

The Influence of Family-Supportive Supervisor Training on Employee Job Performance and Attitudes: An Organizational Work–Family Intervention

Heather N. Odle-Dusseau
Gettysburg College

Leslie B. Hammer
Portland State University

Tori L. Crain
Colorado State University

Todd E. Bodner
Portland State University

Training supervisors to increase their family-supportive supervisor behaviors (FSSB) has demonstrated significant benefits for employee physical health, job satisfaction, and turnover intentions among employees with high levels of family-to-work conflict in prior research in a grocery store context. We replicate and extend these results in a health care setting with additional important employee outcomes (i.e., employee engagement, organizational commitment, and supervisor ratings of job performance), and consider the role of the 4 dimensions underlying the FSSB. Using a quasi-experimental, pretest–posttest design, 143 health care employees completed surveys at 2 time periods approximately 10 months apart, along with their supervisors who provided ratings of employees' job performance. Between these surveys, we offered their supervisors FSSB training; 86 (71%) of these supervisors participated. Results demonstrated significant and beneficial indirect effects of FSSB training on changes in employee job performance, organizational commitment, engagement, job satisfaction, and turnover intentions through changes in employee perceptions of their supervisor's overall FSSBs. Further analyses suggest that these indirect effects are due primarily to changes in the creative work–family management dimension of FSSB.

Keywords: organizational intervention, family-supportive supervisors, job performance, work–family

In their recent work–family intervention study, [Hammer, Kosssek, Anger, Bodner, and Zimmerman \(2011\)](#) demonstrated beneficial effects of a supervisor-level training intervention aimed at increasing family-supportive supervisor behaviors (FSSB). Hammer and colleagues called for future work–family initiatives aimed at increasing FSSB to be linked with other work and family outcomes. They also recommended expanding to other occupational groups beyond low-wage grocery workers, ultimately leading to increased generalizability of the training. Although several additional studies have been published or are in press since that time that include the FSSB training as part of the intervention ([Davis et al., 2015](#); [Hammer, Truxillo, et al., 2015](#); [Kelly et al., 2014](#); [Olson et al., 2015](#)), none of these studies have examined workplace outcomes, have been conducted in a health care environment, or have examined the differential effects of the FSSB subdimensions. With these gaps in mind, the current study was

developed to carry out a training workshop for supervisors on family-supportive behaviors, modeled after [Hammer et al.'s \(2011\)](#) intervention.

[Hammer et al. \(2011\)](#) found that one month after supervisors participated in training sessions that were aimed at increasing family-supportive behaviors, the supervisors' employees who experienced high levels of family-to-work conflict (FWC) reported decreased intentions to leave, higher job satisfaction, and improved physical health symptoms after the training. We specifically wanted to explore the effects of this training beyond job satisfaction and turnover intentions to other workplace outcomes through the measurement of the intervention's effects on organizational commitment, employee engagement, and supervisor ratings of job performance. A second goal of this study was to generalize the findings of the supervisor training intervention's effectiveness to a new sample and occupational group, namely, health care workers. Recent research that has examined FSSB as part of a larger intervention process has focused on information technology professional workers (i.e., [Davis et al., 2015](#); [Kelly et al., 2014](#); [Olson et al., 2015](#)) and construction workers ([Hammer, Truxillo, et al., 2015](#)). Yet none of this research has focused on this very important and large sector of our workforce that tends to be at higher risk for health and safety hazards than most other occupational groups ([National Institute for Occupational Health and Safety, 2013](#)). We also wanted to add to the very limited research available on work–family intervention effectiveness, an area clearly in need of studies using rigorous experimental or quasi-

This article was published Online First December 14, 2015.

Heather N. Odle-Dusseau, Department of Management, Gettysburg College; Leslie B. Hammer, Department of Psychology, Portland State University; Tori L. Crain, Department of Psychology, Colorado State University; Todd E. Bodner, Department of Psychology, Portland State University.

Correspondence concerning this article should be addressed to Heather N. Odle-Dusseau, Department of Management, 300 North Washington Street, Box 395, Gettysburg College, Gettysburg, PA 17325. E-mail: hodle@gettysburg.edu

experimental designs (Hammer, Demsky, Kossek & Bray, 2015). Finally, we wanted to examine the potential for differential impacts of FSSB subdimensions in order to advance theoretical understanding of FSSB as a construct, as well as to harness the practical implications of differential effects. Thus we used a quasi-experimental, pretest–posttest design with the objective of extending evidence of the beneficial effects of a family-supportive behavioral initiative to other workplace outcomes and a new occupational group.

Theoretical Rationale for a Work–Family Initiative

Theoretically, we turn to the conceptual model proposed by Kelly et al. (2008), where work–family initiatives are proposed to influence employees' perceptions of the psychosocial work environment, which in turn can decrease work–family conflict, increase work–family enrichment, and improve individual- and organizational-level outcomes. Kelly et al. (2008) also emphasized the importance of assessing employees' perceptions of support evaluating a work–life initiative. Rooted in this rationale, a work–family initiative aimed when at increasing the family-supportive behaviors of supervisors stands to influence employees' perceptions of their environments. If employees perceive an increase in FSSB, then based on Kelly et al.'s (2008) model, these perceptions should subsequently impact the job attitudes and job performance of employees whose supervisors participate in such a work–family initiative.

In practice, work–life initiatives can be in the form of formal policies, as well as informal, cultural forms of support (Kossek, Lewis, and Hammer, 2010) that incorporate multiple levels within the organization. The integration of these systems, according to Kossek and colleagues, is critical for work–life initiatives to be successful. There are three categories of work–family initiatives outlined by Kelly et al. (2008), which include those with the goal of fostering support (e.g., child care referrals), those that increase control over work time (e.g., telework policies), and those that allow better management of workload (e.g., part-time work). The FSSB training developed by Hammer et al. (2011), and used as the basis for the current study, mirrors Kelly et al.'s (2008) category of a work–life initiative with the goal of fostering support because it influences the level of behavioral support that supervisors can provide their employees. Additionally, an important component of Kelly et al.'s (2008) model is the inclusion of organizational outcomes such as productivity and individual outcomes such as job satisfaction, organizational commitment, and turnover intentions.

Expanding Organizational Intervention Effects: FSSB Training

When links are observed among organizational factors and detriments to health and well-being, a common approach is to attempt to improve those environments, often through organizational or workplace initiatives. Indeed, there has been an increase in studies conducted with occupational initiatives and assessments of their effectiveness seen in peer-reviewed journal articles (e.g., Scharf et al., 2008). However, according to Noblet and LaMontagne (2008), a large proportion of intervention research programs are not designed in a way that incorporates comprehensive needs of employees, nor do they consider evaluation of process and the part

that context plays. More simply stated, “There is a clear need to improve the manner in which employee well-being initiatives are evaluated” (Noblet & LaMontagne, 2008, p. 468). Given there are few work–family supports at the national level in the United States, reliance on workplace work–family policies and programs has been more common (Kelly & Kalev, 2006). With very recent exception (i.e., Kelly et al., 2014), most existing evaluation evidence is cross-sectional, correlational-based, and thus, limited experimental research exists on the actual effectiveness of such work–family policies, programs, and trainings, which scientifically can be referred to as interventions. A review by Brough and O'Driscoll (2010) identified 15 work–family intervention studies; however upon close inspection, some of the studies cited were review articles and not actual intervention studies (Hammer, Demsky, Kossek, & Bray, 2015).

Taking this into account, we included multiple evaluative measures, while also extending beyond the outcomes already established by Hammer et al. (2011). As a result, both psychosocial aspects and measures of organizational effectiveness were included. This reflects the recommendations of Kossek et al. (2010), who proposed that one way to better facilitate the integration of work–life programs is to combine them with broader organizational strategies, by incorporating psychosocial reports from employees in conjunction with measures of organizational effectiveness, such as employee engagement and job performance. Similarly, Tetrick, Quick, and Gilmore (2012), among many occupational health researchers, have noted the importance of modification of the psychosocial environment during organizational interventions to promote well-being in both employees and their organizations.

Thus we chose to measure employee job attitudes that have been linked with FSSB in past research—job satisfaction, organizational commitment, turnover intentions, and employee engagement—in response to the supervisor training. Theoretically, establishing relationships among these outcomes and FSSB training broadens the beneficial effects beyond those outcomes measured by Hammer et al. (2011). Given that Hammer et al. (2011) found positive effects of training, and past correlational research linking perceptions of FSSB to organizationally desirable outcomes across time, we would expect that a work–family initiative aimed at increasing FSSB would also have positive, increasing effects on organizational commitment, employee engagement, and job performance.

