Incorporating home demands into models of job strain: Findings from the Work, Family & Health Network

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Abstract

Objective—To integrate home demands with the Demand-Control-Support model to test if home demands interact with job strain to increase depressive symptoms.

Methods—Data were from 431 employees in four extended care facilities. Presence of a child under age 18 in the household signified home demands. The outcome was depressive symptoms based on a shortened version of the Center for Epidemiologic Studies Depression Scale.

Results—The association between job strain and depressive symptoms was moderated by social support (SS) and presence of a child in the household (child). There was no association among participants with high SS and no child, but a positive one among participants with low SS and a child.

Conclusions—Job strain may be a particularly important determinant of depressive symptoms among employees with family demands. Models of job strain should expand to incorporate family demands.

Keywords

job strain; work and family; depression; social support; extended care facilities

INTRODUCTION

Researchers have developed multiple models of work stress over the past several decades and a large body of literature provides evidence that workplace experiences affect health outcomes (1–5). These models, however, rarely incorporate considerations of demands and stress from home. Demands from home may exacerbate risks, particularly among individuals in stressful jobs and workers who have serious obligations at home. In this paper, we examine how home demands and job strain interact to increase depressive symptoms among employees in four extended care facilities.

Extant literature supports two models of job strain. The first rests on the large body of work by Karasek and Theorell and others on the Demand-Control model (1–2). This model includes two psychosocial work characteristics: psychological job demands and decision latitude. Job strain conceptualized along these lines has been shown to be related to a number of important health outcomes (for reviews, see 6–8). Johnson and Hall (9) recommended the inclusion of social support with the Demand-Control model, to comprise the Demand-Control-Support (DCS) model. Theoretical and empirical studies support the addition of social support to this model (10–11). While the initial focus of the DCS model was cardiovascular health, numerous reports provide evidence that high job demands, low job control, and low social support are associated with increased risk of depressive symptoms, depression, or other related mental health outcomes (12–18).

The second model of job strain is the Effort-Recovery model (4). According to this model, meeting the requirements of a job requires effort, and this effort has physiological and psychological reactions. Recovery is possible when effort is no longer required. Limited ability to recover during non-work hours has been shown to increase risk of emotional exhaustion (19) and depressed mood (20).

There is a growing literature on the health impacts of work-family demands (e.g., 21–23) and several recent studies have made important contributions to our understanding of the role work-family factors may play in the relation between job stress and health outcomes (24–26). However, neither the DCS nor the Effort-Recovery models explicitly takes into consideration the potential for demands at home to exacerbate job stress so as to substantially increase risk for poor health outcomes. Demographic changes over the past several decades have spurred interest in how workers combine work and family factors. Women's participation in the workforce has increased considerably, there are more dual-earner couples as well as single-parent families, mothers with young children are increasingly likely to work outside of the home, and there are increasing numbers of people in the "sandwich generation" who may have caring responsibility for their children and their parents (27–29). These demographic changes have altered the composition of the workforce as well as the home and family demands experienced by the majority of the workforce. Given these trends, we believe that models of workplace stress should expand to deal with and account for these significant stressors that influence a large portion of the workforce.

The first aim of this paper was to confirm the job strain model developed by Karasek and Theorell in a racially and ethnically diverse work force of low wage workers in the extended care sector. Our second aim was to integrate the DCS and Effort-Recovery models with our growing understanding of home demands to empirically test the hypothesis that home demands interact with job strain to increase risk of depressive symptoms. Following Grzywacz and colleagues (19), we hypothesized that recovery is hampered in individuals who have many demands at home and that home demands in terms of family obligations and dependents add considerable strain to the lives of employees. We suspect this may be especially true for low wage and service workers with demanding jobs and limited workplace flexibility. Additionally, many workers in the US have very limited sick and vacation leave, do not qualify for the Family and Medical Leave Act[1], or cannot afford to take unpaid leave from their jobs (30). The limited safety net for workers who also have caregiving responsibilities jeopardizes their ability to meet the needs of those who depend on them and succeed in the workplace (30). In this study we explore the relation between our integrated model of work and family demands and

