



## Workplace Flexibility and Daily Stress Processes in Hotel Employees and their Children

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### Introduction

In recent years, there has been increasing recognition that workplace flexibility affords individuals the opportunity to manage the responsibilities of employment and caregiving as well as personal needs. Flexibility has been defined in a variety of ways, because it can represent a range of options. Flexible work arrangements encompass flexibility in the scheduling of hours worked, the amount of hours worked, and the location of work (Workplace Flexibility 2010). The ability to have one's schedule and workplace adapt to life's demands can make filling multiple roles less stressful, whereas rigid work schedule and location expectations can be stressful in day-to-day life.

Our research aims to understand the predictors and consequences of inadequate workplace flexibility through the lens of daily stress processes. Using daily stress and emotional stress paradigms, we examined the extent to which hourly workers with low flexibility were exposed to more stressors, were more reactive to those stressors, and transmitted these stressful experiences to their children more often compared to workers with high flexibility. We did so by using a sample of hourly hotel employees and their children aged 10 to 18 who participated in a daily diary study.

## Hotel Work and Well-Being Study

This work was initiated through a program officer's grant from the Alfred P. Sloan Foundation to learn about work and family issues in the hotel industry. Our discussions with industry leaders as well as with hotel employees and their spouses indicated that some common stressors were linked to the health of employees and possibly of their family members, including long and unpredictable work hours; schedules that do not dovetail well with family schedules, routines, and rituals (e.g., weekend, holiday work); permeable family boundaries (e.g., ubiquitous pagers, cell phones, etc.); unexpected snafus that require immediate attention (e.g., overbooked rooms, employees who do not report to work); and stressful interactions with guests and co-workers that must be handled professionally (Cleveland et al., 2004).

Building on this information, we received additional Sloan Foundation funding and were chosen by NICHD to be a part of the Work, Family & Health Network to carry out a larger and more systematic study to examine the effects of daily stress on hotel employees and their family members. This project uses the daily diary method as a tool for understanding the work-family interface in its dynamic complexity. In particular *our project highlights our group's interest in understanding the day-to-day processes through which daily stressors on the job come to shape the daily health and well-being of individual hotel employees and their family members.* We argue that the daily diary method is an essential tool for research focused on workplace flexibility because it can illuminate, on a day-to-day basis, employees' utilization of workplace policies or practices, as well as whether and how such utilization patterns co-vary with daily indicators of work-family conflict and their links to psychological and physical health.

## Daily Stress Paradigm

We designed the project to be a telephone diary study of daily stressors and health among hotel hourly workers and their children. The primary goal was to examine patterns of exposure to day-to-day work and family stressors as well as individuals' physical and emotional reactivity to these stressors. *Daily stressors* are defined as relatively minor events arising out of day-to-day living, such as the everyday concerns of work, caring for others, and commuting between work and home. They can also refer to small, more unexpected events that disrupt daily life: "little" life events such as arguments with children, unexpected work deadlines, or a malfunctioning computer. In terms of their physiological and psychological effects, daily stressors may be associated with spikes in arousal or psychological distress that day (Almeida, 2005). In addition, minor daily stressors exert their influence not only by having separate and immediate direct effects on emotional and physical functioning, but also by piling up over a series of days to create persistent irritations, frustrations, and overloads that may result in more serious stress reactions such as anxiety and depression (Lazarus, 1999; Zautra, 2003).

## Stressor Pathways to Individual Health and Well-Being

There are two primary pathways through which daily stressors impact individual well-being: stressor exposure and stressor reactivity (Almeida 2005). *Stressor exposure* is the likelihood that an individual will experience a stressor based on combinations of individual and situational factors. Experiencing stressors is not simply a matter of chance or bad luck; rather differences in stressor exposure more often emerge from individual sociodemographic, psychosocial, and situational factors (Pearlin, 1993, 1999; Wheaton, 1997, 1999). There is substantial evidence that stable sociodemographic, psychosocial, and situational factors, such as gender (Almeida & Horn, 2004; Hamarat, Thompson, Zabrocky, Steele, Matheny, & Aysan, 2001), personality (Bouchard; 2003, Penley & Tomaka, 2002), and social support

Brewin & MacCarthy, 1989; Felsten, 1991) play a significant role in differences in stressor frequency, content, and appraisal. We believe that inadequate workplace flexibility limits workers' control and time to proactively plan daily responsibilities and thus increase exposure to daily stressors.