We also hoped to expand on the outcomes associated with FSSB training for applied, occupational implications given that national surveys (e.g., American Psychological Association, 2014; Matos & Galinsky, 2014) continue to point to work–family conflict as being one of the top stressors impacting workers' lives today. Practically speaking, these outcomes (i.e., organizational commitment, employee engagement, and job performance) are likely to be valued by organizational leaders and decision-makers. Yet there is little evidence linking work–family initiatives with business outcomes in the current literature. Kossek et al. (2010) noted the inclusion of performance outcomes has the potential to show that highly valued employees (i.e., top performers) stand to benefit from work–family initiatives. According to Rappaport, Bailyn, Fletcher, and Pruitt (2002), there is an underlying belief in many organizations that an ideal worker is one who is always available and does not allow nonwork/family responsibilities to interfere with work responsibilities, suggesting that individuals with non-

work demands (e.g., children or older parents to care for) are not able to perform as well relative to their counterparts. However, recent longitudinal research has found employee perceptions of FSSB to predict supervisor ratings of job performance over time (Ode-Dusseau, Britt, & Greene-Shortridge, 2012). Findings such as these go against these long-standing assumptions, and give a new view of an ideal worker—one that can perform highly when they are given resources to help balance work and nonwork/family responsibilities. Overall, providing evidence that work–life initiatives positively impact performance as well as job attitudes has the potential to facilitate the mainstreaming of work–life initiatives into organizations' core cultures (Kossek et al., 2010). Specific to this study, then, linking the FSSB training initiative to supervisor ratings of job performance provides evidence to organizations of the benefits of adopting work–life training initiatives.

FSSB training for health care workers. In an attempt to generalize the training effects to a different occupational group, we applied a work–family training intervention with supervisors at a nursing home. Health care employees typically work under a high level of work demands (Willemse, de Jonge, Smit, Depla, & Pot, 2012), and within environments where the job responsibilities are formally organized into hierarchical and vertical structures. This often results in low levels of job control for employees and strictly scheduled work hours due, for example, to regulations on nurse-to-patient staff ratios. Subsequently, there are not many opportunities for employees in this industry to use work–family policies such as telecommuting and flextime. The nursing home employees in this study fell within this categorization of health care employees, paid hourly wages, and situated low within the organizational hierarchy. Some of the occupational characteristics of this sample differ from the grocery store sample used in Hammer et al.'s (2011) study. For example, employees were required to provide a high level of caregiving for the nursing home patients, some of whom were completely dependent on employees to physically move. These employees also worked strict schedules due to regulated nurse-patient ratios. Nevertheless, the grocery store employees were in low-wage positions on the lower level of the organizational hierarchy, and as noted by Hammer et al. (2011), possibly stood to benefit from their supervisors' participation in FSSB training because of the lack of formal work–family policies that were available to them.

More recently, FSSB training effects have been examined as part of the larger Work, Family and Health Network study in an information technology industry. Although FSSB was part of a larger intervention process, it is important to recognize that beneficial effects of the intervention were found in this randomized controlled trial on work–family conflict (Kelly et al., 2014), employee sleep quality and quantity (Olson et al., 2015), and on parental time with children (Davis et al., 2015). Furthermore, Hammer, Truxillo, et al. (2015) recently demonstrated that FSSB, when combined with a team effectiveness process intervention, lead to improvements in blood pressure among construction workers. These recent findings suggest that there is promising evidence that FSSB is instrumental in increasing the health and well-being of workers and thus warrants continued research. However, all of these studies combined FSSB training with team-based facilitated approaches aimed at streamlining work and increasing control over work time. Furthermore, going back to the earlier Hammer et al. (2011), there is a need for more clear demonstration of the bene-

ficial effects of FSSB training on its own, as opposed to its integration with other team-based processes. One reason for this is that FSSB on its own can potentially be more “scalable” and thus more easily disseminated to managers and supervisors via computer/Web based training, potentially having a farther reach to organizational practitioners than a more complicated team-based combined intervention.

In the context of health care employees, general supervisor support perceived by employees has been found to buffer effects of job demands on emotional exhaustion (Willemse et al., 2012), providing support for the role that supervisors play in occupations with high job demands, such as the sample in the current study. Although general supervisor support is distinct from family specific supervisor support (Kossek, Pichler, Bodner, & Hammer, 2011), the constructs are related to one another, with family specific support being more strongly related to work–family outcomes than general supervisor support. Given that general supervisor support can be beneficial to employees, it is not surprising then that family specific supervisor support has also been found to have positive effects on employees' organizational commitment, turnover intentions, and supervisor ratings of job performance (e.g., Hammer et al., 2011; Ode-Dusseau et al., 2012), as well as health outcomes such as insufficient and inadequate sleep, in addition to cardiovascular disease risk (e.g., Crain et al., 2014; Berkman, Buxton, Ertel, & Okechukwu, 2010). Therefore we expected the positive effects of the FSSB training to also extend to participants in our study because of the similarity in level of job control as the Hammer et al. (2011) grocery workers, where the employees were situated in the organizational hierarchy, and lack of opportunity to use flexible work arrangements to manage family responsibilities. In addition, demonstrating the benefits of this training to additional types of employees would add to the evidence that the training is not only useful to one specific occupation.

When examining their process, Hammer et al. (2011) found that employee perceptions of FSSB served as the mechanism by which their FSSB training produced positive effects for individuals experiencing high levels of work–family conflict. Because of this, we also predict that employees' perceptions of FSSB will function as the process or mechanism through which the current work–family initiative operates. Therefore, given the positive effects found in Hammer et al.'s (2011) FSSB intervention on job satisfaction and turnover intentions via perceptions of FSSB, the link supported between FSSB and job performance (Ode-Dusseau et al., 2012), and rooted in Kelly et al.'s (2008) conceptual model, we proposed the following hypotheses:

Hypothesis 1: Supervisor FSSB training will significantly predict changes in employee perceptions of FSSB.

Hypothesis 2: Supervisor FSSB training will have an indirect (i.e., mediating) effect on changes in employee job satisfaction, organizational commitment, engagement, turnover intentions, and supervisor ratings of job performance through changes in employee perceptions of their supervisors' overall FSSB, such that changes in overall FSSB will be positively associated with changes in employee job satisfaction, organizational commitment, engagement, and supervisor ratings of job performance, and negatively associated with changes in turnover intentions.

In addition to demonstrating that perceptions of FSSB were the mechanism by which training predicted positive effects, as noted above, these effects were found for those individuals who reported high levels of FWC (Hammer et al., 2011). Theoretically, work–family conflict is thought to occur when work and family interfere with one another bidirectionally (Greenhaus & Beutell, 1985). Given that work–family conflict has been consistently linked to negative effects on employee well-being, and consistent with Hammer et al.'s (2011) results, we also expect that more beneficial effects of the training will be found for those individuals in need of such an intervention (i.e., those with high work–family conflict).

Hypothesis 3: Work–family conflict (i.e., work-to-family conflict [WFC] and family-to-work conflict [FWC]) will moderate the effects of FSSB training such that, when baseline levels of work–family conflict are high, changes in FSSB will be positively associated with changes in the outcomes.

In sum, the current study tests a model where a work–family initiative, based on the FSSB training developed by Hammer et al. (2011), is expected to lead to employee and organizational benefits in terms of increased job satisfaction and decreased turnover intentions as found by Hammer et al., as well as increased organizational commitment, employee engagement, and supervisor ratings of employee job performance. In addition, we expect that increased employee perceptions of FSSB will serve as the mechanism by which the supervisor training will have beneficial effects on employee outcomes. In other words, employees should perceive an increase in the amount of family-supportive behaviors exhibited by their supervisors once their supervisor completes the training, which in turn should facilitate increases in job attitudes and job performance. Finally, we expect WFC to moderate the effectiveness of the FSSB training (see Figure 1).

Differential Effects of FSSB Dimensions

Additionally, the current study focused on a more fine-grained analysis of the differential training effects of the four dimensions

underlying the FSSB construct not studied previously. FSSB is explicitly defined as “behaviors exhibited by supervisors that are supportive of families” (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009, p. 838). In the development and validation of their measure of FSSB, Hammer et al. (2009) identified four facets of FSSB that create the superordinate construct: (a) supervisor’s emotional support, based on perceptions that one’s feelings surrounding family are of concern to the supervisor, and that the employee can communicate to their supervisor about work–family issues when needed; (b) instrumental support, or perceptions that a supervisor responds to work and family demands through daily management transactions, such as responding to schedule requests; (c) role modeling behavior, where supervisors demonstrate their own strategies for managing work and family responsibilities; and (d) creative work–family management, consisting of supervisors proactively finding strategies to assist employees in managing work and family domains.

