

Who Benefits From Family Support? Work Schedule and Family Differences

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Prior research has demonstrated the benefits of family-supportive organization perceptions (FSOP) for reducing stress, increasing satisfaction, and increasing worker commitment; however, less research has studied health outcomes or possible differences in the effects of FSOP based on worker characteristics. The present study examined relationships between FSOP and health outcomes, as well as how those relationships may depend on work schedule and family differences. Using a sample of 330 acute care nurses, the findings indicated that FSOP predicted several health and well-being outcomes obtained 9 months later. Further, the relationships between FSOP and the outcome variables depended on some work schedule and family differences. In terms of family differences, FSOP was most strongly related to life satisfaction for those who cared for dependent adults. The relationship between FSOP and health outcomes of depression, musculoskeletal pain, and physical health symptoms were generally significant for workers with dependent children, but not significant for workers with no children. Regarding schedule differences, the relationship between FSOP and life satisfaction was significant for those on nonstandard (evening/night) shifts but not significant for standard day shift workers; however, there were no differences in FSOP relationships by number of hours worked per week. The findings demonstrate that FSOP may benefit some employees more than others. Such differences need to be incorporated into both future work–family theory development and into efforts to document the effectiveness of family-supportive policies, programs, and practices.

Keywords: family-supportive organization perceptions, health, life satisfaction, work schedules, work–family balance

For many workers, maintaining a balance between work and family responsibilities is one of their most important sources of stress. Many employers have implemented policies designed to help employees cope with family demands, such as on-site child care, financial assistance for dependent care, or paid family leave (Butts, Casper, & Yang, 2013). Availability of family-friendly policies has been positively related to work attitudes (Butts et al., 2013), as well as reduced work–family conflict and job-related strain (Goff, Mount, & Jamison, 1990); however, simply instituting policies may be insufficient.

Kirby and Krone (2002) argued that informal practices and norms within the company could either reinforce or undermine formal work–family initiatives. For example, a company may formally allow employees to take time off for child-care but employees may believe they will be viewed negatively by the organization for using the policy—beliefs that can discourage continued use of formal benefits. Thus, for work–family initiatives to have optimal effects, employees should also perceive that the organization is concerned about employees' family lives. Some studies show that individual wellness can be enhanced by work-life support, but further research is needed (Kossek, Lewis, & Hammer, 2010).

Allen (2001) used the term *family-supportive organization perceptions* (FSOP) to describe the “global perceptions that employees form regarding the extent the organization is family supportive” (p. 416). Employees with high FSOP feel that the organization cares about their family life and does not make workers who attend to family demands feel less valuable. Allen drew from perceived organizational support (POS) literature to argue that these global perceptions of FSOP are distinct from perceptions of how supportive a supervisor is for family life. POS is an attitude employees form about the organization's general concern for their well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986), which is distinct from attitudes employees form about direct supervisors. Allen argued that employees also form global assessments specifically about family issues. Workers who perceive their organization as family supportive are likely to have less work–family

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conflict, more positive work attitudes, and better retention outcomes (Allen, 2001; Kossek, Pichler, Bodner, & Hammer, 2011; Lauzun, Major, & Jones, 2012; Thompson, Beauvais, & Lyness, 1999; Thompson, Jahn, Kopelman, & Prottas, 2004). FSOP has a stronger relationship with work attitudes and work-family conflict than general policy availability or perceptions of general supervisor and organizational support, suggesting that FSOP is an important resource for coping with family demands (Butts et al., 2013; Kossek et al., 2011).

However, not all workers have equal family demands, raising questions about whether and how FSOP effects differ across employees. Two issues to consider are the structure of the employee's family, including the number and nature of family demands, and the employee's work schedule, including issues such as the length of the schedule and whether it includes nonstandard hours of work. Family and schedule variables are commonly included in work-family studies as control variables but few studies have investigated family related differences in effects of FSOP and we know of no studies that have investigated work schedule differences related to FSOP. Our research addressed these gaps in the literature by investigating the relationship between FSOP and health outcomes and by testing family and schedule characteristics as moderators of the FSOP-health relationship.

The present study contributes to the current literature in several ways. First, the present study extends past literature on the relationship between family support and employee health and well-being. The stressful effects of work-family conflict are well-documented and include links to psychological distress, depression, irritation, and anxiety (Hughes & Galinsky, 1994; MacEwen & Barling, 1994; O'Driscoll et al., 2003) as well as indicators of poor physical health status and health-behaviors such as unhealthy food choices, lack of exercise, and alcohol use (Allen & Armstrong, 2006; Frone, Russell, & Cooper, 1997; O'Driscoll, Brough, & Kalliath, 2004; Shockley & Allen, 2013; Wang, Liu, Zhan, & Shi, 2010). Research also shows that general support perceptions buffer the negative effects of work-family conflict on health outcomes (e.g., O'Driscoll et al., 2004; Treiber & Davis, 2012; Wang et al., 2010) and that a family-supportive supervisor can influence the relationship between work-family conflict and cardiovascular health (Shockley & Allen, 2013). Still other studies have shown interventions to increase perceptions of supervisor family support are associated with better health outcomes (Hammer, Kossek, Anger, Bodner, & Zimmerman, 2011). However, none of these studies specifically examine FSOP.

Most health-related research specifically on FSOP has focused on how FSOP can influence the well-being of workers rather than physical health. Initial studies have shown that employees who perceive the organization to be supportive of family life tend to experience lower levels of stress (Mauno, Kinnunen, & Pyykkö, 2005; Voydanoff, 2005). Further, FSOP has specifically been related to higher job satisfaction and life satisfaction (Haar & Roche, 2010; Lapierre et al., 2008) as well as negatively related to job burnout (Haar & Roche, 2010). No studies to our knowledge have specifically examined the influence of FSOP on physical health outcomes, but this relationship merits attention given the links between work-family issues and physical health (e.g., Allen & Armstrong, 2006; Frone et al., 1997). Specifically, our study examines the relationship of FSOP with life satisfaction and spe-

cific physical and mental health outcomes of health symptoms, musculoskeletal pain, and depression.

Second, our study extends literature on how family characteristics can moderate the relationship between FSOP and health and well-being. Examining family characteristics as a moderator is important to understanding how employee needs may vary and where organizations can best target efforts to alleviate tension between work and family demands. Given that past studies have found factors such as parental status to affect the utility of work-family policies (e.g., Butts et al., 2013), we anticipate that FSOP may differentially affect health and well-being based on differences in family structure. Further, our study differentiates the moderating influence of dependent children from that of dependent adults because providing care for an adult dependent involves different responsibilities and may have different implications for employed caregivers compared with caring for children (Kossek, Colquitt, & Noe, 2001).

Lastly, our study examines the influence of characteristics of an employee's work schedule on the relationship between FSOP and health and well-being. We specifically examined work shift and hours worked as moderating variables. Examining FSOP in the context of shiftwork is especially critical because work-family conflict has been found to be high among workers with nonstandard working hours (e.g., Barnett, Bareis, & Brennan, 2008; Perucci et al., 2007). Shift workers may find it difficult to take advantage of formal work-family support such as on-site child care or off-site care subsidies because such programs are available during regular day hours. In such cases, informal supports may be particularly important. Alternatively, shift workers might report lower levels of FSOP because they are unable to utilize some of the formal programs. Our study examines these potential relationships among nurses, a valuable sample for studying schedule effects because they face demanding and sometimes unpredictable work schedules that can make work-family balance more difficult (Brooks & Anderson, 2004).

Family-Supportive Organizational Perceptions

Organizations have begun to address concerns about work-family interference through formal and informal policies and practices. Organizations may implement a wide variety of formal policies to help employees balance family life, including flex time, job sharing, telecommuting, job-protected paternal leave, on-site child care, flexible spending accounts for dependent care, elder care resource and referral, and child care resource and referral (Butts et al., 2013; Thompson et al., 1999). Casper and Harris (2008) drew from signaling theory (Spence, 1973) to propose that actions of the organization, such as offering work-family policies, affect conclusions employees draw about the extent to which the organization values their life outside of work. Consistent with this idea, the availability of family-supportive policies is associated with benefits for the organization, such as increased employee commitment, job performance, and organizational citizenship behaviors (Grover & Crooker, 1995; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000). Employee benefits of family policies include reduced work-family conflict and job-related strain, and increased satisfaction with work-life balance (Butts et al., 2013; Ezra & Deckman, 1996; Goff et al., 1990).

Considerable variation remains in conclusions drawn from studies on the effects of work–family policies (Butts et al., 2013; Kossek et al., 2010). Several explanations for the inconsistency in findings exist. One that is pertinent to our study is that a policy may be available, but the informal environment may discourage actual usage of that policy, such as the previously mentioned example where a parent using a benefit of time off for child care may feel they are judged negatively for doing so. Employees should also perceive that their organization is actually supportive of family life for benefits to be optimally effective (Allen, 2001; Thompson et al., 1999).