*Reactivity* is the likelihood that an individual will show emotional or physical reactions to the stressors he or she encounters (Almeida, 2005; Bolger & Zuckerman, 1995; Cacioppo, 1998). In this sense, stressor reactivity is not defined as well-being (i.e., negative affect or physical symptoms), but is operationally defined as the within-person relationship between stressors and well-being. Reactivity, therefore, is a dynamic process that links stressors and well-being over time. Previous research shows that people who are more reactive to daily stressors are more susceptible to physical disease than are people who are less reactive (Cacioppo et al, 1998). Because resources of individuals and their environments (e.g., education, income, chronic stressors) limit or enhance the possibilities and choices for coping (Lazarus, 1999), reactivity to stressors is likely to differ across people and across situations. The stressor reactivity pathway therefore contends that sociodemographic, psychosocial, and other situational factors modify reactivity to daily stressors. One primary goal of this paper is to assess whether inadequate workplace flexibility increases exposure and reactivity to work and home-related daily stressors.

### **Stressor Pathways to Family Members: Stressor Transmission**

It is important to mention that the effects of daily stressors are not limited to the individual. Family members and close others may also bear the brunt of such stressors. Larson and Almeida (1999) proposed a research paradigm to assess emotional transmission in families. Within this paradigm the family is viewed as a nexus of daily interchanges among household members and between these members and the world outside the family. Through regular patterns of interactions with each other and outside systems, family members are affected by and affect each other. Our project focused primarily on how the work setting affects not only the employee's health, but also the child's or spouse's health (i.e., crossover) and other indicators of family functioning. For example, a worker experiencing a great deal of interpersonal tension at work may experience psychological distress that is brought home in the evening and regularly affects his/her spouse and children. Through such chain reactions, stressors enter the family through a particular family member and are transmitted to other family members in a predictable sequence. The final goal of this paper is to investigate whether inadequate work flexibility predicts increased stressor transmission from hotel employees to their children.

### **Daily Diary Methods**

The understanding of daily stressors has benefited from the development of diary methods that involve repeated measurements on individuals during their daily lives. On each occasion of measurement, individuals report the stressors they experienced on that day as well as the behaviors, physical symptoms, and emotional states experienced during that same time frame. Perhaps the most valuable feature of diary methods is the ability to assess within-person processes. This paradigm represents a shift from identifying universal, *between-person* patterns of association between stressors and health to charting the day-to-day fluctuations in stress and health *within individuals* as well as identifying their predictors, correlates, and sequelae (Reis & Gable, 2000). Stress is a process that occurs within the individual, and research designs need to reflect this. For example, instead of asking whether individuals with high levels of work stress experience more physical health problems than individuals with less stressful jobs, a researcher can ask whether a worker experiences more health problems on days when he or she has too many deadlines (or is reprimanded) compared to days when work has been stress-free. As we will underscore in our concluding remarks about this

project, we think this feature of the method has enormous potential for understanding how workplace flexibility affects the daily lives of employees and their family members.

### Flexibility and Daily Stress

Increasingly in the past decade researchers have been interested in how flexibility is linked to stress and health. Flexible work policies have been associated with fewer stress-related health problems and better physical health (Butler, Grzywacz, Ettner, & Liu, 2009; Grzywacz, Carlson, & Shulkin, 2008; Halpern, 2005). Little is known about the underlying mechanisms connecting flexibility and health. Flexibility could serve as a protective factor in exposure to stressors and/or how reactive an individual is to stressors that are inevitable in daily life. Low flexibility could exacerbate the link between stress and negative affect and health symptoms. Unfortunately, often those who need flexible work arrangements the most do not have access to them. Women, less educated, and minority workers are less likely to have access than other workers (Golden, 2001). Low-income workers and hourly workers are less likely to get access to flexible arrangements (Corporate Voices for Working Families, 2006; Swanberg, Pitt-Catsoupes, & Drescher-Burke, 2005). In order to address this important issue, our analyses use a sample of female minority hourly workers and one of their children aged 10-18. In particular we investigated the role of flexibility in daily stress processes of female minority hourly workers by addressing the following research questions:

1. Does daily stressor exposure differ by levels of workplace flexibility?
2. Does daily stressor reactivity vary by workplace flexibility?
3. Does daily stressor transmission from mothers to children occur depend on the level of flexibility?