Hammer et al. (2009) found evidence to support a hierarchical factor structure of the FSSB measure with a single second-order factor explaining the relationships between the four first-order FSSB subdimension factors. In this validation study (Hammer et al., 2009) a multilevel confirmatory factor analysis was conducted that supported a second-order factor model where the four first-order factors loaded onto a single second-order factor with the second-order factor fitting the data well. Furthermore, reliability estimates for the overall factor as well as the individual dimensions were all in the .9–.8 range with intercorrelations between the scales in the .62–.72 range. This measure accounted for significant variance in work–family conflict above and beyond a measure of general supervisor support demonstrating significant incremental validity. Thus, there has been prior empirical work that has supported both the overall and individual dimensions of FSSB. Hammer et al. (2009) made the argument for using both the overall and individual dimension scores depending on the purpose of the study. Nonetheless, alternative model structures can fit the data equally or almost equally well, so evidence of good model-data fit does not necessarily imply that a favored model is correct (MacCallum, Wegener, Uchino, & Fabrigar, 1993). In the current study, we focus on the specification of the relationship between the four first-order FSSB subdimension factors and the single second-order FSSB factor and evaluate whether this part of the model is better specified as a reflective or formative measurement structure (see Bollen & Lennox, 1991).¹

Hammer et al.'s (2009) model structure specified a reflective measurement model, where any changes to one’s standing on all FSSB subdimension factors are due to changes in the global FSSB factor. However, the FSSB subdimensions involve skills, abilities and behaviors that may be improved upon somewhat independently of one another and this can improve one’s standing on the global FSSB factor. For example, instrumental support could be exhibited when a manager allows an employee to leave work early on a given day for a child’s school event, whereas creative work–family management could occur when a manager develops a

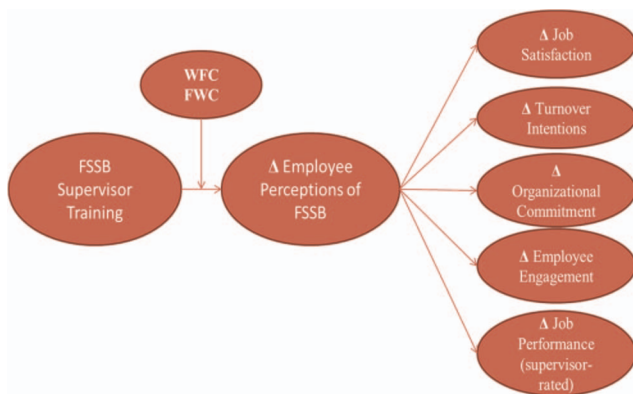


Figure 1. Proposed model. Δ = Change from Time 1 to Time 2 data collection; family-supportive supervisor behaviors (FSSB) supervisor training occurred between data collection periods. WFC = work-to-family conflict; FWC = family-to-work conflict. See the online article for the color version of this figure.

¹ In a reflective measure, the “causal” arrows go from the common construct to its indicators; in a formative measure, the arrows go from the indicators to the common construct (, e.g., see Figure 1 of Bollen & Ting, 2000).

strategy to plan for employees' future leaves by training those who would back-fill the responsibilities while the employee is gone. Varying organizational contexts provide different opportunities and constraints for these separate forms of support, yet a recent critique of stress intervention research has noted the lack of contextual consideration (Biron & Karanika-Murray, 2014). Perhaps supervisors of health care employees are constrained in the type of instrumental support they can provide to employees (e.g., they are not able to provide flextime for employees due to caregiver-patient ratios), potentially hindering the effectiveness of training on instrumental support behaviors. Thus we conjecture that the second-order factor structure of the FSSB may be better considered as having a formative measurement structure,² where subsequently different effects may be found depending on the FSSB dimension being assessed.

If there are differential training effects for the individual dimensions of FSSB, this could be important for the theoretical development of the FSSB construct. In addition, understanding differential effects of the dimensions also has practical implications for more targeted interventions that could maximize the benefits of FSSB. As a result, FSSB training may be differentially effective, depending on the dimension and organizational context. So although we expect indirect effects of FSSB training on the outcomes to occur for the overall construct, we are also interested in testing indirect effects for each of the four FSSB dimensions.

Research Question 1: Will the hypothesized indirect effects in Hypothesis 1 and Hypothesis 2 replicate with each of the four dimensions underlying FSSB?

Method

Procedure

The study was conducted in eight separate locations (retirement communities that were part of one organization) in the United States Mid-Atlantic region. The design was a quasi-experimental, pretest–posttest study that included a training workshop for the organization's supervisors aimed at increasing FSSB. We began by surveying employees face-to-face with paper surveys to determine if in fact there was a need for FSSB training (i.e., the perceived levels of FSSB were not high), and to determine baseline levels of employee job attitudes and performance to compare with posttest survey responses. Thus the survey assessed perceptions of FSSB, job satisfaction, turnover intentions, organizational commitment, and engagement (see descriptions below). These paper surveys were handed out at two different time periods, approximately 10 months apart. Employees were asked to fill out a survey on work–life balance, and were not provided any incentive to participate. During the initial needs assessment, 327 participants provided responses to the survey (35% of the employees).

The training workshop, delivered approximately seven months after conducting the baseline survey for the needs assessment, was modeled after the FSSB training intervention developed by Hammer et al. (2011);³ however, the current training did not include a computer-based component as Hammer et al.'s had due to resource constraints of the current study. It did contain face-to-face training which was delivered by the first author, at all locations, offering two delivery times at each location in order to accommodate

supervisor schedules. The components of the face-to-face training, which lasted approximately three hours, reflected many of the components of Hammer et al.'s (2011) computer-based training, including (a) educational information on the organizationally desired outcomes associated with reducing work–family conflict, such as organizational identification, retention, and employee performance and well-being; (b) information on the types of organizational resources found to play a part in reducing work–family conflict, such as work–life policies, and FSSB; (c) results of the baseline survey that demonstrated employees' low levels of perceived family-supportive behaviors demonstrated by their supervisor; and (d) definitions and examples of each of the four dimensions of FSSB. Although the face-to-face training was longer/more extensive than what was provided by Hammer et al. (2011) and attempted to incorporate the material from the computer-based training, the face-to-face training in the current study did not include some of the learning principles that were part of the original computer-based training. For example, the computer-based training included embedded quiz questions throughout the training to help motivate attention to the material and the requirement to review the material when a quiz question was missed. Thus, differences in the training content and delivery must be noted.

The training session, which lasted approximately three hours, included an interactive exercise where the participants were asked to generate examples of experiences when one of their subordinate employees was faced with a dilemma stemming from work–family conflict. Once these experiences were generated, the participants analyzed what they did in response to the dilemma, which dimension of FSSB the response would fall under, and then created a list of other strategies they could have utilized. Finally, the training session concluded with a measure of participant reactions to the training, which were overwhelmingly positive. Participation by the supervisors was highly encouraged by organizational leadership, but not mandatory. Subordinates were not aware if their supervisors had attended the training session.

In addition to the training workshop, supervisors were given self-monitoring cards, based on the self-monitoring component of FSSB training developed by Hammer et al. (2011), which was aimed at motivating the supervisors to transfer what they had learned during the training onto real scenarios as they arose in the workplace. Behavioral self-monitoring consists of individuals recording their behaviors repeatedly, and evaluating their behavior (Olson & Winchester, 2008). In the current study, supervisors were asked to provide daily estimates for the two weeks following the training on what behaviors they had exhibited that were reflective of each of the four dimensions of FSSB, and to return the cards to the first author. The cards had each of the four dimensions of FSSB listed and defined, with a space after each dimension provided for the supervisors to note their behaviors. Thus, in line with evalua-

² Although the use of formative structures in measurement models has been debated, their use is appropriate when conceptual reasoning is established, as in the current study (see Diamantopoulos, Riefler, and Roth (2008) for a review of these points). Additionally, the current analysis applies a formative structure at the second order only.

³ The specific protocol for the face-to-face training component was shared with the first author through personal communication, to ensure as much replication occurred as possible.

tion steps outlined by Kirkpatrick (1959), we aimed to evaluate the training session through assessment of the reactions of the participants, learning through an interactive exercise during the training, behavioral self-monitoring, as well as results of the training (i.e., changes in employee attitudes and job performance).

Regarding supervisor participation in the training sessions, out of a possible 122 supervisors, 86 participated in the training workshop (71%). All supervisors who participated in the training sessions received self-monitoring cards to fill out. However, only 10% of those returned the cards. As a result, we were not able to assess the influence of self-monitoring in the current study.

The second data collection was conducted approximately one month following the training workshops (emulating Hammer et al.'s [2011] protocol for posttraining survey); 271 employees participated in this posttraining survey (30% of organizational employees). Supervisor ratings of job performance were also obtained at the two data collection time periods, and were matched up with employees' survey responses using assigned codes. The number of employees rated by each supervisor ranged from one to 17 ($M = 3.95$).