Hypothesized Health Benefits of FSOP

Allen (2001) and other FSOP researchers have drawn from role theory and the conservation of resources (COR) model to explain the effects of FSOP. Role theory (e.g., Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), proposes that individuals can experience conflict when they must perform multiple life roles (e.g., employee, spouse, parent, caregiver), and when conflict occurs they are less able to perform those roles well. When performing multiple roles and having to draw from a limited amount of resources, coping with the conflicting demands can become more difficult and lead to negative outcomes for individuals.

COR theory (Hobfoll, 1989) can further explain cycles of resource gain and loss employees may experience as they manage work and family demands (Allen, 2001; Grandey & Cropanzano, 1999). COR proposes that individuals seek to obtain, maintain, and protect resources. Resources can include tangible objects like food or money as well as intangible resources such as personality characteristics, situational conditions, or energies. Hobfoll (1989) proposed that individuals will experience strain and further negative health outcomes when they have insufficient resources to cope with demands (Hobfoll, 1989).

Allen (2001) integrated role theory and COR, concluding that FSOP helps to reduce employee strain by acting as a resource for coping with conflicting work and family role demands. FSOP may also help employees to obtain, retain, and protect additional family related resources. For example, employees who might otherwise fear negative consequences of using formal work–family supports may feel comfortable utilizing family resources when they perceive the organization to be family supportive. FSOP may be a particularly important influence on health outcomes for individuals susceptible to high resource loss or challenges in resource recovery, such as those who face chronic work demands such as nonstandard shifts or those with dependent care responsibilities. Taken as a whole, research to date demonstrates the benefits of FSOP for employees, as it provides a resource for employees, demonstrating that the organization cares for them and respects their family life. Consistent with this view, we predict that FSOP will be related to better health and well-being.

Hypothesis 1: FSOP will be positively related to life satisfaction and negatively related to depression, musculoskeletal pain, and health symptoms.

Who Benefits From FSOP?

Moderating Effects of Family Characteristics

Family support from the organization may be more or less essential depending on employees' specific family demands and needs (Butts et al., 2013; Shockley & Allen, 2007). Research has found that employees with more children experience higher levels of strain and work–family conflict (e.g., Beutell & Wittig-Berman, 1999; Hammer, Allen, & Grigsby, 1997). Additional research has also shown that parental status and partner's employment status can moderate the relationship between work–family conflict and job attitudes (e.g., Wayne, Casper, Matthews, & Allen, 2013). Less is known about whether informal family support, namely FSOP, is differentially effective based on family characteristics.

In terms of organizational support for work–family balance, caring for a child or an elderly adult has been found to strengthen the relationship between work–family policies and FSOP (Cook, 2009). Further, perceptions of a supportive work–family culture may be more likely to translate into positive employee satisfaction and improved performance for workers with dependent care responsibilities (Mauno, Kinnunen, & Feldt, 2012; ten Brummelhuis & van der Lippe, 2010).

These studies highlight the importance of considering how family characteristics may influence the effectiveness of FSOP. Our study extends these findings by examining physical health and life satisfaction as outcomes, as well as differentiating those with dependent children from those caring for dependent adults. Providing care to a dependent adult is becoming more common as the elder population grows both in the U.S. and abroad (Kinsella & He, 2009; U.S. Census Bureau, 2011). Kossek et al. (2001) argued that caring for a dependent adult can be associated with very different responsibilities and affective experiences compared with caring for children; therefore, researchers should treat elder care and child care as separate phenomena. For example, we noted that spending more time caring for an adult (likely when the adult is not well) is likely a more negative experience than spending more time caring for a child.

A meta-analysis by Pinquart and Sorensen (2003) noted that those caring for an elder adult were more likely to experience depression, stress, and poor subjective well-being compared with noncaregivers. Compared with dependent child-care responsibilities, caring for dependent adults has been found to have unique effects on organizational attitudes and additive rather than interactive effects with child care on satisfaction (Buffardi, Smith, O'Brien, & Erdwins, 1999). Bernard and Phillips (2007) interviewed working individuals who also cared for an older adult, finding that formal policies for adult care were discussed as far less influential than informal support from their coworkers and supervisors. Further, an unsupportive work climate could exacerbate negative experiences of elder care (Kossek et al., 2001).

Because work–family conflict may be more common among employees with higher family demands, FSOP should be more beneficial for those employees, namely workers with dependent children or adults. As previously discussed in relation to COR theory (Hobfoll, 1989), employees with dependent responsibilities may experience greater resource loss from investing resources into both work and dependent care roles. Because humans are motivated to obtain, retain, and protect resources, those that feel con-

tinual threat of loss or actual resource loss from work–family conflict may look for resources such as FSOP to help replenish those lost or prevent further loss. Employees without dependents may not experience the same levels of experienced or threatened resource loss, and therefore have less need to utilize FSOP as a resource. Given the discussed distinctions between elder care and child care, we examined each type of dependent separately. The present study hypothesized that FSOP will have the strongest relationships with well-being and negative health outcomes for those with more child or adult dependents.

Hypothesis 2: The positive relationship of FSOP with life satisfaction and the negative relationship of FSOP with depression, musculoskeletal pain, and health symptoms will be stronger for workers with more dependent children relative to those who do not.

Hypothesis 3: The positive relationship of FSOP with life satisfaction and the negative relationship of FSOP with depression, musculoskeletal pain, and health symptoms will be stronger for workers providing care to dependent adults relative to those who do not.

Moderating Effects of Work Characteristics

Different scheduling patterns and working arrangements likely influence the demands employees experience in balancing work and family responsibilities; therefore, work schedules also may account for differences in outcomes of FSOP. Totterdell (2005) defined *shift workers* as those who regularly start or end their work outside of normal daytime hours of 7 a.m. to 7 p.m. Such nonstandard schedules are associated with a wide array of negative health and social outcomes (Smith, Folkard, Tucker, & Evans, 2011), which is concerning given that approximately one fifth of employees work shifts other than regular daytime hours (McMenamin, 2007). Employees who work on nonstandard shifts face challenges meeting nonwork demands because work interferes with opportunities to participate in normal family routines (Perrucci et al., 2007; Smith et al., 2011), and thus face higher work–family conflict (Barnett et al., 2008).

The present study examined how FSOP may benefit employees differently based on their usual shift and hours worked per week as moderating variables. To our knowledge, no previous work has considered differential effects of FSOP based on shift worked or hours worked per week. Prior evidence that nonstandard shift workers experience higher work–family conflict suggests that those on nonstandard shifts may benefit more from FSOP. Less research is available for predicting how hours worked per week will interact with the effects of FSOP. Cullen, Hammer, Neal, and Sinclair (2009) found that men in dual-earner couples responsible for both child care and elder care experienced higher work–family conflict when they had higher work demands, as indicated by hours worked per week. If workers employed more hours per week experience more work–family conflict, it is likely that those workers would also experience a greater benefit from FSOP.

Employees working either high work hours or on nonstandard shifts likely experience greater resource drain as a result of their schedule demands. Again, COR theory (Hobfoll, 1989) would propose that those with greater resource loss, or who feel a greater threat of resource loss, will seek to obtain resources to prevent

such loss. Therefore, we propose that those with high demands from either a nonstandard shift or long working hours will benefit more from FSOP, where FSOP will have a stronger relationship with health and life satisfaction for such workers.

Hypothesis 4: The positive relationship of FSOP with life satisfaction and the negative relationship of FSOP with depression, musculoskeletal pain, and health symptoms will be stronger for employees working on a nonstandard shift compared with those on a standard shift.

Hypothesis 5: The positive relationship of FSOP with life satisfaction and the negative relationship of FSOP with depression, musculoskeletal pain, and health symptoms will be stronger for employees working more hours per week compared with those working fewer hours per week.

Method

Participants and Procedures

The sample was composed of nurses from the Pacific Northwest region of the United States that were recruited as part of a larger program of research on nurses' retention and occupational health. Although some of the outcome data have been used in other work in progress, no other studies from this project have examined the family support or work schedule data that are central to this investigation. Participants were recruited through the region's professional nursing organization. Members of the research team visited several conferences sponsored by the association, in which they made announcements about the project or the team set up a booth where nurses could learn about the project directly. Information about the project was also included on the association's website and in postings in newsletters circulated among nurses in the state's Nurses Association. Interested participants could either provide their contact information in hard copy form or register at a project website (where they also provided basic work schedule and demographic information).