## Method

### Participants and Procedure

Our research has focused on the experiences of hotel employees, including the daily work experiences of individuals in different positions of the industry (general managers, department managers, hourly workers). In one component of the study we examined work-family processes by measuring the daily experiences of hourly hotel workers and their offspring (aged 10-18). Specifically, hotel employees and their family members were telephoned on 8 consecutive days and asked to report on their daily experiences, including time use, stressful experiences, family processes, and daily psychological and physical well-being.

For these analyses, data came from 47 hotel hourly employees and their biological or adopted children. After getting permission from Human Resource managers, research assistants set up tables (usually in the staff cafeteria at the hotel) to share information about the Hotel Work and Well-Being Study to hourly employees in full-service hotels (i.e., restaurant on location) across the United States. Using this strategy, 157 hourly employees expressed an interest in participating in the study. Of those 157 employees, interviewers were able to reach 105 participants who met eligibility requirements. Criteria were that participants (a) were hourly (not salary) staff at the hotel in housekeeping, in food and beverage, or at the front desk, (b) were proficient in English, and (c) had a child between the ages of 10 and 18 who resided at home and who would be allowed to and willing to participate. Of the 105 eligible participants, 75 hotel hourly employees (71%) completed a baseline telephone survey on work and family responsibilities, health, well-being, and background information. Following the baseline survey, fifty nine children out of 71 possible completed the daily diary (i.e., 83%). Because 80% of the hourly parents were mothers, the analyses were restricted to mothers. Thus, for the

proceeding analyses, 47 mother-child dyads were included ( $N = 323$  days from mothers, 331 days from children). Of the 323 days from mothers, 230 were work days.

The sample was comprised of mothers with hourly positions who had mostly been in the hotel industry for 8 years on average ( $SD = 5.72$ , range = 1-26). They were 39 years on average ( $SD = 7.57$ ) with 57% having a high school degree or less. Median income was \$25,000 ( $M = 25,134$ ,  $SD = 9,150$ ). Seventy percent of the mothers were Black or African American, 25% were non-Hispanic White, 4% were Hispanic, and 4% were Asian. They had three children on average ( $M = 2.89$ ,  $SD = 1.81$ ). Target children (the one child selected from each family to participate) were, on average, thirteen years old ( $SD = 2.33$ ) and in the eighth grade. A little more than half of the youth participants were boys (57%).

## Measures

*Workplace flexibility* was derived from three items from Thompson, Beauvais, and Lyness (1999) work-family culture scale included in the baseline survey. These items specifically reference flexibility in the workplace. They are: "In your hotel it is very hard to leave during the workday to take care of personal or family matters", "In your hotel, employees who participate in available work-family programs (e.g., job sharing, part-time work) are viewed as less serious about their careers than those who do not participate in the programs", and "In your hotel, employees who use flextime are less likely to advance their careers than those who do not use flextime". Participants used a 5-point Likert scale to respond from (1) *strongly disagree* to (5) *strongly agree*. On average, hourly employees had neutral feelings about flexibility in their workplace ( $M = 3.15$ ,  $SD = 1.29$ ). For comparing hourly employees with low versus high flexibility, two groups were created: The low flexibility group (64%) indicated they, on averaged agreed with the items ( $M = 2.38$ ). The high flexibility group (36%) indicated that they disagreed or strongly disagreed" with the items ( $M = 4.5$ ). Cronbach's alpha for the three items was .75.

*Hourly worker's daily stressors* were measured using the Daily Inventory of Stressful Events (DISE; Almeida, Wethington, & Kessler, 2002). During the daily telephone calls, interviewers asked a series of stem questions about whether the hourly employee had experienced work- and nonwork-related of stressors in the past 24 hours. The work-related stressors questions only referred to stressors experienced at the hotel job specifically. These included work arguments, interpersonal tensions, employee or co-worker related stressors, stressors involving hotel guests, and general work overloads. For each stressor experienced, interviewers probed about the content, the focus of who was involved, perceived threat (e.g., disappointment, loss), severity, and appraisal (i.e., areas of life that were at risk because of stressor). Stressors outside of work included arguments with others, arguments with the target child, network stressors, home stressors, and stressors involving the target child. Only the latter two were included here. For these analyses, stressors were coded as 0 = *no stressor that day* and 1 = *stressor*. Each work stressor was tested in separate models but at both the between- and within-person levels.