Participants

Once we merged the data across the two waves of employee surveys and the two waves of supervisor ratings of performance, the final sample analyzed included 143 health care employees at the retirement communities (31% nursing, 11% dining services, 14% housekeeping/laundry, 9% activities/transportation, 5% building/grounds, 14% administration, 6% community outreach, 10% corporate office). The final sample size of 143 participants was partially due to the ability to match up employees to their supervisor ratings of job performance (supervisors of 154 [16%] of the Time 2 employees did not provide ratings for their employees across both time periods), as well as the fact that some employees who took part in the needs analysis survey were no longer with the organization for the posttest survey (14% of the original Time 1 sample), in addition to new employees hired after the initial needs analysis survey was administered (18% of the sample at Time 2). Thus of the 946 employees available for sampling at Time 2, 589 (62%) of them were employed at both time periods.⁴ Eighty-seven percent of the final sample that was analyzed was female, with a mean age of 45. Ninety-four percent were White, and 71% were married or living with a significant other, and 36% had one or more children under the age of 18 living in the home.

Measures

FSSB. To measure supervisory support for family, the 14-item scale developed by Hammer et al. (2009) was used. The items assessed perceptions of supervisor supportive behaviors specific to work and family interactions in the dimensions of emotional support (e.g., "My supervisor is willing to listen to my problems in juggling work and nonwork life"; $\alpha = .93$), instrumental support (e.g., "I can depend on my supervisor to help me with scheduling conflicts if I need it"; $\alpha = .86$), role-modeling (e.g., "My supervisor is a good role model for work and family/nonwork balance"; $\alpha = .92$), and creative work-family management (e.g., "My supervisor is creative in reallocating job duties to help me department work better as a team"; $\alpha = .93$). Participants were asked to

indicate their agreement on a 5-point scale (overall scale $\alpha = .97$).⁵

Job satisfaction. Two items from the 3-item scale developed by Friedman and Greenhaus (2000) and two items from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979) were used to measure global job satisfaction ($\alpha = .78$). Respondents indicated agreement on a 7-point scale to items about their job (e.g., "All in all, I am satisfied with my job").

Organizational commitment. Allen and Meyer's (1990, 1996) Affective Commitment Scale was used to measure organizational commitment ($\alpha = .87$). The scale included four of the original six items with which employees indicated their degree of agreement or disagreement on a 7-point scale (e.g., "This organization has a great deal of personal meaning for me").

Turnover intentions. Three items, developed by Chapman (1991), were used to evaluate thoughts and intentions to leave the organization (e.g., "I would prefer another more ideal job than the one I now work in"). In addition, we added a fourth item to assess a more behavioral component of intention to leave, "I am presently seeking to change jobs." Respondents indicated their agreement with the statements on a 5-point Likert scale ($\alpha = .84$).

Employee engagement. Four items from a scale used in past research on job engagement (Britt, 2003; Britt, Adler, & Bartone, 2001; Britt, Castro, & Adler, 2005) were used to measure employee engagement ($\alpha = .91$). The original measure consists of six items which asked about an individual's perceived responsibility for job performance and how much job performance matters. Respondents were asked to indicate their extent of agreement with each of the items on a 5-point scale (e.g., "I really care about the outcomes that result from my job performance").

Job performance. The current study asked supervisors to rate the performance of their subordinates. A global measure of job performance was used due to the range of employee types in the current sample (e.g., nurses, dining hall employees, building and grounds keepers, custodial workers). Supervisors were asked to compare each employee's performance to that of all other employees they were responsible for supervising and rate them on a 5-point scale. Four items tapped into task performance (e.g., "meets formal performance requirements of the job"; $\alpha = .97$). These four task performance items were chosen from Williams and Anderson (1991) based on factor loadings. In addition, 12 contextual performance indicators were also rated by supervisors (e.g., "helps new employees get oriented with the facility"; $\alpha = .97$), which were based on critical indicators of job performance determined by Motowidlo, Packard, and Manning (1986).

Work-family conflict. Work-family conflict was measured with an 8-item measure altered from a 12-item measure used by Frone and Yardley (1996) assessing bidirectional work-family

⁴ Eighty-six percent of employees surveyed at Time 2 were female, 94% were White, 75% were married or living with a significant other, and 31% had one or more children under the age of 18 living in the home. Of employees surveyed at Time 2, 81% were female, 96% were White, 71% were married or living with a significant other, and 36% had one or more children under the age of 18 living in the home. Thus the two samples were comparable.

⁵ Time 2 alphas are as follows: Emotional support ($\alpha = .92$), Instrumental support ($\alpha = .88$), Role-modeling ($\alpha = .93$), Creative work-family management ($\alpha = .87$).

conflict. Four items assessed work interference with family (WFC; e.g., "My job or career keeps me away from the amount of time I would like to spend with my family") and four items assessed family interference with work (FWC; e.g., "My personal demands are so great that it takes away from my work"). Agreement was indicated on a 7-point scale, and the reliability was estimated at .83 for WFC and .83 for FWC.

Results

Preliminary Analyses and Analytical Approach

Employees were coded based on whether or not their direct supervisor had attended the FSSB training workshop. In all, 35% of employees reported to a supervisor who did not attend the training, and 65% of employees had a supervisor who attended training. We then calculated difference scores (cf. MacKinnon, Fairchild, & Fritz, 2007) between the two time periods for FSSB (the overall construct, as well as each of the four dimensions), job satisfaction, organizational commitment, turnover intentions, engagement, and supervisor ratings of performance, in order to determine if there were changes that occurred after the training workshops. Although historically psychologists were trained to question the use of difference scores, current standards support the practice when interest lies in the assessment of change in a study without random assignment using two time-points (e.g., Fitzmaurice, 2001; Fitzmaurice, Laird, & Ware, 2004). Table 1 displays descriptive statistics for these study variables.

To test the study hypotheses and research question, we employed a longitudinal path modeling approach (MacKinnon, 2008) whereby changes in variables at Time 2 relative to Time 1 are used in the analysis. The specified path models follow that which appears in Figure 1 with the addition of direct effects from the indicator for training to the five outcomes. Thus, for example, mean change in FSSB is predicted by supervisor training (effects coded as trained = .34, not trained = -.66) and change in job

performance is predicted by supervisor training and change in FSSB. The parameters in this model include the direct effect of supervisor training on change in FSSB, the conditional direct effect of supervisor training on the five outcomes, and the conditional effect of change in FSSB on the five outcomes; the products of the first and last sets of parameters define the indirect effect of supervisor training on changes in the five outcomes through changes in FSSB.

Because of the reduction in the employee sample that we were able to analyze (due to matching up employee-supervisor dyads) from Time 1 ($N = 241$) to Time 2 ($N = 143$), all inferential analyses were conducted in Mplus 4.2 using the full-information maximum likelihood estimation routines that account for missing data. Given the clustering of employees within supervisors, we first explored the degree of data dependency. Intraclass correlations (ICCs) were small to moderate in size (minimum ICC = .01 for change in organizational commitment; maximum ICC = .14 for change in FSSB). Thus, inferential models were used to account for this dependency (MacKinnon, 2008); furthermore, given the small number of locations, location differences were controlled for as fixed effects in the models.

Indirect Effects of Training on Outcomes Through Overall FSSB

Table 2 provides the results of the path analysis model. Consistent with Hypothesis 1, training had a significant association with changes in overall FSSB ratings ($\beta_a = 0.36, p < .01, d = .42$) indicating greater mean change for employees with trained than untrained supervisors. We note that, after controlling for training effects, changes in overall FSSB were positively associated with changes in task job performance ($\beta_b = 0.32, p = .001$), contextual job performance ($\beta_b = 0.25, p = .008$), organizational commitment ($\beta_b = 0.51, p = .009$), engagement ($\beta_b = 0.18, p = .003$), and job satisfaction ($\beta_b = 0.66, p < .001$), and negatively associated with changes in intentions to leave ($\beta_b = -0.33, p = .003$).

Table 1
Means and Standard Deviations of and Correlations Among Study Variables

Variable	<i>M</i>	<i>SD</i>	Correlations													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. FSSB training	.00	.48	—													
2. Time 1 WFC	3.75	1.43	-.01	—												
3. Time 1 FWC	2.16	.95	.09	.51*	—											
4. Δ Task performance	-.02	.75	-.13	-.04	-.14*	—										
5. Δ Contextual performance	-.13	.66	-.05	-.06	-.05	.67*	—									
6. Δ Turnover intentions	.23	.71	.00	.06	.04	-.16	-.18*	—								
7. Δ Org. commitment	-.28	1.46	-.05	.03	.02	.20*	.25*	-.42*	—							
8. Δ Engagement	-.05	.45	.09	-.07	-.08	.13	.10	-.09	.06	—						
9. Δ Job satisfaction	-.26	1.05	.17*	.05	.01	.19*	.20*	-.52*	.36*	.16*	—					
10. Δ FSSB (global)	-.08	.63	.19*	-.01	-.03	.29*	.23*	-.30*	.19*	.27*	.40*	—				
11. Δ FSSB (ES)	-.10	.78	.11	.02	.02	.27*	.19*	-.26*	.13	.17*	.37*	.84*	—			
12. Δ FSSB (IS)	-.10	.73	.20*	-.13	-.09	.22*	.15	-.23*	.13	.21*	.30*	.80*	.62*	—		
13. Δ FSSB (RM)	-.05	.82	.10	.01	.00	.11	.07	-.22*	.16	.22*	.29*	.80*	.54*	.54*	—	
14. Δ FSSB (CM)	-.05	.78	.21*	.04	-.03	.28*	.28*	-.24*	.18*	.27*	.33*	.82*	.52*	.53*	.56*	—

Note. *Ns* range from 121 to 241; family-supportive supervisor behaviors (FSSB) training (.34 = received; -.66 = otherwise). Descriptive statistics for the location indicators are not presented for brevity. WFC = work-to-family conflict; FWC = family-to-work conflict; Δ = Time 2 score - Time 1 score; ES = emotional support; IS = instrumental support; RM = role modeling; CM = creative work-family management; Org. = organizational.