The main study consisted of two waves of survey data collection. Shortly after registering for the study participants were sent the baseline survey along with informed consent and participation incentive information. They were then sent the follow-up survey approximately nine months later. Although participants had the option of completing Web-based or paper and pencil surveys, nearly all (90%+) chose the Web-based version at each time point. Participants were given \$20 in compensation when Wave 1 surveys were received, and an additional \$10 if they also completed Wave 2. Several additional prizes of \$50 were raffled to participants at each time point. This process yielded 438 registered nurses who completed the baseline survey (65% of the total number of nurses invited to participate); 330 of whom completed a second survey approximately nine months later and, thus, could be matched across the two time points. These 330 nurses were the focal sample for the tests of family characteristics. For the tests of work shifts, we excluded 14 nurses who responded "other" for their usual shift worked, resulting in a final sample *N* of 316 for the schedule analyses. The project Web site (<http://onrp.webnode.com>) provides additional information about the study, the recruiting process, and the sample.

The matched sample was predominantly female (92%) and Caucasian (92%) with an average age of 45.7 ($SD = 11.1$). Most participants were married (69%), and the remaining were divorced or separated (12%), never married (9%), living with a significant other (8%), widowed (1%), or had a domestic partner (1%). The majority of the sample had either an associate's degree in nursing (32%) or a bachelor's degree in nursing (42%), and only 7% had Master's or Doctorate degrees in nursing or a related field. The nurses on average had 18 years of experience in nursing ($SD = 12.1$). Most participants worked in a hospital or acute care setting (88%). The participants came from a wide range of hospital units as well as hospital locations (e.g., rural, suburban, urban). The most common specialties included critical care/NICU (23%), general medicine/general surgical (21%), operating room/PACU (16%), maternal child/obstetrics (14%), and emergency/trauma (11.5%). Other specialties with smaller representations included pediatrics, behavioral health, psychiatry, women's health, end of life care, home health, school nurse, gerontology, and community or public health.

Results of independent samples t tests suggested there were no significant differences in demographic characteristics of gender ($t = .38, p > .05$), age ($t = -.48, p > .05$), ethnicity ($t = 1.20, p > .05$), or relationship status ($t = -.25, p > .05$) between those in the matched sample and those who only completed the Wave 1 survey. In addition, we conducted independent samples t tests to compare the two groups on the independent and moderator variables to address concerns that attrition may affect any observed relationships. We found no significant differences in FSOP ($t = -.23, p > .05$), number of children ($t = .86, p > .05$), typical shift ($t = .72, p > .05$), and hours worked per week ($t = 1.16, p > .05$). The only significant difference was that the average for dependent adults was slightly higher in the matched sample ($t = -1.65, p < .05$). In general, our sample seemed to be representative of the nurses' association members, except that the nurses in our sample tended to be somewhat older and have more work experience; however, we did not have access to specific data to test for statistical differences.

Data were not available to connect participants to a specific work unit to examine potential unit-level effects. However, we note that unit-level nesting is unlikely to be a significant concern in this study because there were relatively few cases of nurses from the same city and specialty. The majority of the nurses (69%) did not work the same shift in the same city and specialty as more than five other nurses in the sample. Some nurses (29%) did come from the same city, specialty, and typical shift as more than five other nurses. The largest number of participants from the same city, specialty, and typical shift was 16; however, these participants were unlikely to be members of the same unit because this particular city had multiple hospital systems, each of which had multiple hospitals. Given the low likelihood of problems related to nesting, all of the analyses presented are based on individual level data.

Measures

We used a prospective design for this study with family and schedule-related demographic variables provided by participants during the registration process, FSOP assessed during Wave 1, and the health and well-being outcomes assessed at Wave 2. Although not as strong as a complete longitudinal design with all predictors

and outcomes assessed at both time points, the prospective design helps strengthen the potential causal inferences drawn in this study by showing that the relationships of interest hold over time and by minimizing some of the method bias concerns associated with gathering all data at the same time. Commonly referenced method biases, such as measuring predictor and criterion measures at the same time point, at the same location, and using the same medium, may artificially inflate the relationships between constructs. Podsakoff, Mackenzie, Lee, and Podsakoff (2003) proposed that separating measurement occasions could serve as a potential remedy for such context effects.

FSOP. We assessed FSOP using five of 12 items from a scale developed by Allen (2001), which measured global perceptions of the organization as family supportive. Only five items were selected to minimize the survey length. Of the five items chosen, four were chosen because they were the highest loading items from Allen and one additional scale item judged relevant to our sample was added (i.e., "My organization believes that employees should keep their personal problems at home"). Items were rated on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items were "My organization believes that the most productive employees are those who put their work before their family life" and "My organization believes that work should be the primary priority in a person's life." All items were negatively worded, and therefore were reverse scored before forming an average scale score for analyses. The internal consistency for the five items was $\alpha = .91$. An exploratory factor analysis suggested one underlying factor for the five items, with all items loading higher than .75. A confirmatory factor analysis also indicated acceptable fit of a one-factor model, $\chi^2(5) = 23.6, p < .01$, root-mean-square error of approximation = .09, confidence interval [.06, .13], comparative fit index = .98, nonnormed fit index = .98, standardized root mean residual = .02.

Schedule variables. Schedule variables of interest included usual shift worked and hours worked per week. Participants were asked to indicate their primary shift from one of the following options: day shift, evening shift, night shift, or other. The majority of nurses indicated that they primarily worked day shifts (63%) with the rest divided between night (24%) and evening (13%) shifts. For data analysis, evening and night shift were combined as nonstandard work schedules compared with standard day shift. Participants reported actual hours worked per week on an open-ended item. Most participants were employed full-time (59%). The nurses reported working an average of 35 hr per week ($SD = 10.2$).

Family characteristics. Participants reported whether they provided care to any dependent adults, with response options of yes or no. Ten percent of the nurses reported providing care to a dependent adult or adults ($N = 34$). Participants also reported how many dependent children they provided care for, which we coded as zero, one, two, or three or more. The majority of nurses in our sample did not have any children (59%). Of those who did, 20% had one child, 12% had two, and 9% had three or more. Only 14 nurses had at least one child and provided care for a dependent adult.

Satisfaction With Life. This was assessed using the five-item Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), which has demonstrated strong criterion-related validity, sensitivity to life changes, and validity across diverse populations

(Kobau, Snizek, Zack, Lucas, & Burns, 2010; Pavot & Diener, 2008). Participants were asked to indicate the extent to which they agreed with each statement on a five-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items included "In most ways my life is close to my ideal" and "I am satisfied with my life." The internal consistency for this scale was $\alpha = .91$.

Depression. We assessed depression using the nine-item version of the Center for Epidemiologic Studies Depression Scale developed by Santor and Coyne (1997), which was shown to be an effective indicator of depression, using the most accurate items from the original 20-item scale while eliminating items that were redundant or less clearly connected with depression symptoms. Participants answered each item regarding how they felt in the past 30 days. Responses were on a four-point scale ranging from 1 (*rarely or none of the time*) to 4 (*all of the time*). Sample items included "You were bothered by things that usually do not bother you"; "You had trouble keeping your mind on what you were doing"; and "You felt depressed." The internal consistency for this scale was $\alpha = .87$.

Musculoskeletal pain. We assessed musculoskeletal pain with nine self-report items developed by Sinclair, Martin, and Sears (2010), who adapted a measure by Sauter et al. (2005). The original measure from Sauter et al. provided a picture of the human body and asked for pain ratings for several body parts. Sinclair et al. adapted this into a survey format to for easier administration. Participants were asked to rate their typical level of physical discomfort (pain, aching, stiffness, numbness, etc.) in reference to nine body parts (e.g., neck, back, knees) over the past 30 days. Response options were on a five-point scale ranging from 1 (*no pain*) to 5 (*worst pain ever in your life*). Reliability for this scale was $\alpha = .77$.

Health symptoms. We assessed health symptoms with six items from Spector and Jex's (1998) 18-item Physical Symptoms Inventory. Participants were asked to indicate how often they experienced any of the provided symptoms in the past 30 days. Response options were modified from the original scale to a five-point scale ranging from 1 (*never*) to 5 (*always*). Originally each symptom was rated as did not have the symptom, had the symptom and did not see a doctor, or had the symptom and did see a doctor; however, Spector and Jex noted that participants reported symptoms far more frequently than seeking medical treatment. Thus, we limited our scale to only the reporting of symptoms with

an expanded response scale for better understanding the frequency of symptoms. The symptom items included were "I had trouble sleeping"; "I had a headache"; "I felt sick to my stomach/had indigestion or heartburn"; "I had a cold or flu"; "I had back or muscle aches"; and "I had chest pain." These six items were chosen because they were judged to be most relevant to our sample. The symptoms reported were summed to generate a total score. Internal consistency is not reported for this scale because Spector and Jex argued the items are meant to be indicators of discrete health symptoms, and thus, internal consistency is not a meaningful measure of reliability.

Results

Descriptive statistics, correlations, and scale reliabilities among the variables of interest are displayed in Table 1. Examination of the correlations provided preliminary support for Hypothesis 1, that FSOP is related to health and life satisfaction. FSOP was positively correlated with life satisfaction ($r = .18, p < .01$) and negatively correlated with depression ($r = -.19, p < .01$), musculoskeletal pain ($r = -.22, p < .01$), and health symptoms ($r = -.25, p < .01$).