*Parent's negative affect* was assessed using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Using a 5-point scale (0 = *very slightly/not at all*; 4 = *extremely*), each day parents rated how much of the day they felt different indicators of negative mood. Ten items reflecting negative mood (distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, afraid) were averaged separately, so that higher scores represented experiencing that mood for more time on a given day. On average, participants reported experiencing very low negative affect; the scale was positively skewed and had to be transformed by adding a constant of one and performing a log transformation. Cronbach's alphas for parent's negative affect were .87 at the between-person level and .76 at the within-person level.

*Children's negative affect* was assessed using a shortened version of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) that was used for the parents. Youth rated (0 = *very slightly/not at all*, 4 = *extremely*) how much of the time that day they felt four negative (upset, irritable, nervous, afraid) emotions. The negative affect scale was created by averaging responses on the respective items. Like parents, children reported experiencing low negative affect; the scale was positively skewed and had to be transformed by adding a constant of one and performing a log transformation. Cronbach's alpha for children's negative affect was .66 at the person level and was .54 at the day level.

*Parents' health symptoms* were assessed using a shortened version of Larsen and Kasimatis' (1991) symptom checklist. We omitted items that overlapped with the psychological distress scale (e.g., "urge to cry"). Our version assessed aches (e.g., headaches, backaches, and muscle soreness), gastrointestinal symptoms (e.g., poor appetite, nausea/upset stomach, constipation/diarrhea), and upper respiratory symptoms (e.g., sore throat, runny nose). Each day the respondents indicated whether they had each symptom (0 = *no*, 1 = *yes*) and rated their severity (1 = *very mild*, 10 = *very severe*). We calculated number of daily symptoms by summing the affirmative responses out of a possible 21 each day. This scale has been validated in National Study of Daily Experiences (Almeida et al., 2002). Parents had a daily mean of 2 health symptoms ( $SD = 2.65$ , range = 0-14).

*Children's health symptoms* were also assessed using an adaption of Larsen and Kasimatis' (1991) symptom checklist. Each day, children were asked how much of the time that day they experienced "a headache, backache, or muscle soreness"; "a cough, sore throat, fever, chills, or other cold symptoms"; "allergies or asthma"; and "nausea, diarrhea, poor appetite, or other stomach problems". Children responded from 1 = *all the time* to 5 = *none of the time*. Items were reverse-coded, recoded so that zero equaled none of the time, and averaged so that higher numbers represent more health symptoms that day. Children's daily responses ranged from 0 to 1.67 ( $M = 0.19$ ,  $SD = 0.33$ ).

The covariates included in all models were day in study, parent age, number of kids, and number of work hours. *Day in study* ranged from one to eight. Starting days of interviews varied, so that day in study and day of the week did not necessarily correspond. In models, day in study was recentered so that 0 equaled Day 1. *Parent age* was obtained in the hourly baseline interview and was centered at the grand mean of 39. *Number of children* was created by summing the responses to two questions in the baseline interview: "How many biological or adopted children currently live with you (at least half the time)?" and "How many step-children or foster children currently live with you (at least half the time)?" This variable was centered at the mean rounded up to the nearest whole number, 3. The final covariate was work hours, which was assessed daily in the diary by the question, "Since this time yesterday, how many hours did you spend at your hotel job?" This variable was grand-mean centered at 6 hours.

## Analysis Plan

For the stressor exposure research question, we computed *t*-tests to compare low and high-flexibility hourly employees on frequency of experiencing various stressors. The dependent variables were the means of stressors across the eight days. For stressor reactivity and transmission, we used the Proc Mixed function in SAS to test multilevel models (Singer, 1998).

The data necessitated the use of multilevel modeling (MLM) for several reasons. First, because the same participants completed the daily diaries for eight consecutive days (i.e., multiple observations from the same person), their responses were nonindependent, which is a violation of an underlying assumption of general linear models. The