* $p < .05$.

Table 2

Path Model Estimates of Training Effects on Study Outcomes Through Overall Family-Supportive Supervisory Behaviors (FSSB)

Predictor	Δ FSSB	Δ Job satisfaction	Δ Turnover intentions	Δ Org. commitment	Δ Engagement	Δ Task performance	Δ Contextual performance
Intercept	-.10 (.17)	-.06 (.18)	.02 (.18)	.40 (.43)	-.06 (.10)	.07 (.17)	-.31 (.21)
Training	.36* (.13)	.27 (.17)	.04 (.15)	-.15 (.28)	.07 (.10)	-.17 (.17)	-.23* (.11)
Δ FSSB		.66* (.14)	-.33* (.11)	.51* (.20)	.18* (.06)	.32* (.10)	.25* (.10)
Location 1	.08 (.20)	.05 (.21)	.17 (.15)	-.54 (.47)	-.16 (.15)	.10 (.28)	.42 (.25)
Location 2	-.10 (.23)	-.33 (.25)	.24 (.24)	-.93* (.47)	-.07 (.14)	-.12 (.22)	.23 (.25)
Location 3	-.29 (.23)	-.08 (.22)	.32 (.21)	-.48 (.43)	.04 (.14)	-.37 (.24)	.25 (.21)
Location 4	.16 (.30)	-.68* (.31)	.57* (.26)	-1.15 (.70)	.06 (.19)	.07 (.34)	.39 (.34)
Location 5	.12 (.21)	-.21 (.24)	-.15 (.24)	-.55 (.52)	.14 (.13)	.28 (.39)	.22 (.24)
Location 6	-.04 (.20)	-.07 (.28)	.36 (.23)	-.83 (.48)	.05 (.14)	-.18 (.20)	.08 (.22)
Location 7	.32 (.35)	-.36 (.60)	.20 (.33)	-1.17* (.56)	.04 (.12)	.17 (.23)	.48* (.14)
R^2	.10*	.20*	.17*	.09*	.10*	.18*	.10*
Indirect Effects							
Training $\rightarrow \Delta$ FSSB $\rightarrow \Delta$ Outcome		.24* (.10)	-.12* (.06)	.19† (.10)	.06* (.03)	.12* (.05)	.09† (.05)

Note. Cell entries estimates (standard errors). Estimates and standard errors account for clustering of employees within supervisors. Training (coded: supervisor trained = .34; supervisor not trained = -.66). Org. = organizational.

† $p < .06$. * $p < .05$.

Hypothesis 2 specifies an indirect effect of training on these outcomes through overall FSSB. As reported in Table 2, training had significant indirect effects through changes in overall FSSB on changes in task job performance ($\beta_{ab} = 0.12, p = .03$), engagement ($\beta_{ab} = 0.06, p = .04$), job satisfaction ($\beta_{ab} = 0.24, p = .02$) and intentions to leave ($\beta_{ab} = -0.12, p = .04$), but not contextual job performance ($\beta_{ab} = 0.09, p = .054$) or organizational commitment ($\beta_{ab} = 0.19, p = .056$). These results partially support Hypothesis 2.

Hypothesis 3, motivated by the results of Hammer et al. (2011), predicted that WFC and FWC at Time 1 will moderate the effect of training on overall FSSB and these outcomes. To test this hypothesis, interactions between training and WFC and FWC were added to the path model. Only one of these interactions was statistically significant; supervisor training was associated with lower levels of change in contextual job performance for those with higher levels of WFC ($\beta = -0.16, p = .04$). Thus, overall, these results do not support Hypothesis 3.

Indirect Effects of Training on Outcomes Through FSSB Dimensions

Research Question 1 asks whether the training effects in Hypotheses 1 and 2 will replicate for each of the four dimensions underlying the overall FSSB construct. If the four FSSB dimensions were reflective, lower-order constructs of the higher-order overall FSSB construct, then changes in the overall construct would mandate proportional changes to each of the lower order constructs. If the overall FSSB construct is a formative construct of the four lower order constructs, however, changes in the overall FSSB construct would result from changes in the lower-order construct dimensions.

Although recent research has questioned the utility of the formative measurement model due to problems with parameter underidentification (Edwards, 2011), we adopt confirmatory tetrad analysis as an alternative approach to adjudicate between formative and reflective measurement structures. A strength of the confirmatory tetrad analysis approach is that it separates questions

regarding model structure from questions that involve model parameters and therefore can test hypotheses about model structure in some cases where the model parameters are not identified, as is the case with formative measurement models (e.g., Bollen & Ting, 1993; Hipp, Bauer, & Bollen, 2005; Johnson & Bodner, 2007, 2013). In particular, Bollen and Ting (2000) discuss and provide a tetrad-based test to differentiate reflective from formative measurement structures. For this test, we used the four FSSB subdimension scale scores at Time 1 ($N = 239$) and conducted the test using the SAS macro described in Hipp et al. (2005). The confirmatory tetrad analysis test rejected the reflective measurement model in favor of the formative measurement model, $\chi^2(2) = 7.88, p = .02$. This test supports the possibility that the four dimensions underlying the overall FSSB construct can change over time somewhat independently.

Using the same approach for the test of Hypothesis 1, we explored whether supervisor training was associated with changes over time for each of the four FSSB dimensions. Supervisor training was significantly associated with greater change in instrumental support ($\beta_a = 0.43, p = .02, d = .51$), role modeling ($\beta_a = 0.30, p = .03, d = .31$), and creative management ($\beta_a = 0.53, p < .01, d = .55$), but not with emotional support ($\beta_a = 0.26, p = .10, d = .28$). Regarding indirect training effects (Hypothesis 2) and in contrast with results with overall FSSB, no significant indirect effects of training on the outcomes were observed through emotional support or through role modeling; through instrumental support, only the indirect effect of training on changes in job satisfaction was significant ($\beta_{ab} = 0.16, p = .04$). As displayed in Table 3, five of the six indirect effects of training on the outcomes through changes in creative management were significant. In particular, training had significant indirect effects through changes in creative management on changes in task job performance ($\beta_{ab} = 0.13, p = .03$), contextual job performance ($\beta_{ab} = 0.12, p = .02$), engagement ($\beta_{ab} = 0.07, p = .02$), job satisfaction ($\beta_{ab} = 0.22, p = .03$), and organizational commitment ($\beta_{ab} = 0.21, p = .03$), but not intentions to leave ($\beta_{ab} = -0.11, p = .057$). We interpret these results to indicate that training effects on change in the FSSB

Table 3

Path Model Estimates of Training Effects on Study Outcomes Through Creative Management Family-Supportive Supervisory Behaviors (FSSB)

Predictor	Δ FSSB	Δ Job satisfaction	Δ Turnover intentions	Δ Org. commitment	Δ Engagement	Δ Task performance	Δ Contextual performance
Intercept	-.07 (.16)	-.09 (.16)	.03 (.15)	.38 (.38)	-.06 (.10)	.08 (.16)	-.32 (.19)
Training	.51* (.16)	.28 (.17)	.03 (.14)	-.18 (.27)	.06 (.10)	-.18 (.17)	-.25* (.11)
Δ FSSB-CM	.	.44* (.15)	-.22* (.09)	.42* (.15)	.14* (.04)	.25* (.08)	.23* (.07)
Location 1	.12 (.31)	.05 (.20)	.17 (.17)	-.55 (.43)	-.17 (.14)	.08 (.28)	.41 (.24)
Location 2	-.20 (.22)	-.31 (.22)	.23 (.21)	-.90* (.42)	-.05 (.13)	-.12 (.20)	.24 (.23)
Location 3	-.35 (.25)	-.12 (.21)	.34 (.18)	-.48 (.38)	.04 (.13)	-.39 (.23)	.25 (.20)
Location 4	.19 (.30)	-.65 (.29)	.56* (.24)	-1.13 (.67)	.06 (.19)	.05 (.34)	.37 (.33)
Location 5	.16 (.22)	-.21 (.22)	-.15 (.21)	-.56 (.50)	.13 (.13)	.27 (.37)	.22 (.23)
Location 6	-.08 (.22)	-.06 (.27)	.36 (.22)	-.81 (.44)	.05 (.13)	-.18 (.18)	.08 (.21)
Location 7	.49 (.40)	-.37 (.65)	.20 (.34)	-1.21* (.52)	.03 (.12)	.14 (.21)	.44* (.14)
R ²	.14*	.15*	.14*	.09*	.10*	.18*	.12*
Indirect Effects							
Training → Δ FSSB-CM → Δ Outcome		.22* (.10)	-.11† (.06)	.21* (.10)	.07* (.03)	.13* (.06)	.12* (.05)

Note. Cell entries are estimates (standard errors). Estimates and standard errors account for clustering of employees within supervisors. Training (coded: supervisor trained = .34; supervisor not trained = -.66). CM = creative work-family management; Org. = organizational.