Prior to testing our hypotheses, we examined possible mean differences in FSOP in various subgroups. Means ratings of FSOP were compared between males and females and between those with and without adult dependents in two independent *t* tests. These tests revealed no significant differences. Two one-way analysis of variance used to examine differences in FSOP ratings based on number of dependent children and usual shift also revealed no significant differences. Last, two regression analyses used to determine if hours worked per week or age were related to differences in FSOP ratings were also nonsignificant. These analyses indicate that FSOP levels were generally the same across the various kinds of participants.

To test our hypotheses we conducted a series of hierarchical regressions in which we investigated the main effects of FSOP on health and well-being as well as the interactions of FSOP with family and schedule differences. Hypothesis 1 concerned the main effects of FSOP on the health and well-being outcomes after controlling for age, gender, family differences, and work schedules. To test this hypothesis we conducted a series of hierarchical

Table 1
Summary Descriptive Statistics, Intercorrelations, and Scale Reliabilities for Study Variables

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Gender	0.07	0.26	—										
2. Age	45.75	11.35	.02	—									
3. Dependent children	0.74	1.08	-.01	-.21**	—								
4. Dependent adults	0.09	0.29	.01	.07	-.02	—							
5. Shift	0.38	0.48	.11*	-.24**	.06	.02	—						
6. Hours per week	35.24	10.31	.12*	-.14**	.003	-.01	-.01	—					
7. FSOP	2.99	0.96	.03	.01	-.04	-.05	.09	-.04	(.91)				
8. Life satisfaction	5.08	1.23	.02	-.05	-.03	-.13*	-.07	-.07	.18**	(.91)			
9. Depression	1.75	0.50	-.02	-.12*	.06	.02	.04	.09	-.19**	-.54**	(.87)		
10. Musculoskeletal pain	1.68	0.47	.02	.13*	-.06	.13*	-.003	.07	-.22**	-.34**	.31**	(.77)	
11. Health symptoms	2.24	0.60	.02	-.11*	.06	.07	.08	.06	-.25**	-.41**	.58**	.58**	(.68)

Note. Gender coded as 0 = female, 1 = male. Dependent adults coded as 0 = no, 1 = yes. Shift coded as 0 = standard day, 1 = nonstandard evening or night. FSOP = family-supportive organization perceptions.

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

Table 2
Incremental Effects of Family-Supportive Organization Perceptions on Health and Well-Being Outcomes

Variable	Life satisfaction				Depression				Musculoskeletal pain				Health symptoms			
	<i>B</i>	<i>SE B</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	<i>R</i> ²	ΔR^2	<i>B</i>	<i>SE B</i>	<i>R</i> ²	ΔR^2
Step 1			.03	.03			.02	.02			.04*	.04			.02	.02
Age	-.01	.01			-.003	.003			.01**	.003			-.003	.003		
Gender	.16	.28			-.05	.11			-.06	.10			.02	.14		
Dependent children	-.06	.07			.04	.03			-.002	.03			.05	.04		
Dependent adults	-.52*	.24			.03	.10			.14	.09			.11	.12		
Shift	-.25	.15			.04	.06			.06	.06			.08	.08		
Hours per week	-.01	.01			.004	.003			.004	.003			.003	.003		
Step 2			.06**	.03**			.07**	.05**			.09**	.05**			.09**	.08**
Age	-.01	.01			-.003	.003			.01*	.002			-.003	.003		
Gender	.14	.27			-.04	.11			-.05	.10			.03	.13		
Dependent children	-.04	.07			.03	.03			-.01	.03			.03	.04		
Dependent adults	-.48*	.24			.01	.10			.12	.09			.07	.12		
Shift	-.29	.15			.06	.06			.08	.06			.12	.07		
Hours per week	-.01	.01			.003	.003			.004	.003			.002	.003		
FSOP	.22**	.07			-.12**	.03			-.11**	.03			-.19**	.04		

Note. *N* = 308 for analyses predicting life satisfaction and depression. *N* = 306 for analyses predicting musculoskeletal pain. *N* = 303 for analyses predicting health symptoms.

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

regression analyses testing the incremental effects of FSOP above and beyond all the other study variables (see Table 2). We found support for Hypothesis 1 for all of the outcomes. Specifically, FSOP was positively related to subsequent life satisfaction ($B = .22$, $p < .01$), such that nurses reporting higher FSOP reported higher life satisfaction nine months later. FSOP was negatively related to all other health outcomes reported nine months later. Increases in FSOP were associated with lower depression symptoms ($B = -.12$, $p < .01$), less musculoskeletal pain ($B = -.11$, $p < .01$), and fewer physical health symptoms ($B = -.19$, $p < .01$).

Hypotheses 2–5 concerned the interactive effects of FSOP with the family and schedule variables. To test these hypotheses, we conducted two additional sets of regression analyses for each outcome variable—one examining of the moderating effects of family characteristics and the other testing the moderating effects of the work schedule characteristics. In each case, we entered the control variables of age and gender on Step 1, the family or schedule variables on Step 2, FSOP on Step 3, and interaction terms reflecting FSOP $\times$ Family or FSOP $\times$ Work schedule effects on Step 4. We used this strategy to separate effects based on family differences from those based on schedule differences, while also avoiding potential issues with Type II error from entering all variables and interaction terms at once.¹ Tables 3–6 show the results of these analyses organized by outcome measure.

Hypothesis 2 concerned the moderating effects of FSOP on health and well-being based on whether participants had dependent children. We found support for conditional relationship of dependent children on the health outcomes reported nine months later, but not life satisfaction. The relationship between FSOP and depression was dependent on the number of children the worker had ($B = -.07$, $p < .05$; $\Delta R^2 = .02$). Further examination of the simple slopes revealed that FSOP had a significant negative relationship with depression symptoms for those with one child ($B = -.16$, $p < .05$) or three or more children ($B = -.27$, $p < .01$), and the relationship was negative but nonsignificant for

workers with no children or two children. This interaction is illustrated in Figure 1.

Having dependent children also moderated the relationship between FSOP and musculoskeletal pain ($B = -.06$, $p < .05$; $\Delta R^2 = .02$). Examination of the simple slopes revealed that the relationship between FSOP and musculoskeletal pain was significant for employees with two children ($B = -.26$, $p < .01$) or three or more children ($B = -.18$, $p < .05$), but was not significant for those with no children or one child. This interaction is depicted in Figure 2. Last, having dependent children affected the relationship between FSOP and health symptoms ($B = -.07$, $p < .05$; $\Delta R^2 = .01$) such that FSOP was associated with a reduction in health symptoms for those with children. Simple slopes indicated the strongest relationship between FSOP and health symptoms for those with three or more children ($B = -.31$, $p < .01$). The relationship was also significant for those with one child ($B = -.26$, $p < .01$) or two children ($B = -.21$, $p < .05$), but not for employees with no children. This interaction is shown in Figure 3.

Hypothesis 3 concerned the interactive effects of FSOP and dependent adults in relation to health and well-being. Support for the interaction was only found for predicting life satisfaction, but not health outcomes. Having a dependent adult moderated the relationship between FSOP and life satisfaction ($B = .63$, $p < .05$; $\Delta R^2 = .02$). Examination of the simple slopes revealed that increases in FSOP were more strongly related to life satisfaction for those who had dependent adults ($B = .71$, $p < .01$) compared with those without adult dependents ($B = .16$, $p < .05$). This interaction is illustrated in Figure 4.

¹ Interactions were also tested in a full model with all main effect and interactions included. When conducted in this manner, most all interactions discussed remained significant, except for the interaction between FSOP and dependent adults predicting life satisfaction. The interaction between FSOP and dependent children affecting musculoskeletal pain approached significance in the full model ($p = .053$).

Table 3
Effects of Family and Schedule Differences on Life Satisfaction

Variable	Life satisfaction							
	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Family-related predictors								
Age	-.004	.01	-.004	.01	-.003	.01	-.004	.01
Gender	.09	.27	.08	.26	.06	.26	.03	.26
Dependent children			-.04	.07	-.03	.07	.03	.07
Dependent adults			-.57*	.24	.53*	.23	-.44	.23
FSOP					.21**	.07	.13	.09
FSOP × Dependent children							.03	.07
FSOP × Dependent adults							.63*	.25
<i>R</i> ²	.002		.02		.05**		.07**	
ΔR^2	.002		.02		.03		.02	
ΔF	0.29		3.10*		8.59*		3.21*	
Schedule-related predictors								
Age	-.003	.01	-.01	.01	-.01	.01	-.01	.01
Gender	.09	.27	.17	.27	.15	.27	.10	.27
Shift			-.25	.15	-.30	.01	-.32*	.15
Hours per week			-.01	.01	-.01	.01	-.01	.01
FSOP					.25**	.07	-.31	.22
FSOP × Shift							.42**	.16
FSOP × Hours per week							.003	.01
<i>R</i> ²	.001		.01		.05**		.07**	
ΔR^2	.001		.01		.04		.02	
ΔF	0.19		2.10		11.50**		3.56*	

Note. *N* = 324 in family-related analyses. *N* = 314 in schedule-related analyses. FSOP = family-supportive organization perceptions.

