponding author.

E-mail addresses: [a0082775@u.nus.edu](mailto:a0082775@u.nus.edu) (Z. Goh), [ilies@nus.edu.sg](mailto:ilies@nus.edu.sg) (R. Ilies), [kellysw@purdue.edu](mailto:kellysw@purdue.edu) (K.S. Wilson).

work–family conflict (e.g., Allen, 2001; Behson, 2002). Thus, organizations must consider how supervisors play a role in influencing employee workload, work–family conflict and well-being.

While encouraging and informative, both streams of research have primarily focused on between-individual variation and relationships. For example, workload has been positioned as a job stressor, and therefore, studied primarily as a between-individual difference using cross-sectional designs (e.g., Geurts, Kompier, Roxburgh, & Houtman, 2003). While there are some longitudinal designs (e.g., Demerouti, Bakker, & Schaufeli, 2005) aimed at addressing the issue of causality, both types of designs do not investigate real-time, dynamic processes regarding individuals' experiences. Such neglect of within-individual variability overlooks substantial variance in workers' daily job demands, conflict and well-being (e.g., Ilies & Judge, 2002; Williams, Suls, Alliger, Learner, & Wan, 1991). Likewise, though it has been accepted that supervisory support has a positive impact on employees' work–family conflict, much less is known about how an individual's daily work–family conflict and well-being are influenced by such support. For instance, a recent meta-analysis on workplace social support concludes that “none of the studies in our database considered how perceptions of workplace support cascade across levels of analysis” (Kossek, Pichler, Bodner, & Hammer, 2011, p. 304). When summarizing these scholars' recommendations for future research, they suggest overall that studies involving work–family conflict should examine cross-level support relationships specific to *work–family support* (Kossek et al., 2011).

Using Conservation of Resources (COR) theory (Grandey & Cropanzano, 1999; Hobfoll, 1989) and theory on social support, this paper addresses the within-individual relationships of workload and employee well-being as mediated by work–family conflict, as well as the cross-level moderating role of supervisor work–family support. In particular, because empirical evidence demonstrates a stronger influence from supervisor work–family support (compared to general supervisor support) in alleviating work–family conflict experiences (Behson, 2005; Kossek et al., 2011), we look specifically at the role of supervisor work–family support in influencing workers' daily experiences. In other words, we examine how individuals' perceptions of supervisor work–family support moderate within-individual, day-to-day processes linking job demands to work–family conflict and life satisfaction.

Overall, the present research contributes to the literature in the following ways. First, while there is evidence indicating that high job demands tend to decrease the quality of employees' family lives and relationships (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005) as well as affective and health-related indicators of well-being (Geurts et al., 2003), less is known about how these processes unfold and the effects on employees' general well-being or *life satisfaction*. Despite the heavy empirical evidence concerning negative outcomes of workload, few studies have looked broadly at *how* workload impacts general well-being. Therefore, in this study, we are interested in life satisfaction as a holistic, general indicator of well-being, rather than more narrowly defined markers. Furthermore, we examine within-individual effects by testing the indirect relationship between daily workload and daily life satisfaction through cross-domain effects (i.e., daily work–family conflict).

Finally, while there is some evidence indicating the benefits of informal organizational and supervisor support (Allen, 2001; Behson, 2005; Kossek et al., 2011; Thompson, Beauvais, & Lyness, 1999), this area of research emerged fairly recently and empirical evidence is still sparse (Behson, 2005). Importantly, no study has examined whether *cross-level* supervisor work–family support buffers the *day-to-day* effects of high workload on work–family conflict (c.f. Kossek et al., 2011). Therefore, we extend this small but important field of informal organizational support research by testing the cross-level interaction effect supervisor work–family support has on the relationship between daily workload and work–family conflict. Overall, the present research will inform scholars and human resource professionals of the daily well-being implications for employees of workload and work–family conflict, as well as the type of work–family support (i.e., informal) organizations should encourage from supervisor-level employees in order to reduce the negative consequences of daily workload on conflict or performance in employees' family domain.

## 1. Theory and hypotheses

We use the COR model (Grandey & Cropanzano, 1999; Hobfoll, 1989) and social support literature to guide our theorizing. According to the COR model, individuals aim to acquire and maintain resources such as objects (e.g., food), personal characteristics (e.g., self-esteem), conditions (e.g., promotion) and energies (e.g., time). When these resources are threatened or lost, individuals experience stress (Hobfoll, 1989).

Following this framework, we argue that workload is a job demand or stressor that represents a consumption of energy in terms of time and psychological resources. An increase in such demands translates into additional resources being required or consumed by the work sphere. Since resources are finite, this leaves fewer resources available to fulfill demands in the family (e.g., Edwards & Rothbard, 2000; Ilies et al., 2007). For example, the more time one spends at work, the less time one has to fulfill home demands (e.g., Thompson et al., 1999), and conflict is created between the two domains as a result of insufficient resources being available to fulfill demands in both roles.