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[1]The Family and Medical Leave Act of the United States of America requires that covered employers (the primary qualification is employing 50 or more employees) provide 12 weeks of unpaid leave annually to eligible employees (the primary qualification is employed by the covered employer for at least 12 months and at least 1250 hours of work in the past 12 months) for the birth of a child, adoption of a child, or to care for an immediate family member or oneself due to a serious health condition.

depressive symptoms in a highly diverse sample of employees in the long term care sector. Using the presence of a child in the household as a proxy for having significant demands at home, we tested if job strain has a greater impact on depressive symptoms among individuals with significant demands at home.

We focused on hourly and low-wage employees because they are often overlooked in both the job strain – health literature and in management decisions about policies that impact the workplace. This study aims to understand more about this "invisible workforce" (31). Additionally, employees in extended care facilities face a difficult and complex set of workplace stressors, including demanding physical work, difficult schedules called for by the need for around the clock care, and emotional strain related to witnessing the decline of elderly patients.

METHODS

Sample and data collection

Subjects were employees from four extended care facilities in Massachusetts who took part in a cross-sectional survey of employee experiences with workplace policies and informal practices. We chose the extended care sector due to interest in small-sized businesses that employ lower-wage and racially/ethnically diverse workforces. Trained research assistants administered the survey in English, Spanish, and Haitian Creole between September 2006 and July 2007. We conducted interviews during employees' work shifts; interviews took approximately 40 minutes. We invited all eligible employees at each worksite to participate in the survey (n=590), with a response rate of 76.6% (n=452). This study was approved by the Institutional Review Board at the Dana Farber Cancer Institute, Boston MA.

Measures

Outcome: Depressive symptoms—We assessed depressive symptoms assessed with a shortened version of The Center for Epidemiologic Studies Depression Scale (CESD). The CESD was developed for use in epidemiologic studies to assess past-week depressive symptomology (32). The shortened version used in this study was developed by researchers at the Iowa site of the Established Populations for Epidemiologic Studies of the Elderly (EPESE) and includes eleven of the twenty items from the original CESD. Table 1 displays the items in this scale. The items retained in the shortened version were selected to represent the same major symptom components captured by the twenty-item CESD (depressed affect, positive affect, somatic complaints, and interpersonal problems) (33). The reliability of this shortened scale has been demonstrated in six samples of women (Chronbach's alpha ranging from 0.71 to 0.87) (34). Furthermore, scores from this shortened version have shown high correlations (r=0.88 to 0.95) with scores using the original CESD in diverse samples (33–34). We made one change to the abbreviated version: we used four response options as the original CESD (responses range from experiencing the symptoms rarely or none of the time to most or all of the time). Internal consistency reliability of this abbreviated scale in this sample was good: Chronbach's alpha = 0.79. There is no clinically-defined cut-off value indicating probable depression for this shortened version of the CESD, thus we used a continuous score to indicate depressive symptomatology.

Primary Predictor: Job strain—We assessed exposure to work stress based on the theoretical and empirical work of Karasek and Theorell (2,35) and Johnson and Hall (9). Using questions derived from classic questionnaires (1,2,35–37), we assessed job demands, job control, and social support. Table 1 displays the items used for each scale. We calculated each scale as the sum of the ordinal response options (items reverse coded where necessary). These scales showed adequate internal consistency, as measured by Chronbach's alpha: for job

demands, alpha=0.66, for job control, alpha=0.82, and for social support, alpha=0.75. We dichotomized each of these measures at the 50th percentile in order to create high and low groups for job demands, job control, and social support. The combination of job demands and job control resulted in four quadrants of exposure to job strain: 1. High strain – high job demands and low control; 2. Active jobs – high job demands and high control; 3. Passive jobs – low job demands and low control; 4. Low strain – low job demands and high control. In the DCS model, social support modifies the effect of job strain (9).