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

Hypothesis 4 predicted that the relationship between FSOP and health and well-being outcomes would depend on shift. Support for the interaction was found for the relationship with life satisfaction, but not health outcomes. The relationship between FSOP and life satisfaction was moderated by shift ($B = .42$, $p < .01$; $\Delta R^2 = .02$). Examination of the simple slopes revealed a significant relationship between FSOP and life satisfaction for nonstandard shift workers ($B = .49$, $p < .01$), whereas the relationship was not significant for those on standard day shift. This interaction is displayed in Figure 5. Hypothesis 5 predicted that the relationship between FSOP and health and well-being would be influenced by hours worked per week; however, no support was found for this hypothesis for any of the outcome variables.

Discussion

Organizations vary in the extent to which they support employee efforts to manage family life, and research suggests that more family-supportive organizations may experience positive employee health outcomes without heavy financial investment. Research has noted that a family-supportive organization can improve job attitudes and reduce work-family conflict (e.g., Allen, 2001; Butts et al., 2013; Lauzun et al., 2012) and that informal work-family support is related to employee health and well-being outcomes (e.g., Hammer et al., 2011; Lapierre et al., 2008; Shockley & Allen, 2013). Our study extended this literature by examining the extent to which FSOP was directly related to occupational health outcomes, including depression, musculoskeletal pain, health symptoms, and life satisfaction. Further, given changing

demographics and family characteristics, as well as the growing presence of nontraditional working arrangements (Kinsella & He, 2009; McMenamin, 2007), we wanted to determine whether FSOP differentially affects employees based on work and family characteristics. Our results support that FSOP is related to employee health and well-being; however, the relationships depend on work and family characteristics.

Our study makes several important contributions. First, our results provide evidence that global FSOP is associated with benefits in employee health and life satisfaction. Specifically we found that FSOP was negatively related to depression, musculoskeletal pain, and health symptoms, and was positively related to life satisfaction. Our study is among the few which have begun to look at how FSOP may relate to life satisfaction, and the only to our knowledge that examines the relationship between global FSOP and health outcomes. These findings extend previous findings from studies such as Shockley and Allen (2013) and Hammer et al. (2011) concerning the health benefits of family-supportive supervision, as we demonstrated that global perceptions of the organization as family supportive were also related to both physical and mental health. These studies highlight that perceived informal support for family from supervisors and the organization as a whole may serve as valuable resources in helping employees maintain physical health and well-being. Given that supervisors play a critical role in implementing some, but not all, family-supportive practices, one important future research issue is to compare the relative effects of FSOP and family-supportive supervision on various health outcomes.

Table 4
Effects of Family and Schedule Differences on Depression Symptoms

Variable	Depression symptoms							
	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Family-related predictors								
Age	-.01*	.002	-.01	.003	-.01*	.003	-.004	.003
Gender	-.03	.11	-.03	.11	-.02	.11	-.03	.11
Dependent children			.02	.03	.01	.03	.02	.03
Dependent adults			.04	.10	.02	.09	.01	.10
FSOP					-.11**	.03	-.05	.04
FSOP × Dependent children							-.07*	.03
FSOP × Dependent adults							-.06	.10
<i>R</i> ²	.01		.02		.06**		.08**	
Δ <i>R</i> ²	.01		.002		.04		.02	
Δ <i>F</i>	2.06		0.37		14.96**		2.95†	
Schedule-related predictors								
Age	-.004	.003	-.003	.003	.003	.003	-.003	.003
Gender	.04	.11	-.06	.11	-.05	.11	-.05	.11
Shift			.04	.06	.07	.06	.07	.06
Hours per week			.003	.003	.003	.003	.003	.003
FSOP					-.11**	.03	-.08	.09
FSOP × Shift							-.02	.06
FSOP × Hours per week							.00	.003
<i>R</i> ²	.01		.02		.06**		.06*	
Δ <i>R</i> ²	.01		.01		.04		.00	
Δ <i>F</i>	1.57		0.89		13.89**		0.05	

Note. *N* = 324 in family-related analyses. *N* = 314 in schedule-related analyses. FSOP = family-supportive organization perceptions.

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

Second, our findings demonstrate that FSOP may not affect all employees equally. Relationships between FSOP and employee health and life satisfaction appeared to depend on the nature of employee care demands. Specifically, FSOP was negatively related to depression, musculoskeletal pain, and health symptoms for workers with dependent children (except those with two children in relation to depression), whereas the relationship was not significant for workers without dependent children. Our findings extend previous FSOP research (e.g., Cook, 2009; Wayne et al., 2013) that has found the relationship between FSOP and variables such as job attitudes and work-family conflict to depend on dependent responsibilities to also apply to health and life satisfaction. These findings highlight the practical need for organizations to consider what support is most relevant and needed based on employee family demands. One important direction for future research in this area is to study the intensity of child care demands, not simply the number of children as FSOP may be more important for those with younger children or who provide more of the child care to their children (such as single parents).

We also extended FSOP literature by showing differences in the relationship between FSOP and life satisfaction depending on whether participants provided care to any adult dependents. These findings reinforce other literature about the distinct outcomes of providing care to adult dependents (e.g., Kossek et al., 2001), a phenomenon that is likely to increase in importance as the population ages. It is interesting to note the differences in the pattern of findings for children compared with adult dependents. Although these findings may reflect the idea that child care is more impactful on ones' overall health and thus, in relationship to FSOP relation-

ships, it is also possible that the differences are attributable in part to the fact that a relatively small proportion of the sample provided dependent care. Moreover, less than 5% of the sample had both parent and child care demands. Thus, although the FSOP findings about adult dependent care are important, there are both methodological and substantive reasons to continue to study these effects in other samples. As with children, one important direction for future research may be to study the intensity of these parent care demands, not simply the number of people to whom the nurses provided care.

Last, in terms of schedule differences, FSOP was significantly related to life-satisfaction for nonstandard shift workers, but not standard day workers. Expected relationships with health outcomes were not found. Nonstandard workers may experience reduced life satisfaction because of schedules that may interfere with normal family routines, but perhaps they learn to cope with the schedule and family demands well enough that the impact on health outcomes is minimal. Past research has shown that nonstandard shift workers also tend to have greater struggles in balancing work and family demands (e.g., Barnett et al., 2008; Perrucci et al., 2007). Our findings show that informal support from the organization may be especially valuable for those workers with regard to their life satisfaction. It is important to note the organizational relevance of life satisfaction, in reference to the dependent adult and shift interactions, because life satisfaction has been found to correlate with job performance, organizational commitment, and turnover (Erdogan, Bauer, Truxillo, & Mansfield, 2012).

We did not find the hypothesized moderated relationships based on hours worked per week. Past research has found that long

Table 5
Effects of Family and Schedule Differences on Musculoskeletal Pain

Variable	Musculoskeletal pain							
	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Family-related predictors								
Age	.01*	.002	.01*	.002	.01*	.002	.01*	.002
Gender	-.03	.10	-.02	.10	-.01	.10	-.02	.10
Dependent children			-.01	.03	-.02	.03	-.02	.03
Dependent adults			.16	.09	.14	.09	.12	.09
FSOP					-.10**	.03	-.03	.03
FSOP × Dependent children							-.06*	.03
FSOP × Dependent adults							-.17	.09
<i>R</i> ²	.02*		.03*		.07**		.10**	
ΔR^2	.02		.01		.04		.03	
ΔF	3.36*		1.72		14.48**		4.73**	
Schedule-related predictors								
Age	.01*	.002	.01*	.002	.01*	.002	.01*	.002
Gender	.03	.10	.01	.10	.02	.10	.03	.10
Shift			.05	.06	.07	.06	.08	.06
Hours per week			.004	.003	.004	.003	.004	.003
FSOP					-.12**	.03	-.02	.08
FSOP × Shift							-.07	.06
FSOP × Hours per week							-.002	.003
<i>R</i> ²	.01		.02		.08**		.09**	
ΔR^2	.01		.01		.06		.01	
ΔF	2.27		1.30		19.29**		0.90	

Note. *N* = 322 in family-related analyses. *N* = 312 in schedule-related analyses.

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

working hours are associated with poor health among nurses (e.g., de Castro et al., 2010); however, the relationship between hours worked per week and health symptoms was not significant in our sample. This may be attributable to the fact that only a small percentage (15%) of our sample reported working more than 40 hr per week. This highlights the need for continued attention to possible effects of long work hours in subsequent studies.