Resource drain can occur on a daily basis resulting from high workload, which negatively affects individuals' family role performance, resulting in daily work–family conflict (Edwards & Rothbard, 2000). This may occur through a lack of time needed to accomplish one's duties in the family or through a lack of energy needed to engage in the family domain (Edwards & Rothbard, 2000). Therefore, we hypothesize the following:

**Hypothesis 1.** There will be a positive within-individual relationship between daily workload and daily work–family conflict.

The COR model also posits that resources can buffer against stress. We propose that supervisor work–family support, defined as perceptions that one's manager or supervisor cares about individuals' work–family well-being (Kossek et al., 2011), represents one such buffer. Social support is often framed as a resource (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) and presently, we

propose that family-supportive supervisors represent a type of resource that can help employees cope with the effects of high workload, especially considering that supervisors are directly responsible for employee workloads (Hammer et al., 2009). This type of support offers employees the ability to jointly manage work and family demands (Kossek et al., 2011) and can be demonstrated through emotionally supportive actions (Thomas & Ganster, 1995) such as discussing family-related issues or instrumental behavior (Hammer et al., 2009) such as approving family-related requests.

Empirical evidence indicates that supervisor work–family support is negatively related to work–family conflict (e.g., Kossek et al., 2011; Lapierre & Allen, 2006). Allen (2001) and Thompson et al. (1999) have shown that having a supportive supervisor encourages employees to utilize family-friendly benefits without fear of being penalized. This creates a family-friendly environment in which employees do not assume that attending to home demands signifies a resource loss at work, which, in turn, should reduce experiences of work–family conflict (Kossek, Colquitt, & Noe, 2001; Lobel & Kossek, 1996). In support of this argument, Behson (2005) showed more concretely that informal support (i.e., supervisor support) is a more important predictor than formal support (i.e., organizational initiatives) of work–family conflict, job satisfaction, stress, and turnover intentions.

When a supportive supervisor demonstrates understanding and empathy towards employees' family-related obligations, it boosts an individual's psychological resources to deal with related stress, thus reducing distress and conflict with work demands (cf., Bakker & Demerouti, 2007). Kossek et al. (2011) state that "supervisory work–family support is likely to be a more psychologically and functionally useful resource to manage work–family stressors, such as time, strain, or behavior-based conflicts ... than general workplace social support" (p. 294). These scholars also describe such support as a buffer against stress from job demands. Hence, supervisor work–family support, which does not directly reduce one's job demands, helps employees reduce the impact of job demands on home life in various ways.

Given that supervisor work–family support provides employees' with additional resources to deal the negative effects of high workloads, we propose that supervisor work–family support performs a buffering or moderating role on one's day-to-day work-to-family interference. Employees who enjoy greater support from their supervisors in dealing with family issues should be less likely to experience work interfering in their daily home life even when job demands (workload) are high, given the emotional and/or instrumental help provided to deal with such interference. Therefore, we hypothesize that:

**Hypothesis 2.** The within-individual relationship between daily workload and daily work–family conflict is moderated by supervisor work–family support, such that this relationship is weaker for employees who have higher, compared to those who have lower, supervisor work–family support.

When one faces work–family conflict, it indicates that the demands of participation in the work and family domains interfere with one another (Greenhaus & Beutell, 1985). Thus, it is difficult for individuals to meet demands in both life spheres, causing a depletion of resources (Edwards & Rothbard, 2000; Grandey & Cropanzano, 1999). Furthermore, such "losses of resources lead to a negative 'state of being,' which may include dissatisfaction, depression, anxiety, or physiological tension" (Grandey & Cropanzano, 1999, p. 352).

Work–family conflict has been shown empirically to have a negative effect on a wide variety of outcomes, from physical to emotional to social. For example, work–family conflict is related to poorer emotional and physical well-being (e.g., Geurts et al., 2003), such as higher ratings of psychological burnout (Bacharach, Bamberger, & Conley, 1991) and depression (Thomas & Ganster, 1995). Work–family conflict also leads to resource drain, which can lead to poorer marital interaction or marital dissatisfaction (e.g., Thomas & Ganster, 1995). Multiple reviews show that work–family conflict is associated with a wide variety of negative outcomes (Eby et al., 2005; Kossek & Ozeki, 1998) including life satisfaction, a global measure of well-being. Therefore, taken together, we hypothesize that:

**Hypothesis 3.** There will be a negative within-individual relationship between daily work–family conflict and daily life satisfaction.

Following the COR model, we propose that daily workload would increase employees' daily work–family conflict because resources are lost at work (when utilized to fulfill daily work demands), which leaves fewer resources available to fulfill family responsibilities (Grandey & Cropanzano, 1999). Grandey and Cropanzano (1999) also claim that resources are lost during interrole conflict (including work–family conflict), and as noted, that resource loss leads to negative states or dissatisfaction. This suggests an indirect process occurs as follows. First, the depletion of resources at work due to workload leads to work–family conflict, which then results in negative well-being outcomes including reduced life satisfaction. Furthermore, the COR model discusses the implications of events and how resource loss and investment change over time (Hobfoll, 1989). Thus, we propose a within-individual mediating relationship exists such that daily work–family conflict mediates the relationship between daily workload and life satisfaction.