† $p < .06$. * $p < .05$.

creative work-family management was the primary mechanism through which the overall FSSB results were obtained.

Discussion

Taken together, using a quasi-experimental design, the results demonstrate that when employees' perceptions of FSSB were increased after their supervisors attended training sessions, we found increases in employees' job satisfaction, organizational commitment, and supervisor ratings of job performance, as well as decreases in turnover intentions. This study extends the FSSB training effects found by Hammer et al. (2011) beyond employee reports of job satisfaction, turnover intentions, and physical health to also include other organizationally valued outcomes—employee reports of engagement and supervisor ratings of employee job performance. Moreover, the underlying dimensions of FSSB may bring about differential beneficial effects, given results suggesting that FSSB, in this context, is best represented by a formative, rather than reflective, measurement structure. As such, effects of the training on outcomes were primarily driven by the creative work-family management dimension of FSSB.

This study also generalizes the effects of the work-family training intervention developed and evaluated by Hammer et al. (2011), beyond the retail grocery store environment to a group of retirement home health care employees, which differed in some occupational characteristics such as caregiving responsibilities. Furthermore, this is one of just a handful of work-family intervention studies that is evidence-based, and provides specific additional validation evidence of FSSB training as a work-family intervention independent of other team-based facilitated sessions as demonstrated in more recent research (Davis et al., 2015; Hammer, Truxillo, et al., 2015; Kelly et al., 2014; Olson et al., 2015).

Differential Effects of FSSB Dimensions

One area worthy of future exploration is the mediating effect found for two of the four dimensions of FSSB. The creative

work-family management dimension is based on the idea that work responsibilities can be redesigned in a way to improve one's effectiveness in both work and nonwork domains (Hammer et al., 2009), and therefore benefit both employees and their organizations. For the hourly, health care employees in the current sample, changes in perceptions of these types of behaviors were found to serve as a mechanism by which the FSSB supervisor training indirectly predicted increased supervisor ratings of job performance as well as increases in employees' organizational commitment, engagement, and job satisfaction. Perhaps, for employees with low levels of job control, this dimension becomes more critical because of the lack of access to more traditional arrangements for dealing with family responsibilities (e.g., flexible work arrangements). Furthermore, the increased perceptions of instrumental support behaviors also mediated the relationship between training with job satisfaction, showing potential importance of managers responding to employees' family demands through transactional methods.

Our differential mediation findings for the changes in the dimensions of FSSB suggest that future work-family initiatives may be tailored in order to address the needs of each organization and its employees. Although Hammer et al. (2009) found support for a single global factor underlying these four FSSB dimensions, comparing the results for the changes in overall FSSB measure with the results for changes in each of the underlying dimensions suggests that changes in these dimensions differentially relate to changes in key organizational outcomes. We feel this result is important given that emotional and instrumental support are often the primary or only dimensions in measures of social or supervisory support (see, e.g., Table 1 in Hammer et al., 2009), and these results underscore the importance of these additional FSSB dimensions, particularly the creative work-family management dimension. Insight into the differential effects could also aid in better understanding the process factors that influence *how* these work-family initiatives function. This echoes the call from Kelly et al. (2008) that researchers should tease apart the different processes by which work-family initiatives impact organizations—through the increase of revenue

via higher levels of performance, and through the decrease of costs due to lower levels of turnover intentions. Future organizational work–family initiatives could be tailored to better fit the needs of the specific organization, with the implementation of more targeted FSSB training.

Organizational Context: Directions for Future Research

Consideration of organizational context can serve as an instrumental mechanism to advance both theory and practice for work–family research as well as organizational interventions. Context has been defined as “situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables,” (Johns, 2006, p. 386). When implementing organizational interventions, organizations are undoubtedly made up of various situational opportunities and constraints. Attention to the context within the current study becomes important when interpreting our results. For example, compared with Hammer et al.’s (2011) results, one difference found with the current sample was the lack of moderating effects of WFC. Although FWC did moderate effects of the training in the sample of grocery workers, the effects of FSSB training on changes in organizational outcomes did not depend on employees’ levels of WFC or FWC in the current sample of health care workers. Perhaps differences in context may account for these differences. For example, grocery store workers who initially reported high level of FWC were more likely to report higher perceptions of FSSB after the training, compared with grocery store workers who initially reported low levels of FWC—they reported lower perceptions of FSSB after the training (Hammer et al., 2011), suggesting a potential “family-friendly backlash.” We wonder whether something specific to the context health care employees work in creates a value in family friendly initiatives regardless of one’s own experiences of FWC; perhaps a general culture of caregiving occurs in health care settings. Future research should continue to examine the potential for these moderating effects within different contexts.

Another unexpected finding was the effects of training on job performance when separating out task performance from contextual performance. Specifically, supervisors who attended training were more likely to rate their employees lower on contextual performance, compared with supervisors who did not attend the training. We wonder if going through FSSB training had an effect on supervisors’ frame of reference when it comes to providing supportive behaviors, potentially creating higher expectations of these behaviors for all those in their departments. Thus, those employees whose supervisors attended FSSB training may have had higher expectations to live up to, and thus were judged more harshly when not demonstrating supportive behaviors, which would be consistent with contextual job performance. Assessing supervisors’ perceptions after attending FSSB training would allow researchers to study other mechanisms by which the training predicts changes in organizational outcomes.

Although there were differences in organizational context compared with Hammer et al. (2011), there were similarities as well. Specifically, the supervisors who were trained and subsequently provided supervisor ratings of job performance were in charge of low-wage, hourly employees, low within the organizational hier-

archy, who in the current study were working rigid shifts that did not allow them to take advantage of structural family friendly benefits such as flexible work arrangements (e.g., 70% of the respondents were not in administrative or corporate office positions). Perry-Jenkins (2005) has noted the lack of opportunity for working-class employees to utilize traditional policies that assist in balancing work and family responsibilities, such as flex-time and dependent-care assistance. Employees interviewed in her research reported making use of more “non-uniform” agreements with supervisors to accommodate work–family needs, due to supervisors’ constraints in what policies they could allow their employees to use (Perry-Jenkins, 2005). Although we did not directly compare lower level employees to higher level employees in the current study, it may be the case that lower level employees, who do not necessarily have access to as many work–family policies and benefits as higher level employees, stand to benefit the most from more customized arrangements. In other words, lower level employees who must manage work and family demands under different, potentially more stringent conditions than higher level employees may benefit when their supervisor provides support that, for instance, redesigns work structures that challenge organizational assumptions, therein directly aligning with the definition of the FSSB creative work–family management dimension.

Nonetheless, the broader area of work–family research has typically been conducted using professional-level employees, whereas research focusing on employees who work at lower levels of the organizational hierarchy has been lacking (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007). In order for work–family research to continue to advance theoretically, it is important that experiences of individuals at all levels of organizations be understood. Although links have been established between work–family conflict and family support from supervisors (Hammer et al., 2011), it has yet to be examined in the context of job level. Future research could directly compare how work–family initiatives function for employees among the different hierarchical levels of an organization.

Relatedly, work–family initiatives stand to gain from further examination of employee-specific contextual factors to understand what circumstances allow for the benefits of these work–family initiatives to function. Hammer et al. (2011) reported moderating effects of work–family conflict, such that the beneficial effects of their training were observed for employees who initially reported high work–family conflict. Bagger and Li (2014) found that when employees had low levels of family friendly benefits available to them, they reported higher levels of social-exchange relationships with their supervisors which subsequently related to increased job performance, compared with employees who had access to high numbers of family friendly benefits. Additionally, the impact of this training across organizational cultures may differ, as the relationship between work demands and work–family conflict has been found to be stronger for individualistic cultures than for collectivist cultures (Spector et al., 2004). Overall, future research that is able to further explore the different contextual factors that influence the level of beneficial effects is warranted.