responses were also nonindependent because responses on days closer to one another (e.g., Days 3 and 4) tend to be more similar than responses on days farther apart (e.g., Days 3 and 8). As a result, committing a Type I error is more likely, because standard errors will be inaccurately small and significant tests will be too lenient if the days are treated as non-nested within individuals. Therefore, the datasets were constructed so that each family had eight lines of data – one line per day. Second, some participants did not complete all eight days of the daily diary. MLM uses as much data on the dependent variables provided by each person as are available, rather than deleting participants who are missing any data from the analyses as traditional OLS regression would do. In other words, MLM models do not require the same data structure for each person. Third, MLM allows one to partition the variance into multiple levels (Bryk & Raudenbush, 1992). Using MLM to analyze daily data permits researchers to add another level of interpretation beyond between-person or between-family comparisons; researchers can examine within-person (or within-family) variability (Almeida, 2005). Models distinguish among fixed effects (i.e., parameter estimates that describe the overall values for the sample) and random effects (the variability or error around the fixed effects). Therefore we tested two-level models. At level one, we included day in study and stressor (person-mean centered). At level two, we included the mean of a given stressor across the eight days, the categorical flexibility variable, and the rest of the covariates (age, number of kids, and work hours). In the models, intercepts were allowed to vary. Finally, two-way interactions between stressors and flexibility were included to test flexibility as a moderator in stressor reactivity and transmission.

## Results

### Descriptive Statistics

Table 1 shows the means, standard deviations, and correlations of the stressor and well-being variables. In the table, flexibility is a continuous variable to get a general picture of the associations. The variables are at the between-person (mean across days) level. As can be seen, high flexibility at work is associated with fewer arguments and experiencing any stressor at work. Higher flexibility is also significantly related to lower parental negative affect and fewer health symptoms. Greater frequency of work stressors was generally linked to greater negative affect and, for arguments at work, with more health symptoms.

**Table 1: Between-Person Means, Standard Deviations, and Correlations among Variables (N = 47)**

	1	2	3	4	5	6	7	8	9	10	11	12	
1. Flexibility	1.00												
2. Arguments at work	-.53**	1.00											
3. Tensions at work	-.15	.33*	1.00										
4. Emp/coworker stressors	.04	-.06	.03	1.00									
5. Hotel guest stressors	.11	.04	.26†	.00	1.00								
6. Any work stressor	-.41**	.62**	.73**	.26†	.31*	1.00							
7. Home stressors	.06	.10	.10	.28†	.27†	.17	1.00						
8. Stressor involving child	.12	.10	.28*	-.04	.07	.20	.29*	1.00					
9. Parent NA (log)	-.30*	.45*	.55**	.30*	.16	.59**	.12	.12	1.00				
10. Parent symptoms	-.36*	.30*	.38	.01	.04	.28†	.19	-.05	.52**	1.00			
11. Child NA (log)	.20	-.19	-.02	-.13	-.09	-.15	-.11	.18	.16	.01	1.00		
12. Child symptoms	.08	-.16	.05	-.06	-.15	-.12	-.06	.11	-.25†	.07	.69**	1.00	
	<i>M</i>	3.15	0.10	0.11	0.04	0.03	0.31	0.05	0.04	0.16	2.19	0.21	0.19
	<i>SD</i>	1.31	0.15	0.14	0.09	0.07	0.27	0.09	0.09	0.13	2.24	0.17	0.20

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

**Table 2: T-tests of Stressor Exposure and Distress by Flexibility (N = 47)**

	Low flexibility N = 30		High flexibility N = 17		<i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Stressors</i>					
Arguments at work	0.13	0.17	0.05	0.09	$t(45) = 2.33, p < .05$
Tensions at work	0.12	0.14	0.09	0.13	$t(45) = 0.63, ns$
Employee/coworker stressors	0.03	0.08	0.06	0.11	$t(45) = -0.75, ns$
Hotel guest stressors	0.03	0.08	0.03	0.06	$t(45) = 0.10, ns$
Any work stressor	0.37	0.28	0.21	0.22	$t(45) = 2.07, p < .05$
Home stressors	0.06	0.09	0.04	0.10	$t(45) = 0.60, ns$
Stressor involving target child	0.06	0.11	0.02	0.05	$t(45) = 1.44, ns$
<i>Mother Distress</i>					
Negative affect <sup>a</sup>	0.17	0.13	0.13	0.13	$t(45) = 0.93, ns$
Physical symptoms	2.63	2.50	1.42	1.46	$t(45) = 2.09, p < .05$
<i>Child Distress</i>					
Negative affect <sup>a</sup>	0.20	0.18	0.22	0.17	$t(45) = -0.50, ns$
Physical symptoms	0.20	0.21	0.18	0.19	$t(45) = 0.28, ns$

<sup>a</sup>Log transformed due to skewness and kurtosis.