Finally, the COR model also argues that individuals strive to protect and build resources (Hobfoll, 1989), which suggests that after a loss of resources, individuals will not likely invest additional resources until a resource gain takes place. As noted previously, supervisor work–family support is a type of resource. When employees obtain such support from their manager, they have new resources available to help them juggle their work and family demands. Additionally, research has demonstrated a positive association between social support and individuals' health and well-being (Adams, King, & King, 1996; Cohen & Wills, 1985). Thus, building upon Hypothesis 2, we expect supervisor work–family support to moderate the mediating relationship proposed between daily workload, work–family conflict and life satisfaction. Hence, we propose:

**Hypothesis 4.** (a) The within-individual relationship between daily workload and daily life satisfaction is mediated by daily work–family conflict; (b) daily workload will be related to daily life satisfaction via conditional indirect effects such that the relationship will be moderated by supervisor work–family support and mediated by daily work–family conflict.

## 2. Method

### 2.1. Sample and procedure

Our sample consisted of 135 full-time, married employees of a state university in Singapore (95 females and 40 males). Participation was solicited via an email invitation sent to a random sample of employees selected from the university-wide mailing list. 182 potential participants registered their interest; 135 participants completed the study (74% response rate). Given the emphasis on both work and family in the present research, participants were required to be married and working full-time to qualify for the study.

Participants completed two surveys each day, one at work and one at home, for five days. The first survey was administered via an Internet interface at work. To accommodate varying work schedules, participants were allowed to complete the work survey at the end of the work day before leaving the office, anytime between 4 p.m. to 7 p.m. each day. The home survey was administered via paper questionnaires at home before participants went to bed; home surveys were returned to the researchers via campus mail the next morning. An additional one-time web survey was conducted at the end of the study. In total, participants provided 810 surveys (675 work and home daily surveys and 135 one-time, post-study surveys) over the five-day duration of the study. Participants were paid up to S\$50.

### 2.2. Measures

#### 2.2.1. Daily workload

At the end of the workday, at work, a nine-item measure was utilized to assess employees' daily workload. Eight items were job demand items (Janssen, 2001) modified to reflect perceptions of daily workload (e.g. "Today, I had too much work to do"; "Today, I had to deal with a work backlog"; "Today, I had problems with the high pace of work") and the last item was a direct assessment of workload (i.e. "Today, I had a high workload"; Ilies et al., 2007). Responses were scored on a 5-point scale, 1 = strongly disagree to 5 = strongly agree. Internal consistency reliability across days was .89.

#### 2.2.2. Daily work–family conflict

At the end of the day, at home, participants reported their daily work–family conflict using an adapted six-item measure (Kopelman, Greenhaus, & Connolly, 1983) rated on a 5-point scale, 1 = strongly disagree to 5 = strongly agree to measure daily work–family conflict. Items include "My work took up time that I would like to spend with family or friends today", "The demands of my job made it difficult for me to be relaxed at home today", and "After work, I came home too tired to do some of the things I would have liked to do". Internal consistency reliability across days was .91.

#### 2.2.3. Daily life satisfaction

Participants reported daily life satisfaction at the end of the day at home using a five-item measure (Diener, Emmons, Larsen, & Griffin, 1985) rated on a 5-point scale, 1 = strongly disagree to 5 = strongly agree. Items were adapted to reflect daily assessments, for example, "Today, I feel that in most ways my life is close to ideal" and "I am satisfied with my life today". Internal consistency reliability across days was .91.

#### 2.2.4. Supervisor work–family support

Participants' general perceptions of their supervisor's support on work–family issues were measured once at the end of the study. A four-item measure adapted from Behson (2005) was used. Items include "My supervisor is understanding when I talk about personal or family issues that affect my work" and "My supervisor accommodates me when I have family or personal business to take care of—for example, medical appointments, and meeting with child's teacher", and were rated on a 5-point scale, 1 = strongly disagree to 5 = strongly agree. Items unrelated to the focal employees' work–family issues were not included (e.g., "My supervisor has expectations of my performance on the job that are realistic"). Internal consistency reliability was .89.

#### 2.2.5. Controls

Gender, age and number of children are used as level-two control variables. Gender was used as a control as it was posited that men and women may differentially participate in family-friendly benefits such as flexible work schedules that impact work–family conflict experiences (Byron, 2005; Voydanoff, 2002). Number of children was also found to moderate the impact of job demands to work–family conflict (Byron, 2005). We control for age as a proxy for work and job tenure.

## 3. Results

Means, standard deviations, reliabilities, within- and between-individual correlations of the focal variables are presented in Table 1. Bivariate within-individual correlations provide preliminary support for the hypotheses. Daily workload was positively related to daily work–family conflict ( $r = .21, p < .01$ ), but not significantly correlated to daily life satisfaction ( $r = -.04, p > .05$ ). Daily work–family conflict was negatively correlated to daily life satisfaction ( $r = -.23, p < .01$ ).

As the data are nested in nature, including a two-level, first-stage moderated-mediation model, we tested the hypotheses in two interlinked steps using Mplus 7 software (Muthén & Muthén, 1998–2012). First, we estimated a multilevel model specifying the Level 1 random slope of daily workload on daily work–family conflict, and the Level 1 random slope of daily work–family conflict on daily

**Table 1**

Means, standard deviations, reliabilities and correlations among study variables.