Moderator: Presence of a child in the household—We asked respondents to provide the age and relationship of each household member. From this, we created a dichotomous variable for presence of a child aged 18 years or younger in the household as well as a dichotomous variable for presence of *own* child aged 18 years or younger in the household.

Sociodemographic factors and potential confounders—We chose variables that have been previously linked with job characteristics and depressive symptomatology as covariates; these are age, gender, education, race/ethnicity, marital status, household income, hours worked per week, presence of a health condition, and frequency of bodily pain. All of these were self-reported during the interview. We included age as a continuous variable. We categorized education into four groups: less than high school, high school diploma or GED, some college, college degree. Respondents were asked to report their yearly household income from all sources as well as how many people were supported by this income. We computed adjusted household income as the total household income divided by the square root of the number of individuals supported by this income (38); we then categorized this adjusted household income into tertiles based on the distribution in this sample. Hours worked per week was a continuous variable expressing the average number of hours each respondent worked per week at the extended care facility. We assessed the frequency of bodily pain in the past 4 weeks, scale ranging from never to every day. In addition, we included work site as a potential confounder because the four work sites varied in size, location, and policies; they also likely varied in unmeasured characteristics, such as work atmosphere and patient characteristics.

Potential mediator: Work-family spillover—Based on the recommendations of the Sloan Work-Family Researchers Electronic Network (39), we asked participants how often in the past month they were preoccupied with work while at home and how often they were preoccupied with personal responsibilities while at work. If the response to either question was "often," we considered the respondent to experience work-family spillover.

Statistical analysis

We examined the bivariate relation between each work characteristic (job demands, job control, job strain, and social support) and depressive symptomatology. Our first aim was to confirm the DCS model. To address this aim, we examined the relation between the four quadrants of job strain and depressive symptomatology in multivariable models. In multivariable modeling, we chose covariates that were empirically or theoretically associated with exposure and outcome. Models controlled for age, gender, education, race/ethnicity, marital status, household income, hourly wage, hours worked per week, bodily pain, and worksite. Inclusion of number of children and job tenure did not alter the effect estimates for the exposures of interest, so these variables were not included in the multivariable models presented here. We ran models for the whole sample and stratified by social support at work. We also tested for the specificity of the buffering effect of social support at work by testing whether social support at home or size of social networks would provide a similar buffering effect. Our second aim was to test the hypothesis that home demands interact with job strain to increase risk of depressive symptoms. To address this aim, we further stratified according to presence of a child in the household. We tested for mediation by work-family spillover in those strata that showed

a significant association between job strain and depressive symptoms by including work-family spillover in the social support- and child-stratified models.

As a cross-sectional study relying on self-report, it is difficult to establish a causal relationship between work characteristics and depressive symptoms. One important threat to causal inference is mood-dependent recall, which occurs when individuals who are depressed recall and report work characteristics differently (worse) as a result of their depressive outlook. Thus, relying on self-report for both work characteristics and depressive symptoms may lead to an over-estimation of the association between the two due to mood-dependent recall, instead of due to the causal impact work characteristics have on depressive symptoms (the true interest of the study). To assess the degree to which the association between job strain and depressive symptoms is attributable to mood-dependent recall, we examined if depressive symptoms predicted self-report of job characteristics (job demands, job control, and social support) within each of two occupation groups. We tested within occupation groups because occupations have different amounts of job demands, job control, and social support and because individuals in the same occupation are expected to have very similar (objective) job characteristics; thus, within each occupation, there should be no association between depressive symptoms and work characteristics. If depressive symptoms predict report of higher job demands, low job control, or lower social support within a single occupation, we have evidence of mood-dependent recall. We tested these associations in the two occupations with sufficient sample size: nursing aides (n=173) and licensed practical nurses (n=59).