## Workplace Flexibility and Stressor Exposure

The first research aim was to investigate whether hourly hotel workers with low flexibility were exposed to more stressors than workers with high flexibility. *T*-tests were computed on the mean frequency of stressors across the study days. Table 2 shows that hourly workers with low flexibility reported more work arguments than workers with high flexibility. Low flexibility workers experienced a work argument on 13% of the days, whereas high flexibility workers only experienced them on 5% of the days. Hourly workers with low flexibility also reported having work stressors more often (37% of the days) compared to workers with high flexibility (21% of the days). The table also shows that low flexibility workers have more physical health symptoms than high flexibility workers. The remaining *t*-test results, although non-significant, follow the same pattern (with the exception of employee/coworker stressors).

## Workplace Flexibility and Stressor Reactivity

The second aim of this study was to determine if there were differences in stressor reactivity by amount of flexibility. Indeed, there was evidence of this. First, there was a significant interaction between the within-person predictor of work tensions and flexibility on employees' negative affect (see Table 3). Having more work tensions, on average, was linked to having greater negative affect. However, controlling for this between-person effect, there was evidence of daily variability. The estimates of simple slopes for low and high flexibility revealed that having a work tension on a given day was associated with greater negative affect compared to days with no work tensions but only for hourly employees with low flexibility, *Est.* = .13, *t*(191) = 2.67, *p* < .01. There was no significant within-person association for employees with high flexibility, *Est.* = -.12, *t*(191) = -1.75, *ns*. This interaction is displayed in Figure 1. There was also a between-person association between frequency of employee/coworker stressors and flexibility predicting negative affect, *Est.* = -0.93, *t*(54) = -1.98, *p* = .05. Hourly employees with a high frequency of employee/coworker stressors had greater negative affect when their flexibility was high, *Est.* = .97, *t*(54) = 2.84, *p* < .01. A trend-level interaction between having a stressor at home on a given day and flexibility predicting negative affect also emerged, *Est.* = -.24, *t*(277) = -1.92, *p* = .06. For employees with high flexibility, having a home stressor was linked to greater negative affect compared to days when they did not have a stressor at home, *Est.* = .24, *t*(277) = 2.30, *p* < .05.

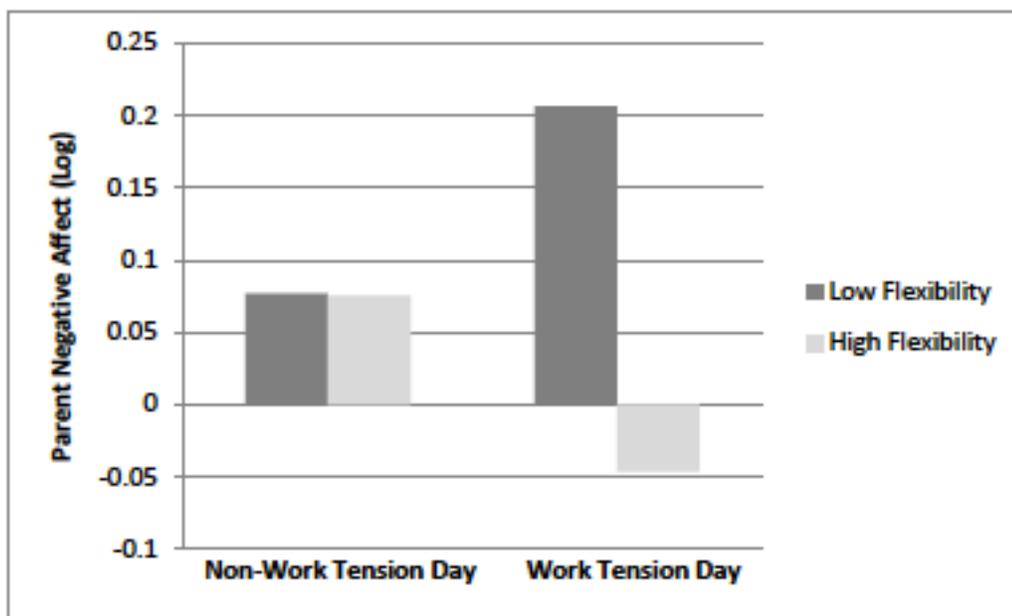
There was one stressor by flexibility interactions predicting health symptoms. There was a within-person any work stressor by flexibility interaction predicting symptoms, *Est.* = .97, *t*(190) = 2.01, *p* = .05. Only the estimate for low flexibility was significant, *Est.* = .55, *t*(190) = 2.01, *p* = .05: Having any type of work stressor on a given day was associated with more health symptoms but only for employees with low flexibility.