It is interesting to note in regard to all of the discussed interactions, that there were no significant mean differences in FSOP perceptions based on family differences or schedule differences; however, the relationships between FSOP and health and well-being did differ based on those family and schedule characteristics. The lack of mean differences holds some very interesting implications that employees can perceive informal support very similarly, but the extent to which that support is helpful in enhancing health and well-being can vary substantially. These results highlight that examining only the overall effect of FSOP for a workforce may underestimate how critical FSOP is for some employees. Certain employee subgroups may benefit more from efforts to increase FSOP, a finding that has practical implications for determining the effectiveness of family-supportive interventions.

Assessments of formal policy offerings were not available in the present study; however, based on prior research evidence FSOP would likely be especially beneficial in conjunction with formal family-friendly initiatives. For companies that do not have any initiatives in place, O'Driscoll et al. (2003) noted that even a single intervention that fits well with employee needs could have positive effects. Companies should consider what best fits specific needs of

employees, potentially considering "cafeteria style" benefits where employees can choose benefits that are most useful (Butts et al., 2013). Choice in benefits could be especially important for shift workers with unique needs. Similarly, the needs of employees with dependent children may differ from those with dependent adults.

Limitations and Directions for Future Research

Our study did have a few limitations, which highlight potentially fruitful directions for future research. First, the study focused on registered nurses, a female-dominated occupation. It is possible that our findings might differ in male-dominated or gender diverse occupations. Further, nurses are professionally trained in providing some forms of care and these skills may spillover to facilitate their ability to care for family members, suggesting stronger effects might be possible in a non-care-oriented profession. Work schedules are a particularly salient concern for nursing and other employee samples that face different work schedule demands, and thus, warrant further examination in future research. For example, the effects of schedule-related demands may be stronger in jobs where schedules have a stronger relationship with work-family issues and health-related outcomes. Future research should examine these relationships in other occupations, especially those with nontraditional schedules likely to be associated with work-family conflict.

Second, although one of the strengths of our study was that we showed FSOP to predict health outcomes obtained nine months later, it is important to note that we did not have a fully longitudi-

Table 6
Effects of Family and Schedule Differences on Health Symptoms

Variable	Health symptoms							
	Model 1		Model 2		Model 3		Model 4	
	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>SE B</i>
Family-related predictors								
Age	-.01	.003	-.01	.003	-.01	.003	-.01	.003
Gender	.04	.13	.04	.13	.06	.13	.05	.12
Dependent children			.03	.04	.02	.03	.02	.03
Dependent adults			.14	.12	.10	.11	.06	.12
FSOP					-.17**	.03	-.09*	.05
FSOP × Dependent children							-.07*	.03
FSOP × Dependent adults							-.18	.12
<i>R</i> ²	.01		.02		.09**		.11**	
ΔR^2	.01		.01		.07		.02	
ΔF	1.64		1.0		24.96**		3.52*	
Schedule-related predictors								
Age	-.01	.003	-.004	.003	-.004	.003	-.004	.003
Gender	.07	.13	.05	.13	.06	.13	.07	.13
Shift			.09	.07	.12	.07	.13	.07
Hours per week			.002	.003	.002	.003	.002	.003
FSOP					-.18**	.04	-.10	.11
FSOP × Shift							-.06	.08
FSOP × Hours per week							-.01	.004
<i>R</i> ²	.01		.02		.10**		.11**	
ΔR^2	.01				.08		.01	
ΔF	1.75				26.71**		1.58	

Note. *N* = 319 in family-related analyses. *N* = 309 in schedule-related analyses.

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

dinal design, with FSOP and health outcomes measured at both times. Thus, we cannot eliminate the possibility that other variables could have influenced the reports of health and well-being outcomes or that those variables did not change between the two waves of data collection. Assessing our health outcomes at a later time point does reduce potential concerns with artificial relationships associated with collecting all data at one time period (e.g., Podsakoff et al., 2003). This method further provides a more conservative test of the hypothesized relationships by examining health outcomes nine months later rather than using cross-sectional data. We would recommend that future research use fully longitudinal designs when possible to better discern whether the health outcomes changed as a function of FSOP. Specifically, longitudi-

nal research that could capture the implementation or enhancement of informal or formal work-family support efforts and effects on health outcomes over time would be exceptionally valuable.

Third, our study used several shortened measures, which may not capture the relative content domains as well as using longer measures. However, using a smaller number of items would likely lead to underestimates of the observed relationships, rather than inflations. As a specific concern, our study used a shortened version of Allen's (2001) measure of FSOP. We used items that either had the highest factor analytic loadings in Allen or that we judged most relevant to our sample. However, this resulted in using only items that were negatively worded, which can be associated with various response biases (e.g., Hinkin, 1995). The

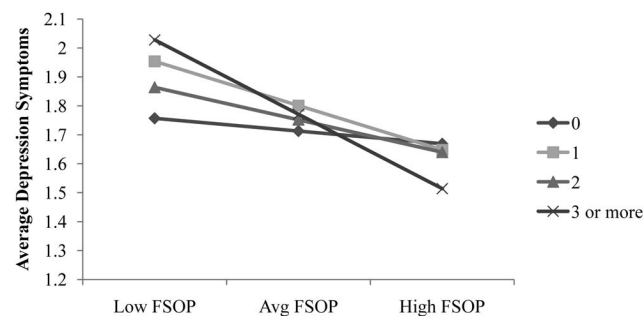


Figure 1. Effect of the interaction between family-supportive organization perceptions (FSOP) and dependent children on depression symptoms. Avg = average.

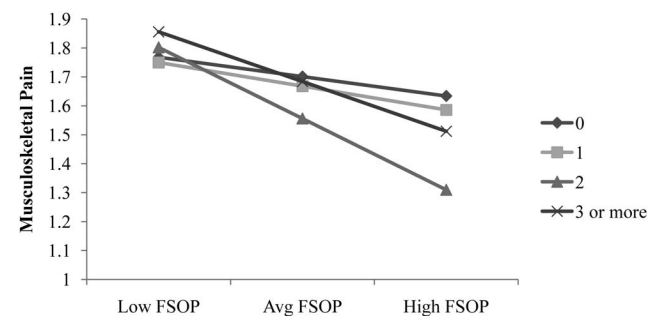


Figure 2. Effect of the interaction between family-supportive organization perceptions (FSOP) and dependent children on musculoskeletal pain. Avg = average.

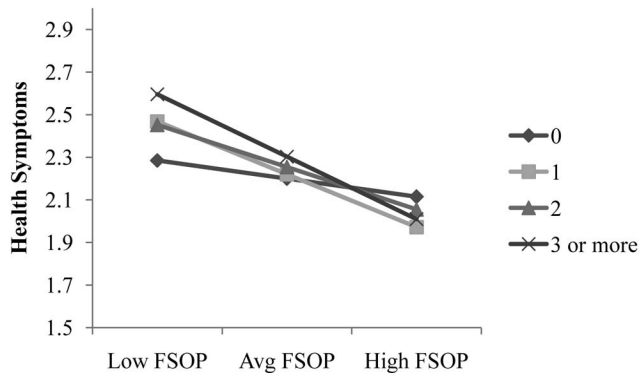


Figure 3. Effect of the interaction between family-supportive organization perceptions (FSOP) and dependent children on health symptoms. Avg = average.

measure demonstrated high reliability and unidimensionality in our sample; however, we encourage future researchers to examine the relationships found in our study using the full FSOP measure which includes both positively and negatively worded items.

Last, it is important to note that participants self-selected into our study. Our sample was composed of many older, experienced nurses who had likely learned to cope with work–family demands whereas younger, early career nurses who may experience more work–family conflict (because they have young children) were undersampled. However, using an older sample of nurses, for whom FSOP may have weaker effects, provides a more conservative test of the hypothesized relationships. Future research should seek to capture workers of various ages with varying family situations. We do encourage researchers in future research to distinguish between adult and child care demands, and also consider the benefits of FSOP for employees with both adult and child dependents. Our study had very few “sandwiched” participants with both dependent children and dependent adults, but those individuals may experience even greater work–family conflict and benefit from additional support.

As a final recommendation, future research should further investigate the mechanisms by which FSOP benefits employee health and well-being. We theorized that FSOP works as a valuable resource using the frame of COR theory (Hobfoll, 1989).

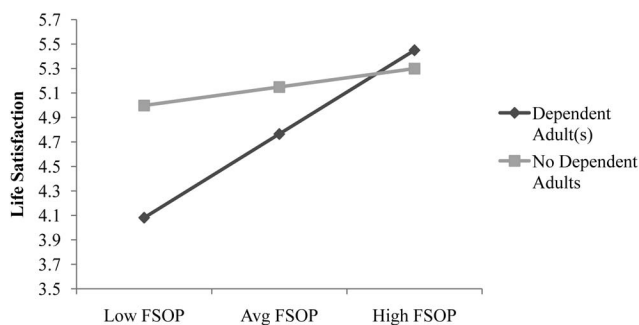


Figure 4. The effect of the interaction between family-supportive organization perceptions (FSOP) and dependent adults on life satisfaction. Avg = average.