RESULTS

The mean on the depressive symptoms scale was 6.78 (SD: 4.96, range: 0–26). The mean age (range) of subjects was 42 years (18–82); 74% worked full-time at the worksite; 52% had a child under age 18 years in the household. One hundred fourteen (25%) of the sample were in high strain jobs (high demands and low control), 110 (24%) in active jobs, 87 (19%) in passive jobs, and 138 (31%) in low strain jobs. Table 2 provides sociodemographic and work characteristics for the sample as well as bivariate relationships between these factors and depressive symptoms. The sample was predominantly female (83%). Results from analyses restricted to females were very similar to results including the whole sample. Thus, we present results for the whole sample and we control for the effect of gender in all multivariable models.

In multivariable models of the whole sample, individuals in high strain jobs, active jobs, and passive jobs experienced more depressive symptoms compared to individuals in low strain jobs (Table 3). The strongest association was observed for individuals in high strain jobs, who had, on average, depressive symptom scores 2.2 points higher (95% CI: 0.7, 3.6) than individuals in low strain jobs. In models stratified by social support at work, job strain was associated with increased depressive symptoms only among those reporting low social support (Table 3).

To test for the specificity of the buffering effect of social support at work, we repeated these analyses stratifying by two other measures of social support: social support at home and social networks. Social support at home was positively correlated with social support at work (r=0.25, p<0.01), but social networks were not significantly correlated with social support at work (r=0.05, p=0.30). High social support at home and large social networks did not buffer the association between job strain and depressive symptoms (Table 4). Thus, buffering of the association between job strain and depressive symptoms by social support appeared to be specific to social support received at work.

In models stratified by social support at work and presence of a child in the household, the largest effect estimates for each of the job strain exposures were among subjects who reported

low social support *and* presence of a child (Table 5). In this stratum, high strain was associated with depressive symptoms scores 2.9 points higher (95% CI: −0.4, 6.2) than individuals in low strain jobs. As displayed in the Figure, there was a trend in the association between high job strain and depressive symptoms according to presence of a child and social support at work: there was no association among participants with high social support and no child (estimated effect of high job strain on depressive symptoms=0.1 (95% CI: −3.1, 3.3)), some association among those with low social support and no child (estimated effect=1.8 (95% CI: −1.5, 5.2)), a larger association among those with high social support and a child (estimated effect=2.6 (95% CI: −0.5, 5.6)), and the largest association among those with low social support and a child (estimated effect=2.9 (95% CI: −0.4, 6.2)) (Figure).

To test if the effect of having a child in the household was specific to being the child of the employee (instead of sibling, grandchild, etc), we also ran these stratified analyses according to presence of employee's own child in the household. Effect estimates were similar to analyses according to presence of a child, but power was reduced due to smaller numbers of own child in this sample (181 own child compared to 225 any child in household).

We tested for mediation by work-family spillover by adding work-family spillover to the stratified models. The addition of spillover did not appreciably alter the estimated association between high strain and depressive symptoms among subjects without children (regardless of social support) or among subjects with low social support and a child. The estimated association between high strain and depressive symptoms was attenuated from 2.6 (−0.5, 5.6) to 2.1 (−1.0, 5.2) among subjects with high social support and a child in the household; however, both estimates have wide confidence intervals.

To test for mood-dependent recall, we tested if depressive symptoms predicted self-report of job characteristics in two occupational groups. In nursing aides and licensed practical nurses, respectively, depressive symptoms did not predict self-report of job demands (estimated effect=0.03 (95% CI: −0.03, 0.09), estimated effect=0.07 (95% CI: −0.07, 0.21)) or job control (estimated effect=−0.03 (95% CI: −0.09, 0.03), estimated effect=−0.02 (95% CI: −0.15, 0.10)). Depressive symptoms predicted report of lower social support among nursing aides (estimated effect=−0.12 (95% CI: −0.18, −0.05)), but not among licensed practical nurses (estimated effect=−0.06 (95% CI: −0.16, 0.04)). Thus, there was little evidence that the negative outlook associated with depression could account for the association between job strain and depressive symptoms.