**Table 3: Multilevel Models of Flexibility as a Moderator of Hourly Workers' Reactivity to Work Tensions**

	Negative Affect		Physical Symptoms	
	<i>Est.</i>	<i>SE</i>	<i>Est.</i>	<i>SE</i>
<i>Fixed Effects</i>				
Intercept	0.08*	0.04	1.73**	0.58
Day <sup>a</sup>	0.002	0.01	-0.21**	0.04
Age <sup>b</sup>	-0.002	0.002	0.001	0.04
Number of kids in home <sup>c</sup>	0.01	0.01	0.23	0.16
Daily work hours <sup>d</sup>	-0.01	0.01	-0.11	0.18
Flexibility <sup>e</sup>	0.001	0.04	0.91	0.72
BP work tension	0.56*	0.22	4.28	3.62
WP work tension	-0.12	0.07	-0.40	0.52
BP work tension X flexibility	0.25	0.26	3.30	4.31
WP work tension X flexibility	0.25**	0.08	0.90	0.63
<i>Random Effects</i>				
Intercept	0.01*	0.003	2.97**	0.70
Residual	0.03**	0.003	1.79**	0.18

<sup>a</sup>Day was centered at Day 1. <sup>b</sup>Age was centered at the mean age of 39. <sup>c</sup>Number of kids was centered at the mean which was 3. <sup>d</sup>Daily work hours was centered at the mean of 6 hrs/day. <sup>e</sup>Flexibility was coded as 0 = Low flexibility and 1 = High flexibility.   
 \*\* $p < .01$ . \* $p < .05$ .

**Figure 1. Flexibility as a moderator of parents' reactivity to workplace tensions.**



## Workplace Flexibility and Transmission of Daily Stress

The third and final research aim was to test whether there was evidence of flexibility as a moderator of daily stress transmission from hourly employees to their children. There was a significant between effect of stressors related to the target child and flexibility predicting children's negative affect; however, given that the stressor could have involved the child, this is not clear evidence of transmission. Besides this significant interaction, there was one trend-level interaction. There was some evidence of transmission of parents' work tensions: There was an interaction between work tensions and flexibility predicting children's negative affect (see Table 4). The more work tensions hourly workers had, the higher their children's negative affect if their jobs were low in flexibility; this did not hold for workers with high flexibility (see Figure 2).

**Table 4**

### Multilevel Models of Flexibility as a Moderator of Hourly Worker's Transmission of Work Tensions to their Child

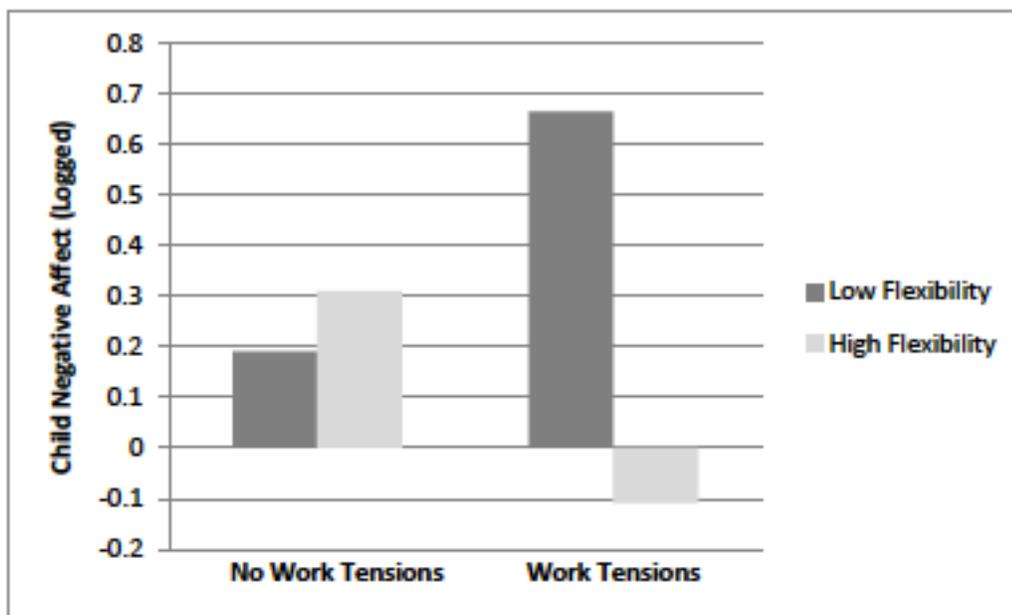
	Negative Affect		Physical Symptoms	
	Est.	SE	Est.	SE
<i>Fixed Effects</i>				
Intercept	0.31**	0.07	0.30**	0.07
Day <sup>a</sup>	-0.02*	0.01	-0.02*	0.01
Age <sup>b</sup>	-0.003	0.004	-0.001	0.004
Number of kids in home <sup>c</sup>	0.01	0.02	0.003	0.02
Daily work hours <sup>d</sup>	0.02	0.02	-0.01	0.02
Flexibility <sup>e</sup>	-0.12	0.08	-0.02	0.08
BP work tension	-0.42	0.39	-0.56	0.40
WP work tension	0.11	0.10	-0.10	0.12
BP work tension X flexibility	0.89†	0.46	0.53	0.48
WP work tension X flexibility	-0.15	0.12	0.10	0.14
<i>Random Effects</i>				
Intercept	0.03**	0.01	0.02**	0.01
Residual	0.06**	0.01	0.08**	0.01