Variable	M	Within-unit SD	Between-unit SD	1	2	3	4	5	6	7
Level 1										
1. Workload	2.90	.48	.53	(.89)	.40**	-.14*	.00	-.07	-.01	0.10*
2. Work-family conflict	2.48	.55	.64	.21**	(.91)	-.27**	-.28**	-.01	.05	.12
3. Life satisfaction	3.37	.41	.67	-.04	-.23**	(.91)	.28**	.05	-.00	.07*
Level 2										
4. Managerial work-family support	3.57	–	.75				(.89)	-.11	-.04	.01
5. Gender	0.29	–	.44					–	-.03	-.18**
6. Age	37.1	–	8.8						–	.50**
7. Number of children	1.46	–	1.24							–

Note. Gender (0 = female, 1 = male). Cronbach's alpha coefficients are in parentheses along the diagonal. Correlations above the diagonal are between-individual correlations (N = 130–135). Correlations below the diagonal are within-individual correlations (N = 544).

+  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .

life satisfaction. Next, we tested the cross-level moderation effect of supervisor work-family support, by adding the Level 2 predictor on the Level 1 random slope of daily workload predicting daily work-family conflict. Gender, age and number of children were added as Level 2 controls. Workload was group-mean centered to obtain solely within-individual estimates (Enders & Tofghi, 2007; Hofmann & Gavin, 1998), while Level 2 variables were grand-mean centered.

### 3.1. Tests of main effects and mediation effects

Intraclass correlations (ICC) of daily work-family conflict and life satisfaction were 0.57 and 0.73 respectively, indicating that a substantial proportion of the total variance in the outcome variables can be attributed to day-to-day variation. Table 2 presents unstandardized coefficient estimates. Control variables' effects were non-significant. The direct effect of daily workload on daily life satisfaction was also non-significant.

Daily workload was positively related to daily work-family conflict ( $\gamma = .30, p < .01$ ), indicating that an employee experiences higher work-family conflict on a day with higher workload. Daily work-family conflict was negatively related to daily life satisfaction ( $\gamma = -.17, p < .01$ ), indicating that one experiences lower life satisfaction on a day with higher work-family conflict. Thus, Hypotheses 1 and 3 were supported, respectively. A Sobel test indicated a significant indirect effect of workload on life satisfaction via work-family conflict (Sobel  $z = -2.66, p < .01$ ), supporting Hypothesis 4a.

### 3.2. Testing cross-level moderation and moderated-mediation effects

Supervisor work-family support was negatively related to the random slope between daily workload and daily work-family conflict ( $\gamma = -.16, p < .05$ ), indicating a significant cross-level moderation effect. This indicates that the daily relationship between workload and work-family conflict is weaker for employees with higher supervisor work-family support compared to those with low support.

Fig. 1 presents the graphical representation of this interaction plotted at conditional values (one standard deviation above and below mean) of supervisor work-family support (Cohen, Cohen, West, & Aiken, 2003). As shown in Fig. 1, the relationship between workload and work-family conflict is weaker when supervisor work-family support is high (vs. low). Simple slope analyses indicate a non-significant relationship between daily workload and daily work-family conflict when supervisor support is high ( $b = 2.23, p > .05$ ) and a significant relationship when supervisor support is low ( $b = 2.74, p < .01$ ). These results support Hypothesis 2.

**Table 2**

Unstandardized coefficients of the multilevel model testing main effects and mediation effects.

Predictor	Work-family conflict		Life satisfaction	
	Estimate	SE	Estimate	SE
Fixed effect				
Gender	-.09	.12		
Age	.06	.05		
Managerial work-family specific support	.00	.01		
Workload	.30**	.07	.00	.05
Work-family conflict			-.17**	.05
Managerial work-family specific support $\times$ workload	-.16*	.07		
Variance component				
Intercept	0.37**	.07		
Workload	0.06	.04		
Residual	.27**	.04		

Note. Level 1 N = 544, Level 2 N = 134.

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



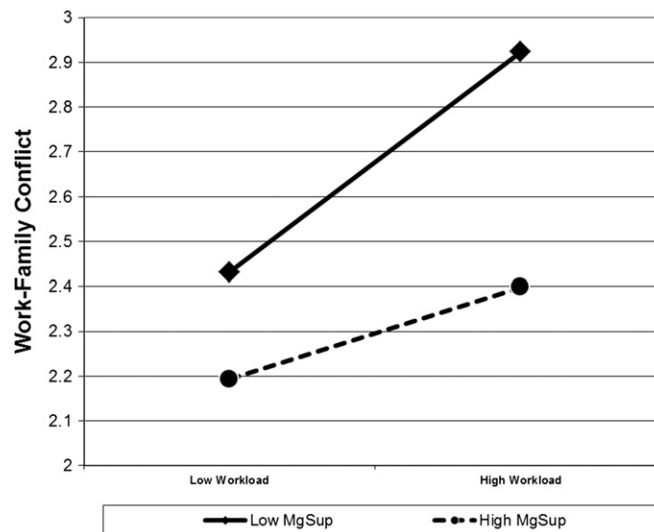


Fig. 1. Supervisor work–family support moderates the effect of daily workload on daily work–family conflict.