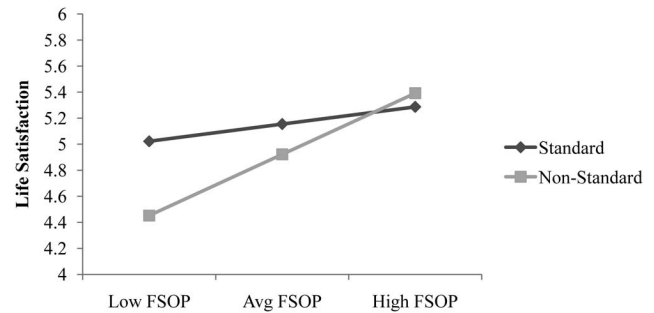


Figure 5. The effect of the interaction between family-supportive organization perceptions (FSOP) and shift on life satisfaction. Avg = average.

Although it was beyond the scope of our study, future researchers could examine how FSOP relates to resource loss associated with work–family conflict or resource gain associated with work–family enrichment and health outcomes over time to test this theoretical application. Wayne et al. (2013) found that FSOP influenced commitment through work–family conflict, work–family enrichment, and partner attitudes. Odle-Dusseau, Britt, and Greene-Shorridge (2012) also found work–family enrichment, but not work–family conflict, to mediate relationships between supervisor family support and job attitudes and supervisor rated job performance. In addition, Matthews, Mills, Trout, and English (2014) found evidence that work engagement may mediate relationships between family-supportive supervisors behaviors and subjective well-being. These variables of work–family conflict, work–family enrichment, and engagement would be promising mediators of the effect of FSOP on health and well-being outcomes to be considered in future research.

Conclusion

Organizations should be encouraged to create cultures where employees and their families are valued, as it may not only affect worker attitudes and commitment, but also worker health and life satisfaction. However, organizations should recognize the variation in employee needs and provide appropriate support based on family circumstances and work schedules. Future research should continue to investigate how organizations can best help employees cope with work and family demands, and determine who is in the greatest need of support.

References

- Allen, T. D. (2001). Family-supportive work environments: The role of organizational perceptions. *Journal of Vocational Behavior*, 58, 414–435. <http://dx.doi.org/10.1006/jvbe.2000.1774>
- Allen, T. D., & Armstrong, J. (2006). Further examination of the link between work–family conflict and physical health the role of health-related behaviors. *American Behavioral Scientist*, 49, 1204–1221. <http://dx.doi.org/10.1177/0002764206286386>
- Barnett, R. C., Gareis, K. C., & Brennan, R. T. (2008). Wives' shift work schedules and husbands' and wives' well-being in dual-earner couples with children: A within-couple analysis. *Journal of Family Issues*, 29, 396–422. <http://dx.doi.org/10.1177/0192513X07305346>
- Bernard, M., & Phillips, J. E. (2007). Working careers of older adults: What helps and what hinders in juggling work and care? *Community*,

- Work & Family*, 10, 139–160. <http://dx.doi.org/10.1080/13668800701270075>
- Beutell, N. J., & Wittig-Berman, U. (1999). Predictors of work–family conflict and satisfaction with family, job, career, and life. *Psychological Reports*, 85, 893–903. <http://dx.doi.org/10.2466/pr0.1999.85.3.893>
- Brooks, B. A., & Anderson, M. A. (2004). Nursing work life in acute care. *Journal of Nursing Care Quality*, 19, 269–275. <http://dx.doi.org/10.1097/00001786-200407000-00014>
- Buffardi, L. C., Smith, J. L., O'Brien, A. S., & Erdwins, C. J. (1999). The impact of dependent-care responsibility and gender on work attitudes. *Journal of Occupational Health Psychology*, 4, 356–367. <http://dx.doi.org/10.1037/1076-8998.4.4.356>
- Butts, M. M., Casper, W. J., & Yang, T. S. (2013). How important are work–family support policies? A meta-analytic investigation of their effects on employee outcomes. *Journal of Applied Psychology*, 98, 1–25. <http://dx.doi.org/10.1037/a0030389>
- Casper, W. J., & Harris, C. M. (2008). Work-life benefits and organizational attachment: Self-interest utility and signaling theory models. *Journal of Vocational Behavior*, 72, 95–109. <http://dx.doi.org/10.1016/j.jvb.2007.10.015>
- Cook, A. (2009). Connecting work–family policies to supportive work environments. *Group & Organization Management*, 34, 206–240. <http://dx.doi.org/10.1177/1059601108330091>
- Cullen, J. C., Hammer, L. B., Neal, M. B., & Sinclair, R. R. (2009). Development of a typology of dual-earner couples caring for children and aging parents. *Journal of Family Issues*, 30, 458–483. <http://dx.doi.org/10.1177/0192513X08326003>
- de Castro, A. B., Fujishiro, K., Rue, T., Tagalog, E. A., Samaco-Paquiz, L. P. G., & Gee, G. C. (2010). Associations between work schedule characteristics and occupational injury and illness. *International Nursing Review*, 57, 188–194. <http://dx.doi.org/10.1111/j.1466-7657.2009.00793.x>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49, 71–75. http://dx.doi.org/10.1207/s15327752jpa4901_13
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500–507. <http://dx.doi.org/10.1037/0021-9010.71.3.500>
- Erdogan, B., Bauer, T. N., Truxillo, D. M., & Mansfield, L. R. (2012). Whistle while you work: A review of the life satisfaction literature. *Journal of Management*, 38, 1038–1083. <http://dx.doi.org/10.1177/0149206311429379>
- Ezra, M., & Deckman, M. (1996). Balancing work and family responsibilities: Flextime and child care in the federal government. *Public Administration Review*, 56, 174–179. <http://dx.doi.org/10.2307/977205>
- Frone, M. R., Russell, M., & Cooper, M. L. (1997). Relation of work–family conflict to health outcomes: A four-year longitudinal study of employed parents. *Journal of Occupational and Organizational Psychology*, 70, 325–335. <http://dx.doi.org/10.1111/j.2044-8325.1997.tb00652.x>
- Goff, S. J., Mount, M. K., & Jamison, R. L. (1990). Employer supported child care, work/family conflict, and absenteeism: A field study. *Personnel Psychology*, 43, 793–809. <http://dx.doi.org/10.1111/j.1744-6570.1990.tb00683.x>
- Grandey, A. A., & Cropanzano, R. (1999). The conservation of resources model applied to work–family conflict and strain. *Journal of Vocational Behavior*, 54, 350–370. <http://dx.doi.org/10.1006/jvbe.1998.1666>
- Grover, S. L., & Crooker, K. J. (1995). Who appreciates family-responsive human resource policies: The impact of family-friendly policies on the organizational attachment of parents and non-parents. *Personnel Psychology*, 48, 271–288. <http://dx.doi.org/10.1111/j.1744-6570.1995.tb01757.x>
- Haar, J. M., & Roche, M. A. (2010). Family supportive organization perceptions and employee outcomes: The mediating effects of life satisfaction. *The International Journal of Human Resource Management*, 21, 999–1014. <http://dx.doi.org/10.1080/09585191003783462>
- Hammer, L. B., Allen, E., & Grigsby, T. D. (1997). Work–family conflict in dual-earner couples: Within-individual and crossover effects of work and family. *Journal of Vocational Behavior*, 50, 185–203. <http://dx.doi.org/10.1006/jvbe.1996.1557>
- 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, 134–150. <http://dx.doi.org/10.1037/a0020927>
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21, 967–988. <http://dx.doi.org/10.1177/014920639502100509>
- Hobfoll, S. E. (1989). Conservation of resources. A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524. <http://dx.doi.org/10.1037/0003-066X.44.3.513>
- Hughes, D. L., & Galinsky, E. (1994). Gender, job and family conditions, and psychological symptoms. *Psychology of Women Quarterly*, 18, 251–270. <http://dx.doi.org/10.1111/j.1471-6402.1994.tb00454.x>
- Kahn, R. L., Wolfe, D. M., Quinn, R., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress*. New York, NY: Wiley.
- Kinsella, K., & He, W. (2009). *An aging world: 2008*. Washington, DC: National Institute on Aging and U.S. Census Bureau. Retrieved from <https://www.census.gov/prod/2009pubs/p95-09-1.pdf>
- Kirby, E. L., & Krone, K. J. (2002). “The policy exists but you can’t really use it”: Communication and the structuration of work–family policies. *Journal of Applied Communication Research*, 30, 50–77. <http://dx.doi.org/10.1080/00909880216577>
- Kobau, R., Snizek, J., Zack, M. M., Lucas, R. E., & Burns, A. (2010). Well-being assessment: An evaluation of well-being scales for public health and population estimates of well-being among U.S. adults. *Applied Psychology: Health and Well-Being*, 2, 272–297. <http://dx.doi.org/10.1111/j.1758-0854.2010.01035.x>
- Konrad, A. M., & Mangel, R. (2000). The impact of work-life programs on firm productivity. *Strategic Management Journal*, 21, 1225–1237. [http://dx.doi.org/10.1002/1097-0266\(200012\)21:12<1225::AID-SMJ135>3.0.CO;2-3](http://dx.doi.org/10.1002/1097-0266(200012)21:12<1225::AID-SMJ135>3.0.CO;2-3)
- 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, 29–44. <http://dx.doi.org/10.2307/3069335>
- Kossek, E. E., Lewis, S., & Hammer, L. B. (2010). Work–life initiatives and organizational change: Overcoming mixed messages to move from the margin to the mainstream. *Human Relations*, 63, 3–19. <http://dx.doi.org/10.1177/0018726709352385>
- 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, 289–313. <http://dx.doi.org/10.1111/j.1744-6570.2011.01211.x>
- Lapierre, L. M., Spector, P. E., Allen, T. D., Poelmans, S., Cooper, C. L., O'Driscoll, M. P., . . . Kinnunen, U. (2008). Family-supportive organization perceptions, multiple dimensions of work–family conflict, and employee satisfaction: A test of model across five samples. *Journal of Vocational Behavior*, 73, 92–106. <http://dx.doi.org/10.1016/j.jvb.2008.02.001>
- Lauzun, H. M., Major, D. A., & Jones, M. P. (2012). Employing a conservation of resources framework to examine the interactive effects of work domain support and economic impact on work–family conflict. *The Psychologist-Manager Journal*, 15, 25–36. <http://dx.doi.org/10.1080/10887156.2012.649091>