<sup>a</sup>Day was centered at Day 1. <sup>b</sup>Age was centered at the mean age of 39. <sup>c</sup>Number of kids was centered at the mean which was 3.

<sup>d</sup>Daily work hours was centered at the mean of 6 hrs/day. <sup>e</sup>Flexibility was coded as 0 = Low flexibility and 1 = High flexibility.

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

Figure 2. Flexibility as a moderator of the transmission of parents' work tensions to children's negative affect.



## Discussion

Few would argue that allowing flexible work arrangements to workers does not yield benefits for employees at all levels. Extant research has shown that flexibility to employees can even benefit employers due to lower health costs and turnover of employees (Halpern, 2005). More research, however, is needed to understand the benefits of flexible work arrangements for employees. Therefore, the present study examined whether flexibility can provide a context for less stressor exposure, reactivity, and transmission in individuals' daily lives.

In terms of the first research aim, there was some support showing that hourly workers with low flexibility having greater stressor exposure, to work arguments in particular. The rest of the results follow the pattern that hourly workers with low flexibility are more susceptible to experiencing daily stressors. Arguments at work could be on the topic of flexibility, as some open-ended responses have revealed, or could be due to the lack of flexibility and potentially other less-desirable job conditions.

For the second research aim, overall, most findings support the notion that low flexibility exacerbates stressor reactivity for hourly hotel employees. In conditions of low flexibility, daily workplace tensions were associated with higher negative affect and experiencing any work stressor was linked to more health symptoms on the same day. Thus, it seems that low flexibility can make coping with daily hassles at work more difficult, whereas high flexibility would be a protective factor. The following description of a work place tension from one of our hourly employees illustrates this situation:

*There are request forms for employees to fill out when they need to request a day off. I put in a request to have the 16<sup>th</sup> off. My supervisor said she could not give me the day off. I explained to my supervisor that I wanted to go to the dentist that day and I have had to put if off twice already. I decided not to argue, because I need my job. This was very stressful and I was very angry.*

Another description from an hourly employee shows how schedule inflexibility can be stressful as it relates to parenting responsibilities:

*I avoided an argument with my boss today. The schedule came out and she scheduled me for a night shift when I can only work mornings because I have to be home for the kids. This was stressful and I was somewhat angry and nervous. This made me want to leave my job but this would risk my financial situation.*

A counter-intuitive finding did emerge, however: Only for employees with high flexibility, high frequency of stressors involving coworkers had greater negative affect. This could be a sporadic finding, but it brings up an interesting notion - in some cases, high flexibility may not be protective. Future research should examine when high flexibility can be protective and to what point.

The third aim was to determine stressor transmission from parents to children depends on parents' flexibility on the job. Although trend-level, there was some evidence of stressor transmission when parents had low flexibility. Specifically, when parents had low flexibility (not high), the more work tensions they had, the greater their child's negative affect. The absence of significant findings could be due to the measurement of children's affect and symptoms. Future research should continue to explore the possibility of how parents' work experiences can be transmitted or "cross over" to children and how flexibility may be a resource when faced with negative work experiences.

Although only a first step, the present analyses show the utility of a daily diary design in studying workplace flexibility. Future research would benefit from a more comprehensive measure of flexibility than used here. Although even with this measure, some interesting findings emerged.

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