To test for a moderated-mediation effect (*Hypothesis 4b*), we estimated the indirect relationships of daily workload and life satisfaction via daily work–family conflict at high (+ 1 standard deviation) and low (– 1 standard deviation) levels of supervisor work–family support (Bauer, Preacher, & Gil, 2006). The indirect effect is  $-.04$  ( $SE = .02$ ,  $p < .05$ ) when supervisor work–family support is high versus an indirect effect of  $-.06$  ( $SE = .01$ ,  $p < .01$ ) when supervisor work–family support is low. However, the effect of the difference between the two conditions was  $.02$  with a 95% CI of  $[-0.003, 0.034]$ , indicating that the moderating effect of supervisor work–family support on the indirect effect was not significant. Thus, *Hypothesis 4b* was not supported.

In sum, *Hypotheses 1 through 3 and 4a* were supported, but we did not find support for *Hypothesis 4b*. Fig. 2 presents a summary of our model and results from these analyses.

## 4. Discussion

Using an experience sampling design, this study examined the impact of workload on general well-being via cross-domain effects of work–family conflict at a daily, within-individual level. Results indicate that daily workload has an indirect effect on daily life satisfaction via daily work–family conflict. In particular, workload increases work–family conflict which, in turn, decreases life satisfaction within-individuals. Additionally, the positive relationship between daily workload and daily work–family conflict was moderated by a cross-level effect of supervisor work–family support. This relationship was weaker for individuals who have high support versus those who have low work–family support, suggesting that employees who receive supervisor work–family support experience less daily interference with their family performance from high workloads on the job. However, the moderating role of supervisor work–family support does not ultimately influence relationships with daily life satisfaction. Hence, the present research indicates that informal supervisor work–family support significantly reduces the influence of high workloads on work–family conflict, yet does not impact the indirect relationship on individuals' daily life satisfaction. We suspect the lack of support for the cross-level moderation of the indirect effect is due to the relatively low statistical power to detect between-individual and cross-level effects (our between-individual samples size was 135, compared to 544 at the within-individual level); of course, this is coupled with the fact that this moderated mediation effect – if it exists – is likely lower in magnitude than the cross-level effect that we did support.

### 4.1. Theoretical and practical implications

Our findings have several important theoretical and practical implications. First, while studies demonstrate the negative effects of workload on life satisfaction (e.g., Demerouti et al., 2005), these studies focus on between-individual assessments, rather than within-individual variations. By using an experience-sampling methodology, we demonstrate that these relationships occur within

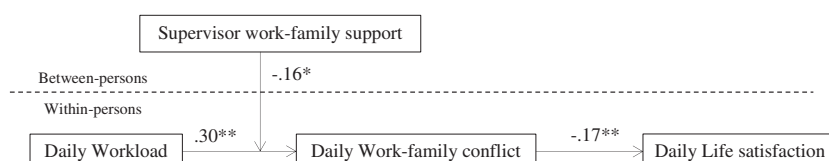


Fig. 2. Model with unstandardized parameter estimates of path coefficients. \* $p < .05$ . \*\* $p < .01$ .

individuals and fluctuate daily, not simply between individuals as previous studies have shown. The results show that global evaluations of employees' quality of life (i.e., life satisfaction) are not static but a dynamic process and can indirectly result from daily workload experiences.

In addition to replicating the daily, within-individual effects of workload on work–family conflict (Ilies et al., 2007), we extend this contribution by looking at how this relationship plays into people's well-being evaluations. Our results indicate that workload has an indirect impact on well-being evaluations via spillover effects into the home domain. On the other hand, workload does not have a direct effect on life satisfaction. These findings suggest that individuals do not evaluate life satisfaction poorly due to high job demands, as there might be positive indirect effects of workload on life satisfaction through other variables (e.g., need fulfillment, and challenge). Yet a negative impact of job demands on life satisfaction occurs when it causes one to be unable to fulfill other demands in life (e.g., family). This indicates that general well-being evaluations are not simply based on domain-specific demands, but on how these demands result in spillover or cross-domain effects.

In addition, our study supports the idea that supervisor work–family support is a resource that enables individuals to cope with daily interference from work to home (Behson, 2005; Thompson et al., 1999). More importantly, this cross-level interaction indicates that there are differences between individuals in how strong these daily relationships are, and these differences are associated with the level of supervisor work–family support they receive. To our knowledge, this is the first study to examine cross-level effects of supervisor work–family support on employee well-being, directly answering the call for such research by Kossek et al. (2011). Taken together, this study adds to the burgeoning literature that uses the COR model in work–family research (e.g., Grandey & Cropanzano, 1999) and extends COR by demonstrating that its predictions occur daily within-individuals as well as how support acts as a resource to buffer these day-to-day effects.