- MacEwen, K. E., & Barling, J. (1994). Daily consequences of work interference with family and family interference with work. *Work & Stress*, 8, 244–254. <http://dx.doi.org/10.1080/02678379408259996>
- Matthews, R. A., Mills, M. J., Trout, R. C., & English, L. (2014). Family-supportive supervisor behaviors, work engagement, and subjective well-being: A contextually dependent mediated process. *Journal of Occupational Health Psychology*, 19, 168–181. <http://dx.doi.org/10.1037/a0036012>
- Mauno, S., Kinnunen, U., & Feldt, T. (2012). Work–family culture and job satisfaction: Does gender and parenting status alter the relationship? *Community, Work & Family*, 15, 101–129. <http://dx.doi.org/10.1080/13668803.2011.598733>
- Mauno, S., Kinnunen, U., & Pykkö, M. (2005). Does work–family conflict mediate the relationship between work–family culture and self-reported distress? Evidence from five Finnish organizations. *Journal of Occupational and Organizational Psychology*, 78, 509–530. <http://dx.doi.org/10.1348/096317905X37082>
- McMenamin, T. M. (2007). A time to work: Recent trends in shift work and flexible schedules. *Monthly Labor Review*, 130, 3–15. Retrieved from <http://www.bls.gov/opub/mlr/2007/12/mlr200712.pdf>
- Odle-Dusseau, H. N., Britt, T. W., & Greene-Shortridge, T. M. (2012). Organizational work–family resources as predictors of job performance and attitudes: The process of work–family conflict and enrichment. *Journal of Occupational Health Psychology*, 17, 28–40. <http://dx.doi.org/10.1037/a0026428>
- O'Driscoll, M. P., Brough, P., & Kalliath, T. J. (2004). Work/family conflict, psychological well-being, satisfaction and social support: A longitudinal study in New Zealand. *Equal Opportunities International*, 23, 36–56. <http://dx.doi.org/10.1108/02610150410787846>
- O'Driscoll, M. P., Poelmans, S., Spector, P. E., Kalliath, T., Allen, T. D., Cooper, C. L., & Sanchez, J. I. (2003). Family-responsive interventions, perceived organizational and supervisor support, work–family conflict, and psychological strain. *International Journal of Stress Management*, 10, 326–344. <http://dx.doi.org/10.1037/1072-5245.10.4.326>
- Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. *The Journal of Positive Psychology*, 3, 137–152. <http://dx.doi.org/10.1080/17439760701756946>
- Perrucci, R., MacDermid, S., King, E., Tang, C., Brimeyer, T., Ramadoss, K., . . . Swanberg, J. (2007). The significance of shift work: Current status and future directions. *Journal of Family and Economic Issues*, 28, 600–617. <http://dx.doi.org/10.1007/s10834-007-9078-3>
- Perry-Smith, J. E., & Blum, T. C. (2000). Work–family human resource bundles and perceived organizational performance. *Academy of Management Journal*, 43, 1107–1117. <http://dx.doi.org/10.2307/1556339>
- Pinquart, M., & Sörensen, S. (2003). Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. *Psychology and Aging*, 18, 250–267. <http://dx.doi.org/10.1037/0882-7974.18.2.250>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & 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>
- Santor, D. A., & Coyne, J. C. (1997). Shortening the CES-D to improve its ability to detect cases of depression. *Psychological Assessment*, 9, 233–243. <http://dx.doi.org/10.1037/1040-3590.9.3.233>
- Sauter, S. L., Swanson, N. G., Waters, T., Hales, T., & Dunkin-Chadwick, R. (2005). Musculoskeletal discomfort surveys used at NIOSH. In N. Stanton, A. Hedge, K. Brookhuis, E. Salas, & H. Hendrick (Eds.), *Handbook of human factors and ergonomic methods* (pp. 1–10). Boca Raton, FL: CRC Press.
- Shockley, K. M., & Allen, T. D. (2007). When flexibility helps: Another look at the availability of flexible work arrangements and work–family conflict. *Journal of Vocational Behavior*, 71, 479–493. <http://dx.doi.org/10.1016/j.jvb.2007.08.006>
- Shockley, K. M., & Allen, T. D. (2013). Episodic work–family conflict, cardiovascular indicators, and social support: An experience sampling approach. *Journal of Occupational Health Psychology*, 18, 262–275. <http://dx.doi.org/10.1037/a0033137>
- Sinclair, R. R., Martin, J. E., & Sears, L. E. (2010). Labor unions and safety climate: Perceived union safety values and retail employee safety outcomes. *Accident Analysis & Prevention*, 42, 1477–1487. <http://dx.doi.org/10.1016/j.aap.2009.11.003>
- Smith, C. S., Folkard, S., Tucker, P., & Evans, M. S. (2011). Work schedules, health, and safety. In J. A. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 185–204). Washington, DC: American Psychological Association.
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal Conflict at Work Scale, Organizational Constraints Scale, Quantitative Workload Inventory, and Physical Symptoms Inventory. *Journal of Occupational Health Psychology*, 3, 356–367. <http://dx.doi.org/10.1037/1076-8998.3.4.356>
- Spence, A. (1973). Job market signaling. *The Quarterly Journal of Economics*, 87, 355–379. <http://dx.doi.org/10.2307/1882010>
- ten Brummelhuis, L. L., & van der Lippe, T. (2010). Effective work-life balance support for various household structures. *Human Resource Management*, 49, 173–193. <http://dx.doi.org/10.1002/hrm.20340>
- 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, 392–415. <http://dx.doi.org/10.1006/jvbe.1998.1681>
- Thompson, C. A., Jahn, E. W., Kopelman, R. E., & Protas, D. J. (2004). Perceived organizational family support: A longitudinal and multilevel analysis. *Journal of Managerial Issues*, 16, 545–565.
- Totterdell, P. (2005). Work schedules. In J. Barling, E. Kelloway, & M. Frone (Eds.), *Handbook of work stress* (pp. 35–62). Thousand Oaks, CA: Sage. <http://dx.doi.org/10.4135/9781412975995.n3>
- Treiber, L. A., & Davis, S. N. (2012). The role of “workplace family” support on worker health, exhaustion and pain. *Community, Work & Family*, 15, 1–27. <http://dx.doi.org/10.1080/13668803.2011.580123>
- U.S. Census Bureau. (2011). Age and sex composition: 2010. *2010 Census Briefs*. Washington, DC: Author. Retrieved from <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>
- Voydanoff, P. (2005). Consequences of boundary-spanning demands and resources for work-to-family conflict and perceived stress. *Journal of Occupational Health Psychology*, 10, 491–503. <http://dx.doi.org/10.1037/1076-8998.10.4.491>
- Wang, M., Liu, S., Zhan, Y., & Shi, J. (2010). Daily work–family conflict and alcohol use: Testing the cross-level moderation effects of peer drinking norms and social support. *Journal of Applied Psychology*, 95, 377–386. <http://dx.doi.org/10.1037/a0018138>
- Wayne, J. H., Casper, W. J., Matthews, R. A., & Allen, T. D. (2013). Family-supportive organization perceptions and organizational commitment: The mediating role of work–family conflict and enrichment and partner attitudes. *Journal of Applied Psychology*, 98, 606–622. <http://dx.doi.org/10.1037/a0032491>

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