DISCUSSION

The findings from this study indicate that job strain is related to depressive symptoms and this relationship is modified by social support at work and presence of a child in the household. Job strain is a particularly important predictor of increased depressive symptoms for those with children, especially if they also have low social support at work. These results suggest that family responsibilities, particularly the presence of a child in the household, are important elements in understanding how occupational strains predict mental health status among employees. The mechanism for these associations may be inhibited rest while at home due to the demands of caring for a child. This interpretation is in line with the Effort-Recovery model, which proposes that individuals experience physiological and psychological changes when they attempt to meet the requirements of their job. Physiological reactions include alterations in hormone levels and psychological reactions include alterations in motivation and mood (4). These reactions are reversible if there is a period of time during which recovery is allowed. Under conditions of inadequate rest, recovery is inhibited and the physiological and psychological reactions may have long-term effects, such as changes in physiological and psychological functions (4).

This study extends the current literature on work and work-family factors that affect mental health in two primary ways. First, we have tested and confirmed the operation of the DCS model in a racially and ethnically diverse work force of low wage workers in the extended care sector. Second, we have incorporated concepts from the DCS model, the Effort-Recovery model, and the growing work-family literature to test a model of how work and family demands combine to affect depressive symptoms.

Limitations of this study arise from cross-sectional design, reliance on self-report for employee information, and use of abbreviated measures for work characteristics and work-family spillover. Cross-sectional information makes establishing temporality between work characteristics and depressive symptoms impossible, thus limiting our ability to make causal interpretations. In particular, we cannot distinguish between a scenario in which work characteristics cause depressive symptoms and a scenario in which depressive symptoms lead to reduced functioning on the job, job reassignments, and hence worse work characteristics.

Regarding the issue that all employee information is self-report, it could be that an association between work characteristics and depressive symptoms represents distorted reporting by those suffering from depressive symptoms (mood-dependent recall). In this case, it would not be appropriate to conclude that work characteristics cause depressive symptoms, but rather that depressive symptoms lead subjects to report work characteristics in a more negative way. We took advantage of the sampling design of this study to investigate this concern. Though we performed multiple tests (a test for each work characteristic for each occupation), in only one instance did depressive symptoms significantly predict a work characteristic: lower social support in nursing aides. Further, the effect estimate was small. Thus, it is unlikely that mood-dependent recall can explain the association between job strain and depressive symptoms, or the modifying impact of social support and a child in the household.

Regarding use of abbreviated scales, due to the wide scope of the interview, inclusion of collection of biomarkers of health, and consideration for the fact that we were administering interviews during the employees work shift, our survey instruments often included abbreviated scales. While inclusion of full scales would have been ideal, it was simply untenable in this study.

This study has several important strengths. First, its focus on an industry with low wage workers in particularly demanding jobs (nursing, for example) and a workforce primarily comprised of women. These factors allowed us to study work and family demands among a population that may be particularly at risk for poor mental health and among whom the combination of work and family demands is likely to be significant. Second, data were collected within worksites and occupations, which allowed us to investigate potential confounding by mood-dependent recall in this cross-sectional, self-report study. Third, assessment of work and home factors allowed us to test an integrated model of work and family demands that combine to increase risk of poor mental health.

Future research should incorporate demands from home and family into models of work stress. The model presented here, with home demands as a modifier of the effect of job strain, is one way to theoretically link home and work stress. Though we used presence of a child in the household as a proxy for demands at home, future research should refine assessment of home demands. Furthermore, our assessment of spillover was based on self-report of often being preoccupied with work at home or with personal responsibilities at work; future studies may benefit from a more detailed assessment of how home and work considerations interact as a potential mediating process between job strain and health outcomes. A more detailed understanding of home demands and mechanisms through which home demands affect health

outcomes may help us develop effective interventions to reduce stress in the home and in the workplace.