In terms of practical implications, the study indicates that maintaining employees' well-being is a daily undertaking and not simply a task left to blanket policies implemented by the organization. First, supervisors concerned with maintaining employee well-being need to be mindful of daily variation in workload since it impacts employees' work–family conflict and general well-being. This could translate into creating better practices regarding time management, project and task management, staffing and scheduling. Improved planning and coordinating of tasks and resources, by both supervisors and employees, could reduce daily workload and fluctuations in workload for employees, and subsequently, well-being.

Second, having formal organizational policies might be costly and less effective than building a family-supportive organizational culture by means of inculcating family-supportive attitudes and behaviors in supervisors. In fact, the literature indicates that family-supportive informal support seems to be a necessary condition, as compared to formal policies or general support (c.f., Kossek et al., 2011), in promoting work–family balance. Informal work–family support may allow for lower work–family stress in employees with supportive supervisors by helping them more easily juggle multi-role demands. Encouraging supervisors to discuss and accommodate employees work and family concerns can specifically weaken the positive influence of workload on employees' conflict experiences at home after work. Nonetheless, the current research also set reasonable expectations about the effects of such supervisor support and suggests that support specific to work and family may not buffer the indirect relationship from workload to daily, general well-being.

#### 4.2. Strengths, limitations, and future research

Our methodological strengths include the following, among others. First, our experience sampling method allowed us to explain within-person variance, enabling us to understand how individuals' well-being fluctuates over time as a consequence of their daily job experiences. Second, we avoided issues related to piecemeal and causal step approaches to mediation by using a path analytic framework (i.e., estimating all paths simultaneously) to test the hypothesized model (Bauer et al., 2006; Edwards & Lambert, 2007; Preacher, Zyphur, & Zhang, 2010), ensuring rigorous empirical testing of the hypothesized multilevel model.

However, there are limitations that deserve to be discussed. One set of limitations concerns our study design. First, self-selection bias might have affected our sample. Those with very high workloads would be less likely to participate in an intensive experience sampling method (c.f. Ilies et al., 2007). Thus, perhaps the sample overall has a low to moderate workload which allows them to participate in the study comfortably. Despite this, our methodology primarily focuses on capturing within-individual fluctuations, and thus, should remain unaffected by the average workload of participants. However, we recognize that the dynamic processes might fluctuate differently for occupations or employees that have extremely high or low workloads. Second, the data were all self-report, and therefore, might have resulted in threats of common source bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Yet, our daily data were collected at two different time points – at work and home – and with two different mediums (Web and paper surveys), which reduce this bias and address causality issues (temporal precedence).

Another set of concerns relate to variable measurement and omission. Our measure of supervisor support does not detail the forms of support provided, and thus, cannot compare instrumental and emotional support. Clearly, supervisor work–family support is a crucial resource which helps employees deal with the spillover effects of job demands. Yet, little is known regarding the relative usefulness of different forms of support, limiting the practical recommendations that one can give to supervisors. Given the relatively sparse literature on supervisor work–family support, future research could look more closely at how different forms of work–family support create different resources for individuals to combat various types of work–family conflict. Workload was also measured as perceived job demands, rather than or in addition to an objective measurement (e.g., number of hours worked). Future research should utilize a more nuanced measure and examine how objective workload relates to the different types of work–family conflict i.e., time, strain and behavior-based (Greenhaus & Beutell, 1985). Also, future research should look more broadly at the issue of managing daily workload, which is especially pertinent for occupations that experience “peak periods” in workload such as customer service. For instance, a

sudden spike in workload might require more resources in a shorter amount of time from the worker, and thus, lead to a faster draining of resources, which may hold implications for conflict and burnout patterns.

In addition, it may be fruitful to look at other potential cross-level support relationships including coworkers (c.f., Kossek et al., 2011). This is important considering that employees do not interact solely with supervisors, especially in team-work intensive environments, and other coworkers might need to pick up the slack for employees who fulfill their family-related requests (Dex, 2003). Understanding how various actors within an organization can play a part in crafting a positive and supportive environment have practical implications for creating intervention and training strategies for different actors (e.g., Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011).

Despite the limitations discussed, our study identified key findings involving daily workload and its indirect effect on daily life satisfaction via daily work–family conflict. This adds additional support to the notion that spillover effects can be detrimental to employees' quality of life (general well-being) and highlights the importance of understanding such spillover effects. Our study is also informative with regards to the cross-level effects of supervisor work–family support, addressing a recent call by Kossek et al. (2011), which contributes to our understanding of the role that informal work–family support at work can play in employees' lives.