Limitations and Conclusion

There are several limitations of our study. One limitation is that the sample is heavily made up of females. Consequently, these

results may lack generalizability to occupations that are not made up of a majority of female employees. For example, we do not know how these results would apply to occupations that are male-intensive (i.e., held by 60% or more males). Although males have been increasing the time they devote to household responsibilities and their involvement with their families, organizational leaders' and decision-makers' perceptions of the need for family support of their male employees may not have caught up to this trend yet. Addressing this discrepancy through the use of FSSB training to male-intensive occupations could serve as one route to respond to the need for male employees to respond to family responsibilities. An exception is a recent randomized control trial (RCT) study by Kelly et al. (2014) who found that a combination of supervisor FSSB training and group-level Results Only Work Environment facilitated adaptive change processes led to reductions in WFC among a sample of mostly male information technology employees.

Another limitation is the fact that very few of the supervisors returned their self-monitoring cards when the first author returned to obtain supervisor ratings of performance, so we were not able to assess the extent to which behavioral monitoring played a role in the success of this initiative. If we assume that not returning the cards is an indicator of a lack of self-monitoring, then this likely lessened the strength of the intervention, as self-monitoring was found to increase the frequency of FSSB by Hammer et al. (2011). FSSB initiatives in the future could be strengthened by strategies that increase participant involvement in behavioral self-monitoring, such as incentives or clearly emphasizing the importance of self-monitoring for the initiative.

Another potential limitation of the current study is the lack of a RCT design; instead, we observed results based on a comparison of nonrandomized groups (i.e., those employees whose supervisor attended the FSSB training compared with employees whose supervisor did not attend the FSSB training). This limitation, however, should be tempered by the limited existing work-family intervention studies published in the literature (Hammer, Truxillo, et al., 2015) and relative difficulty in carrying out such a study in an organizational setting. Nevertheless, it is important to note that quasi-experimental designs of this nature may be subject to threats to internal validity, such as history, maturation, and selection effects (e.g., Goldstein & Ford, 2002; West, Biesanz, & Pitts, 2000). Concerning history effects, an event occurring within the organization, unrelated to the supervisor training, could be responsible for the results. However, we argue that because both trained and untrained supervisors were dispersed across locations, historical events are less likely to have influenced the intervention group's results and not those of the control group. Additionally, maturation effects could have taken place. Individuals working with supervisors who participated in the training may have differed in the rate at which they were improving on the outcome variables prior to treatment. Relatedly, selection effects may have occurred, as we did not have control over which supervisors attended the training sessions, nor do we know if there are differences between those who attended the training and those who did not. It could be that some supervisors were not able to attend due to their own scheduling conflicts, as this was anecdotally overheard by the researcher delivering the training, although not able to be confirmed. Even so, it is important to recognize that not only are RCT methodologies often difficult to implement, but they may not

always be the most appropriate approach for a particular purpose (Cox, Karanika, Griffiths, & Houdmont, 2007). In the current study, the organization wanted to make the FSSB training available to all supervisors, and not to a randomly selected group. Thus, although the internal validity is lower than if there had been random assignment to experimental and control groups, the external validity of the study is strong.

Regardless of these limitations we argue that this study is one of very few intervention studies conducted in the area of work and family, as recent reviews have noted the dearth of such research and the need for more work-family intervention studies (Hammer, Demsky, Kossek, & Bray, 2015). Additionally, there have been recent calls for, and discussions around, the need to not only publish strong and significant findings, but to also publish complicated, "messy" designs that may not always lead to clean support of all hypotheses. We believe this is an important study that goes beyond correlational data collections and attempts to better understand complex processes in workplaces and ways of intervening to improve the lives of employees and the organizations in which they work. We also note that this study contributes to the literature by going beyond workplace outcomes previously examined in such work-family intervention research and demonstrating effects on outcomes valued by organizations (e.g., job performance), as well as extending the FSSB training effects to a new, and highly significant, occupational group, namely health care, and demonstrating further validation of FSSB training independent of other interventions.

In conclusion, we provide practical evidence that not only does employees' well-being stand to benefit from work-family initiatives, but so do organizations (Macik-Frey et al., 2007). Although these results are limited to one organization, we encourage future research to further explore the conditions within organizations that facilitate the positive effects of this intervention, and argue that these results expand the generalizability of the effects of FSSB training beyond that originally found in the Hammer et al. (2011) study of hourly grocery store supervisors and their employees. Furthermore, the value of using face-to-face training without computer-based training is also demonstrated. The utility of examining differential effects of the four dimensions of FSSB is also noteworthy. For those organizations that are reluctant to provide such initiatives because of fears there will not be economic benefits obtained, they can turn to this research as an example for making the case for business/economic gains from such initiatives. Although organizations do provide some work-family accommodations to their employees, this may in part be due to the desire to obtain social legitimacy because employees are demanding these types of benefits (Kelly et al., 2008), and often may not be successfully integrated into the core culture of the organization. We suggest that organizations can fully support and integrate work-family initiatives, such as FSSB training, with the knowledge that they too can benefit from such programs in the form of better employee performance.

References

- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49, 252-276.