Understanding which home or family factors put employees at increased risk of adverse outcomes and how home stressors interact with stressors in the workplace could inform workplace policies, particularly those regarding workplace flexibility, work load, and social support. Employees with significant demands at home may benefit from policies and practices that give them additional leeway to change tasks and take breaks; they may also benefit from enhanced efforts by managers and colleagues to provide encouragement and support. Workplace policies and practices provide an important avenue for promoting mental health; incorporating home demands into our understanding of work stress may yield an even better understanding of how to promote health and well being in workplace settings.

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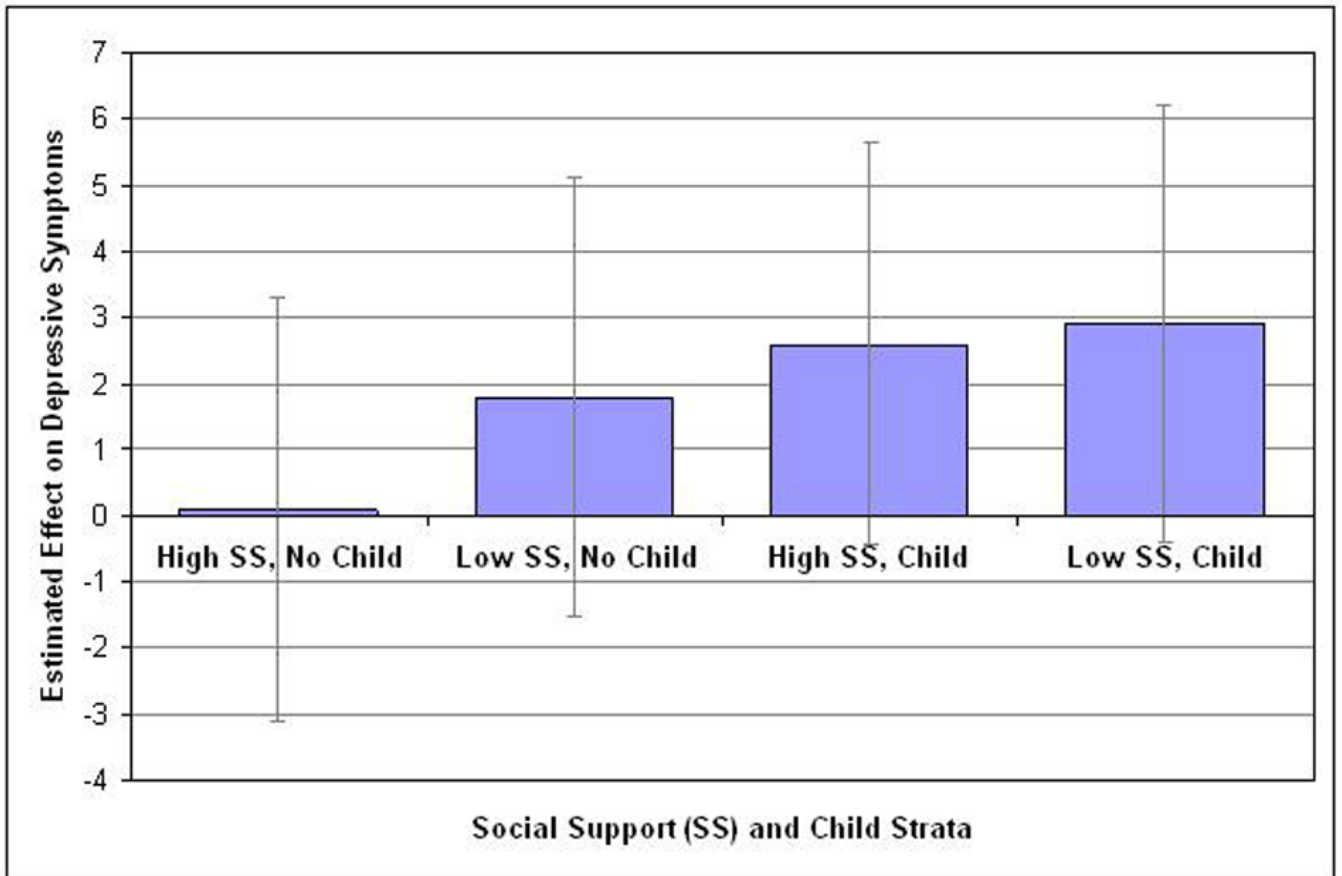
Acknowledgments

Figure 1.