## References

- Adams, G.A., King, L.A., & King, D.W. (1996). Relationships of job and family involvement, family social support, and work–family conflict with job and life satisfaction. *Journal of Applied Psychology*, 81(4), 411–420.
- Allen, T.D. (2001). Family-supportive work environments: The role of organizational perceptions. *Journal of Vocational Behavior*, 58(3), 414–435. <http://dx.doi.org/10.1006/jvbe.2000.1774>.
- Allen, T.D., Herst, D.E., Bruck, C.S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, 5(2), 278–308. <http://dx.doi.org/10.1037/1076-8998.5.2.278>.
- Bacharach, S.B., Bamberger, P., & Conley, S. (1991). Work-home conflict among nurses and engineers: Mediating the impact of role stress on burnout and satisfaction at work. *Journal of Organizational Behavior*, 12, 39–53. <http://dx.doi.org/10.1002/job.4030120104>.
- Bakker, A.B., & Demerouti, E. (2007). The job demands–resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <http://dx.doi.org/10.1108/02683940710733115>.
- Barnett, R.C., & Hyde, J.S. (2001). Women, men, work, and family. *American Psychologist*, 56(10), 781–796. <http://dx.doi.org/10.1037/0003-066X.56.10.781>.
- Bauer, D.J., Preacher, K.J., & Gil, K.M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychological Methods*, 11(2), 142–163. <http://dx.doi.org/10.1037/1082-989X.11.2.142>.
- Behson, S.J. (2002). Which dominates? The relative importance of work–family organizational support and general organizational context on employee outcomes. *Journal of Vocational Behavior*, 61(1), 53–72. <http://dx.doi.org/10.1006/jvbe.2001.1845>.
- Behson, S.J. (2005). The relative contribution of formal and informal organizational work–family support. *Journal of Vocational Behavior*, 66(3), 487–500. <http://dx.doi.org/10.1016/j.jvb.2004.02.004>.
- Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. *Journal of Vocational Behavior*, 67(2), 169–198. <http://dx.doi.org/10.1016/j.jvb.2004.08.009>.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale: Erlbaum.
- Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, 98(2), 310–357. <http://dx.doi.org/10.1037/0033-2909.98.2.310>.
- Demerouti, E., Bakker, A.B., Nachreiner, F., & Schaufeli, W.B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <http://dx.doi.org/10.1037/0021-9010.86.3.499>.
- Demerouti, E., Bakker, A.B., & Schaufeli, W.B. (2005). Spillover and crossover of exhaustion and life satisfaction among dual-earner parents. *Journal of Vocational Behavior*, 67(2), 266–289. <http://dx.doi.org/10.1016/j.jvb.2004.07.001>.
- Dex, S. (2003). *Families and work in the twenty-first century*. Bristol: Policy Press.
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75. [http://dx.doi.org/10.1207/s15327752jpa4901\\_13](http://dx.doi.org/10.1207/s15327752jpa4901_13).
- Eby, L.T., Casper, W.J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, 66(1), 124–197. <http://dx.doi.org/10.1016/j.jvb.2003.11.003>.
- Eby, L.T., Maher, C.P., & Butts, M.M. (2010). The intersection of work and family life: The role of affect. *Annual Review of Psychology*, 61, 599–622. <http://dx.doi.org/10.1146/annurev.psych.093008.100422>.
- Edwards, J.R., & Lambert, L.S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, 12(1), 1–22. <http://dx.doi.org/10.1037/1082-989X.12.1.1>.
- Edwards, J.R., & Rothbard, N.P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review*, 25(1), 178–199. <http://dx.doi.org/10.5465/AMR.2000.2791609>.
- Enders, C.K., & Tofighi, D. (2007). Centering predictor variables in cross-sectional multilevel models: A new look at an old issue. *Psychological Methods*, 12, 121–138. <http://dx.doi.org/10.1037/1082-989X.12.2.121>.
- Frone, M.R., Yardley, J.K., & Markel, K.S. (1997). Developing and testing an integrative model of the work–family interface. *Journal of Vocational Behavior*, 50(2), 145–167. <http://dx.doi.org/10.1006/jvbe.1996.1577>.
- Geurts, S.A., Kompier, M.A., Roxburgh, S., & Houtman, I.L. (2003). Does work–home interference mediate the relationship between workload and well-being? *Journal of Vocational Behavior*, 63(3), 532–559. [http://dx.doi.org/10.1016/S0001-8791\(02\)00025-8](http://dx.doi.org/10.1016/S0001-8791(02)00025-8).
- Grandey, A.A., & Cropanzano, R. (1999). The conservation of resources model applied to work–family conflict and strain. *Journal of Vocational Behavior*, 54(2), 350–370. <http://dx.doi.org/10.1006/jvbe.1998.1666>.
- Greenhaus, J.H., & Allen, T.D. (2011). *Work–family balance: A review and extension of the literature*. *Handbook of occupational health psychology*, 165–183.
- Greenhaus, J.H., & Beutell, N.J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76–88. <http://dx.doi.org/10.2307/258214>.
- Hammer, L.B., Kossek, E.E., Anger, W.K., Bodner, T., & Zimmerman, K.L. (2011). Clarifying work–family intervention processes: The roles of work–family conflict and family-supportive supervisor behaviors. *Journal of Applied Psychology*, 96(1), 134–150. <http://dx.doi.org/10.1037/a0020927>.
- Hammer, L.B., Kossek, E.E., Yragui, N.L., Bodner, T.E., & Hanson, G.C. (2009). Development and validation of a multidimensional measure of family supportive supervisor behaviors (FSSB). *Journal of Management*, 35(4), 837–856. <http://dx.doi.org/10.1177/0149206308328510>.
- Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524. <http://dx.doi.org/10.1037/0003-066X.44.3.513>.
- Hofmann, D.A., & Gavin, M.B. (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24(5), 623–641. <http://dx.doi.org/10.1177/014920639802400504>.
- Ilies, R., & Judge, T.A. (2002). Understanding the dynamic relationships among personality, mood, and job satisfaction: A field experience sampling study. *Organizational Behavior and Human Decision Processes*, 89, 1119–1139. [http://dx.doi.org/10.1016/S0749-5978\(02\)00018-3](http://dx.doi.org/10.1016/S0749-5978(02)00018-3).