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1–18.
- American Psychological Association. (2014). *Stress in America Survey*. Retrieved from <http://www.apapracticentral.org/update/2014/02-13/teen-stress.aspx>
- Bagger, J., & Li, A. (2014). How does supervisory family support influence employees' attitudes and behaviors? A social exchange perspective. *Journal of Management*, 40, 1123–1150. <http://dx.doi.org/10.1177/0149206311413922>
- Berkman, L. F., Buxton, O., Ertel, K., & Okechukwu, C. (2010). Managers' practices related to work–family balance predict employee cardiovascular risk and sleep duration in extended care settings. *Journal of Occupational Health Psychology*, 15, 316–329. <http://dx.doi.org/10.1037/a0019721>
- Biron, C., & Karanika-Murray, M. (2014). Process evaluation for organizational stress and well-being interventions: Implications for theory, method, and practice. *International Journal of Stress Management*, 21, 85–111. <http://dx.doi.org/10.1037/a0033227>
- Bollen, K., & Lennox, R. (1991). Conventional wisdom in measurement: A structural equation perspective. *Psychological Bulletin*, 110, 305–314. <http://dx.doi.org/10.1037/0033-2909.110.2.305>
- Bollen, K. A., & Ting, K. F. (1993). Confirmatory tetrad analysis. In P. M. Marsden (Ed.), *Sociological methodology* (pp. 147–175). Washington, DC: American Sociological Association.
- Bollen, K. A., & Ting, K. F. (2000). A tetrad test for causal indicators. *Psychological Methods*, 5, 3–22. <http://dx.doi.org/10.1037/1082-989X.5.1.3>
- Britt, T. W. (2003). Aspects of identity predict engagement in work under adverse conditions. *Self and Identity*, 2, 31–45. <http://dx.doi.org/10.1080/152988603090022>
- Britt, T. W., Adler, A. B., & Bartone, P. T. (2001). Deriving benefits from stressful events: The role of engagement in meaningful work and hardiness. *Journal of Occupational Health Psychology*, 6, 53–63. <http://dx.doi.org/10.1037/1076-8998.6.1.53>
- Britt, T. W., Castro, C. A., & Adler, A. B. (2005). Self-engagement, stressors, and health: A longitudinal study. *Personality and Social Psychology Bulletin*, 31, 1475–1486. <http://dx.doi.org/10.1177/0146167205276525>
- Brough, P., & O'Driscoll, M. P. (2010). Organizational interventions for balancing work and home demands: An overview. *Work and Stress*, 24, 280–297. <http://dx.doi.org/10.1080/02678373.2010.506808>
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan Organizational Assessment Questionnaire* (Unpublished manuscript). University of Michigan, Ann Arbor, MI.
- Casper, W. J., Eby, L. T., Bordeaux, C., Lockwood, A., & Lambert, D. (2007). A review of research methods in IO/OB work–family research. *Journal of Applied Psychology*, 92, 28–43.
- Chapman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. *Administrative Science Quarterly*, 36, 459–484.
- Cox, T., Karanika, M., Griffiths, A., & Houdmont, J. (2007). Evaluating organizational-level work stress interventions: Beyond traditional methods. *Work and Stress*, 21, 348–362. <http://dx.doi.org/10.1080/02678370701760757>
- Crain, T. L., Hammer, L. B., Bodner, T., Kossek, E. E., Moen, P., Lilienthal, R., & Buxton, O. M. (2014). Work–family conflict, family-supportive supervisor behaviors (FSSB), and sleep outcomes. *Journal of Occupational Health Psychology*, 19, 155–167.
- Davis, K. D., Lawson, K. M., Almeida, D. M., Kelly, E. L., King, R. B., Hammer, L., . . . McHale, S. M. (2015). Parents' daily time with their children: A workplace intervention. *Pediatrics*, 135, 875–882. <http://dx.doi.org/10.1542/peds.2014-2057>
- Diamantopoulos, A., Riefler, P., & Roth, K. (2008). Advancing formative measurement models. *Journal of Business Research*, 61, 1203–1218. <http://dx.doi.org/10.1016/j.jbusres.2008.01.009>
- Edwards, J. (2011). The fallacy of formative measurement. *Organizational Research Methods*, 14, 370–388. <http://dx.doi.org/10.1177/1094428110378369>
- Fitzmaurice, G. (2001). A conundrum in the analysis of change. *Nutrition*, 17, 360–361. [http://dx.doi.org/10.1016/S0899-9007\(00\)00593-1](http://dx.doi.org/10.1016/S0899-9007(00)00593-1)
- Fitzmaurice, G., Laird, N., & Ware, N. (2004). *Applied longitudinal analysis*. New York, NY: Wiley.
- Friedman, S., & Greenhaus, J. (2000). *Allies or Enemies? What Happens When Business Professionals Confront Life Choices*. New York: Oxford University Press.
- Frone, M. R., & Yardley, J. K. (1996). Workplace family-supportive programmes: Predictors of employed parents importance ratings. *Journal of Occupational and Organizational Psychology*, 69, 351–366.
- Goldstein, I., & Ford, J. K. (2002). *Training in organizations* (4th ed.). Belmont, CA: Wadsworth.
- Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *The Academy of Management Review*, 10, 76–88.
- Hammer, L. B., Demsky, C. A., Kossek, E. E., & Bray, J. (2015). Work–family intervention research. In T. D. Allen & L. T. Eby (Eds.), *Oxford handbook of work and family* (pp. 271–294). New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/oxfordhb/9780199337538.013.27>
- 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>
- Hammer, L. B., Kossek, E. E., Yragui, N. L., Bodner, T. E., & Hanson, G. C. (2009). Development and validation of a multidimensional measure of family-supportive supervisor behaviors (FSSB). *Journal of Management*, 35, 837–856. <http://dx.doi.org/10.1177/0149206308328510>
- Hammer, L., Truxillo, D., Bodner, T., Rineer, J., Pytlovany, A., & Richman, A. (2015). Effects of a workplace intervention targeting psychosocial risk factors on safety and health outcomes: Psychosocial factors and workers health and safety. *Biomed Research International*, 2015. Retrieved from <http://www.hindawi.com/journals/bmri/2015/836967/>
- Hipp, J., Bauer, D., & Bollen, K. (2005). Conducting tetrad tests of model fit and contrasts of tetrad-nested models: A new SAS macro. *Structural Equation Modeling*, 12, 76–93. http://dx.doi.org/10.1207/s15328007sem1201_4
- Johns, G. (2006). The essential impact of context on organizational behavior. *The Academy of Management Review*, 31, 386–408. <http://dx.doi.org/10.5465/AMR.2006.20208687>
- Johnson, T. R., & Bodner, T. E. (2007). A note on the use of bootstrap tetrad tests for covariance structures. *Structural Equation Modeling*, 14, 113–124. <http://dx.doi.org/10.1080/10705510709336739>
- Johnson, T. R., & Bodner, T. E. (2013). Posterior predictive checks of tetrad subsets for covariance structures of measurement models. *Psychological Methods*, 18, 494–513. <http://dx.doi.org/10.1037/a0031606>
- Kelly, E. L., & Kalev, A. (2006). Managing flexible work arrangements in U.S. organizations: Formalized discretion or “a right to ask.” *Socio-economic Review*, 4, 379–416. <http://dx.doi.org/10.1093/ser/mwl001>
- Kelly, E. L., Kossek, E. E., Hammer, L. B., Durham, M., Bray, J., Chermack, K., . . . Kaskubar, D. (2008). Getting there from here: Research on the effects of work–family initiatives on work–family conflict and business outcomes. *The Academy of Management Annals*, 2, 305–349. <http://dx.doi.org/10.1080/19416520802211610>
- Kelly, E. L., Moen, P., Oakes, J. M., Fan, W., Okechukwu, C., Davis, K. D., . . . Casper, L. (2014). Changing work and work–family conflict: Evidence from the work, family, and health network. *Amer-*

- ican *Sociological Review*, 79, 485–516. <http://dx.doi.org/10.1177/0003122414531435>
- Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society for Training and Development*, 13, 3–9.
- 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 support supervisor and organizational support. *Personnel Psychology*, 64, 289–313. <http://dx.doi.org/10.1111/j.1744-6570.2011.01211.x>
- MacCallum, R. C., Wegener, D. T., Uchino, B. N., & Fabrigar, L. R. (1993). The problem of equivalent models in applications of covariance structure analysis. *Psychological Bulletin*, 114, 185–199. <http://dx.doi.org/10.1037/0033-2909.114.1.185>
- Macik-Frey, M., Quick, J. C., & Nelson, D. L. (2007). Advances in occupational health: From a stressful beginning to a positive future. *Journal of Management*, 33, 809–840. <http://dx.doi.org/10.1177/0149206307307634>
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. New York, NY: Erlbaum.
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614. <http://dx.doi.org/10.1146/annurev.psych.58.110405.085542>
- Matos, K., & Galinsky, E. (2014). *2014 National Study of Employers*. Retrieved from <http://familiesandwork.org/downloads/2014NationalStudyOfEmployers.pdf>
- Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology*, 71, 618–629. <http://dx.doi.org/10.1037/0021-9010.71.4.618>
- National Institute for Occupational Health and Safety. (2013). *NIOSH program portfolio: Healthcare and social assistance*. Retrieved from <http://www.cdc.gov/niosh/programs/hcsa/>
- Noblet, A. J., & LaMontagne, A. D. (2008). The challenges of developing, implementing, and evaluation interventions. In S. Cartwright & C. L. Cooper (Eds.), *The Oxford handbook of organizational well-being* (pp. 466–496). New York, NY: Oxford University Press.
- 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>
- Olson, R., Crain, T. L., Bodner, T. E., King, R., Hammer, L. B., Klein, L. C., . . . Buxton, O. M. (2015). A workplace intervention improves sleep: Results from the randomized controlled Work, Family, and Health Study. *Sleep Health*, 1, 55–65. <http://dx.doi.org/10.1016/j.sleh.2014.11.003>
- Olson, R., & Winchester, J. (2008). Behavioral self-monitoring of safety and productivity in the workplace: A methodological primer and quantitative literature review. *Journal of Organizational Behavior Management*, 28, 9–75. <http://dx.doi.org/10.1080/01608060802006823>
- Perry-Jenkins, M. (2005). Work in the working class: Challenges facing families. In S. M. Bianchi, L. M. Casper, & R. B. King (Eds.), *Work, family, health, and well-being* (pp. 453–472). Hillsdale, NJ: Erlbaum.
- Rappaport, R., Bailyn, L., Fletcher, J. K., & Pruitt, B. H. (2002). *Beyond work–family balance: Advancing gender equity and workplace performance*. San Francisco, CA: Jossey-Bass.
- Scharf, T., Chapman, L., Collins, J., Limanowski, J., Heaney, C., & Goldenhar, L. M. (2008). Intervention effectiveness evaluation criteria: Promoting competitions and raising the bar. *Journal of Occupational Health Psychology*, 13, 1–9. <http://dx.doi.org/10.1037/1076-8998.13.1.1>
- Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., . . . Lu, L. (2004). A cross-national comparative study of work–family stressors, working hours, and well-being: China and Latin America versus the Anglo world. *Personnel Psychology*, 57, 119–142. <http://dx.doi.org/10.1111/j.1744-6570.2004.tb02486.x>
- Tetrick, L. E., Quick, J. C., & Gilmore, P. L. (2012). Research in organizational interventions to improve well-being: Perspectives on organizational change and development. In C. Biron, M. Karanika-Murray, & C. L. Cooper (Eds.), *Improving organizational interventions for stress and well-being* (pp. 59–76). London: Routledge.
- West, S. G., Biesanz, J. C., & Pitts, S. C. (2000). Causal inference and generalization in field settings: Experimental and quasi-experimental designs. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 40–84). New York, NY: Cambridge University Press.
- Willemse, B. M., de Jonge, J., Smit, D., Depla, M. F., & Pot, A. M. (2012). The moderating role of decision authority and coworker- and supervisor support on the impact of job demands in nursing homes: A cross-sectional study. *International Journal of Nursing Studies*, 49, 822–833. <http://dx.doi.org/10.1016/j.ijnurstu.2012.02.003>
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601–617. <http://dx.doi.org/10.1177/014920639101700305>

Received June 30, 2014

Revision received June 16, 2015

Accepted October 7, 2015 ■

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at <http://notify.apa.org/> and you will be notified by e-mail when issues of interest to you become available!