Table 1

Scale Items for Depressive Symptoms and Work Characteristics

Depressive Symptoms in the past week (0:rarely/never; 1:sometimes; 2:much of time; 3:most times)

    I felt depressed.

    I felt everything I did was an effort.

    My sleep was restless.

    I was happy. (reverse)

    I felt lonely.

    People were unfriendly.

    I enjoyed life. (reverse)

    I felt sad.

    I felt that people disliked me.

    I could not get going.

    I did not feel like eating; my appetite was poor.

Job demands (1:strongly disagree, 2:disagree, 3:agree, 4:strongly agree)

    My job requires lots of physical effort.

    My job requires rapid and continuous physical activity.

    In my job I am often moving or lifting very heavy loads.

    In my job I am often working for long periods with my head or arms in awkward positions.

    In my job I am often working for long periods with my body in awkward positions.

Job control (1:strongly disagree, 2:disagree, 3:agree, 4:strongly agree)

    My job requires that I learn new things.

    My job requires a high level of skill.

    I get to do variety of different things on my job.

    My job allows me to make a lot of decisions on own.

    On my job, I have very little freedom to decide how I do my work. (reverse)

    I have a say in my work speed.

    I can decide when to take a break.

Social support (0:never; 1:rarely; 2:sometimes; 3:often)

    How often do you get help and support from your colleagues?

    How often are your colleagues willing to listen to your work related problems?

    How often do you get help and support from your immediate supervisor?

    How often is your immediate supervisor willing to listen to your problems?

Table 2

Characteristics of participants (n=431) and mean depressive symptoms according to characteristics.

	n	%		Depressive Symptoms	
			mean	SD	p-value [*]
Sociodemographic Characteristics					
Age (in years)					0.06
<=25	60	13.9	7.4	4.9	
26–35	90	20.9	6.4	4.6	
36–45	121	28.1	7.7	5.5	
46–55	99	23.0	6.4	4.9	
56+	61	14.2	5.7	4.5	
Gender					0.09
Female	358	83.1	6.9	5.1	
Male	73	16.9	6.0	4.0	
Currently married/living with partner					0.08
No	192	44.6	7.2	4.8	
Yes	239	55.5	6.4	5.1	
Education					0.04
Less than high school	65	15.1	6.2	4.4	
High school or GED	125	29.0	7.8	5.3	
Some college	170	39.4	6.6	4.9	
College or more	71	16.5	6.0	4.7	
Race/ethnicity					<0.01
Non-Hispanic white	183	42.5	5.7	4.1	
Non-Hispanic black	155	36.0	7.8	5.7	
Non-Hispanic other	62	14.4	6.8	4.8	
Hispanic	31	7.2	8.0	4.6	
Child <=18 in household					0.05
No	206	47.8	6.3	4.6	
Yes	225	52.2	7.2	5.2	
Annual household income					<0.01
<20,000	33	8.4	8.7	6.3	
20,000–39,999	116	29.7	7.5	5.1	