- Ilies, R., Schwind, K.M., Wagner, D.T., Johnson, M.D., DeRue, D.S., & Ilgen, D.R. (2007). When can employees have a family life? The effects of daily workload and affect on work–family conflict and social behaviors at home. *Journal of Applied Psychology*, 92(5), 1368–1379. <http://dx.doi.org/10.1037/0021-9010.92.5.1368>.
- Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of Management Journal*, 44(5), 1039–1050. <http://dx.doi.org/10.2307/3069447>.
- Judge, T.A., Thoresen, C.J., Bono, J.E., & Patton, G.K. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407. <http://dx.doi.org/10.1037/0033-2909.127.3.376>.
- Kopelman, R.E., Greenhaus, J.H., & Connolly, T.F. (1983). A model of work, family, and interrole conflict: A construct validation study. *Organizational Behavior and Human Performance*, 32(2), 198–215. [http://dx.doi.org/10.1016/0030-5073\(83\)90147-2](http://dx.doi.org/10.1016/0030-5073(83)90147-2).
- Kossek, E.E., Colquitt, J.A., & Noe, R.A. (2001). Caregiving decisions, well-being, and performance: The effects of place and provider as a function of dependent type and work–family climates. *Academy of Management Journal*, 44(1), 29–44. <http://dx.doi.org/10.2307/3069335>.
- Kossek, E., & Distelberg, B. (2009). Work and family employment policy for a transformed work force: Trends and themes. In A. Booth, & A.C. Crouter (Eds.), *Work-life policies that make a difference* (pp. 4–71). Washington, DC: Urban Institute Press.
- Kossek, E.E., & Ozeki, C. (1998). Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior human resources research. *Journal of Applied Psychology*, 83(2), 139–149. <http://dx.doi.org/10.1037/0021-9010.83.2.139>.
- Kossek, E.E., Pichler, S., Bodner, T., & Hammer, L.B. (2011). Workplace social support and work–family conflict: A meta-analysis clarifying the influence of general and work–family-specific supervisor and organizational support. *Personnel Psychology*, 64(2), 289–313. <http://dx.doi.org/10.1111/j.1744-6570.2011.01211.x>.
- Lapierre, L.M., & Allen, T.D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: Implications for work–family conflict and employee well-being. *Journal of Occupational Health Psychology*, 11(2), 169–181. <http://dx.doi.org/10.1037/1076-8998.11.2.169>.
- Lobel, S.A., & Kossek, E.E. (1996). Human resource strategies to support diversity in work and personal lifestyles: Beyond the “family friendly” organization. In E.E. Kossek, & S.A. Lobel (Eds.), *Managing diversity: Human resource strategies for transforming the workplace* (pp. 221–243). Cambridge, MA: Blackwell.
- Muthén, L.K., & Muthén, B.O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903. <http://dx.doi.org/10.1037/0021-9010.88.5.879>.
- Preacher, K.J., Zyphur, M.J., & Zhang, Z. (2010). A general multilevel SEM framework for assessing multilevel mediation. *Psychological Methods*, 15, 209–233. <http://dx.doi.org/10.1037/a0020141>.
- Spector, P.E. (1997). *Job satisfaction: Applications, assessment, causes, and consequences*. Thousand Oaks, CA: Sage Publications.
- Thomas, L.T., & Ganster, D.C. (1995). Impact of family-supportive work variables on work–family conflict and strain: A control perspective. *Journal of Applied Psychology*, 80, 6–15. <http://dx.doi.org/10.1037/0021-9010.80.1.6>.
- Thompson, C.A., Beauvais, L.L., & Lyness, K.S. (1999). When work–family benefits are not enough: The influence of work–family culture on benefit utilization, organizational attachment, and work–family conflict. *Journal of Vocational Behavior*, 54(3), 392–415. <http://dx.doi.org/10.1006/jvbe.1998.1681>.
- Voydanoff, P. (2002). Linkages between the work–family interface and work, family, and individual outcomes: An integrative model. *Journal of Family Issues*, 23(1), 138–164. <http://dx.doi.org/10.1177/0192513X02023001007>.
- Williams, K.J., Suls, J., Alliger, G.M., Learner, S.M., & Wan, C.K. (1991). Multiple role juggling and daily mood states in working mothers: An experience sampling study. *Journal of Applied Psychology*, 76, 664–674. <http://dx.doi.org/10.1037/0021-9010.76.5.664>.
- Wright, T.A., & Cropanzano, R. (2000). Psychological well-being and job satisfaction as predictors of job performance. *Journal of Occupational Health Psychology*, 5(1), 84–94. <http://dx.doi.org/10.1037/1076-8998.5.1.84>.