	n	%	Depressive Symptoms		
40,000–59,999	94	24.0	6.2	4.7	
60,000–79,999	61	15.6	6.0	4.1	
>=80,000	87	22.3	6.0	4.3	
missing	40				0.02
Work Characteristics					
Work site					
1	63	14.6	8.3	5.6	
2	132	30.6	7.1	5.1	
3	114	26.5	6.2	5.1	
4	122	28.3	6.2	4.2	0.11
Occupation					
Health care worker	296	68.7	7.2	5.3	
Maintenance & food prep	89	20.7	6.2	4.2	
Office & administrative	34	7.9	5.5	4.0	
Other	12	2.8	5.7	3.1	0.87
Full-time employment at work site					
No	113	26.2	6.7	4.7	
Yes	318	73.8	6.8	5.0	<0.01
Job strain category					
High Strain	109	25.3	8.2	5.3	
Active	108	25.1	7.1	4.8	
Passive	80	18.6	7.0	5.3	
Low Strain	134	31.1	5.3	4.2	<0.01
Social support at work					
High	223	51.7	5.9	4.6	
Low	208	48.3	7.7	5.2	<0.01

*
Overall p-value for difference between categories.

Table 3

Associations between job strain categories and depressive symptoms: crude and multivariable adjusted models; overall and stratified by social support at work.

| | Overall (n=431) | | Stratified by Social Support (SS) at Work | | | |
| | | | Low SS (n=208) | | High SS (n=223) | |
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Crude model						
Job strain category						
High Strain	2.9	1.7, 4.2	3.5	1.6, 5.4	1.6	−0.1, 3.4
Active	1.8	0.6, 3.0	2.7	0.6, 4.8	1.0	−0.5, 2.5
Passive	1.8	0.4, 3.1	2.3	0.1, 4.5	1.1	−0.6, 2.8
Low Strain	0 (ref)		0 (ref)		0 (ref)	
Multivariable adjusted model						
Job strain category						
High Strain	2.2	0.7, 3.6	2.6	0.5, 4.8	1.5	−0.6, 3.6
Active	1.7	0.5, 2.9	2.4	0.3, 4.4	1.1	−0.5, 2.6
Passive	1.6	0.1, 3.0	1.6	−0.8, 3.9	1.3	−0.7, 3.3
Low Strain	0 (ref)		0 (ref)		0 (ref)	

Multivariable adjusted model controls for age, gender, marital status, education, race/ethnicity, household income, hourly wage, hours worked/week, site, and bodily pain.

Table 4

Is buffering of job strain specific to social support at work? Associations between job strain and depressive symptoms stratified by social networks and by social support at home

Stratified by:	Social Network (SN)				Social Support at Home (SSH)			
	Small SN (n=244)		Large SN (n=187)		Low SSH (n=187)		High SSH (n=244)	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Job strain category								
High Strain	1.4	−0.4, 3.3	2.8	0.4, 5.3	2.4	0.1, 4.8	2.2	0.5, 3.9
Active	1.3	−0.2, 2.7	1.9	−0.4, 4.2	3.5	1.3, 5.7	0.9	−0.4, 2.3
Passive	1.6	−0.2, 3.4	1.5	−1.3, 4.3	1.3	−1.3, 3.8	1.0	−0.8, 2.8
Low Strain	0 (ref)		0 (ref)		0 (ref)		0 (ref)	

All models control for age, gender, marital status, education, race/ethnicity, household income, hourly wage, hours worked per week, site, and bodily pain.

Table 5

Associations between job strain and depressive symptoms stratified by social support at work and child in household.

	Stratified by Social Support (SS) and Child in Household (Child)							
	High SS, No Child (n=114)		Low SS, No Child (n=92)		High SS, Child (n=109)		Low SS, Child (n=116)	
	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI
Job strain category								
High Strain	0.1	−3.1, 3.3	1.8	−1.5, 5.2	2.6	−0.5, 5.6	2.9	−0.4, 6.2
Active	0.9	−1.1, 2.9	0.4	−2.4, 3.2	1.7	−0.9, 4.3	2.7	−0.8, 6.2
Passive	1.1	−1.6, 3.8	−0.8	−3.9, 2.4	1.5	−1.5, 4.5	2.4	−1.4, 6.2
Low Strain	0 (ref)		0 (ref)		0 (ref)		0 (ref)	

Multivariable linear regression results. All models control for age, gender, marital status, education, race/ethnicity, household income, hourly wage, hours worked per week, site, and bodily pain.