Designing Work, Family & Health Organizational Change Initiatives☆,☆☆

Ellen Ernst Kossek, Leslie B. Hammer, Erin L. Kelly, Phyllis Moen

EACH PERSON HAS THE SUPPORT THEY NEED TO HAVE CONTROL OVER THEIR WORK AND LIFE, AS LONG AS THE WORK GETS DONE

What if all workplaces were designed to change organizational cultures and the structure of work to truly support employees' work and family needs and reduce conflicts? How can employers and researchers create initiatives to improve employment settings to prevent work—family conflict and burnout? Despite a burgeoning literature and the proliferation of work—life consultants and policies, work—family research has had relatively limited impact on how work is managed in many companies today. Yet work—family and personal life conflicts and stress are growing management and public health concerns that impact employees, employers, and families across the globe.

Work—family conflict (from work to families and from families to work) is an increasingly critical issue in today's workplace. It has been consistently linked to adverse mental, behavioral, and physical health outcomes, including cardiovascular disease risk, sleep quality, depressive symptoms, burnout, workplace safety, obesity, and addictive behaviors (i.e., smoking and alcohol use). Work—family conflicts are also related to employee productivity, turnover, absenteeism, well-being, and engagement.

Despite the importance of work—family conflict for health and productivity, researcher-organizational partnerships have not fostered major change in practice. Poor quality studies have weakened the business case. For example, many studies simply compare workers with and without work—family conflict, overlooking evaluation how the design of workplaces may be fostering conflict. Or policies are introduced with poor implementation such as weak linkage to work procedures, career systems, or management practice. These gaps have resulted in limited employer evidence for prioritizing systemic reduction in work—family conflict in the way work is organized. It has also slowed the diffusion of evidence-based practice.

Employers need to use best practice approaches, such as randomized control trials (use of control and experimental groups) of interventions aimed at preventing or reducing work—family conflict in order to foster healthy workplaces. Top management needs to take an active role in preventing work—family stress in how work is managed and organized.

Reviews published by the authors of this article in the *Academy of Management Annals* and *Personnel Psychology* underscore the need for organizational interventions specifically focusing on job stress and improving relationships between work and employees' family and personal lives. While rigorous change partnerships are clearly needed, how do leaders and scholars go about designing and implementing them?

OBJECTIVES

In this paper, we describe the development of the most comprehensive work—family organizational change initiative to date in the United States. Our goal is to share an in-depth case study with examples and critical lessons that emerged. We draw on our years of experience working with major employers from two industries representative of today's workforce (health care and IT professionals). Employers and applied researchers can draw on this study and lessons to create, customize, and deliver evidence-based interventions to improve work, family and health.

THE WORK, FAMILY AND HEALTH NETWORK INTERVENTION

The Work, Family and Health Intervention is a comprehensive multi-faceted organizational intervention that is designed to foster a healthy psychosocial work environment by preventing stressors in the organization of the workplace that can lead to work—family conflict.

A national interdisciplinary team of researchers developed the intervention. The Work Family and Health Network (WFHN) is a collaboration of scholars with backgrounds in public health, medicine, family studies, organizational psychology, occupational health psychology, sociology, economics and many other fields. The intervention benefited from having multiple disciplinary scientific perspectives on contemporary work—family conflict challenges. It also was informed by employee and employer advisory groups providing practical stakeholder input.

Below we describe a series of pilot studies conducted to evaluate the effectiveness of intervention components. To create adaptive design, we also assessed the contextual influences on work—family conflict across the health care and IT (information technology) industries. We describe the key intervention features and design stages, followed by the seven principles that emerged (see Table 1 for a summary with examples), as a template for work—life intervention research and practice.

This intervention is innovative, as it is designed to proactively change work conditions to reduce work—family conflict. Traditionally, most work—life policies and practices are reactive, ad hoc, or stigmatize employees with work—life stresses. Typically they are viewed as an individual accommodation, not mainstream work practice. They do not preemptively eliminate the stress caused by work—family conflict in the general work environment of all workers across an entire organization.

KEY INTERVENTION COMPONENTS FROM PILOT STUDIES

Early pilot studies were useful for identifying whether key factors identified as important in the work—family literature could be delivered in different occupations. The first is to increase employees' control over their work schedules and a focus on results, not time. The second is to increase work—family specific social support through supervisor behavior training.

Schedule control and results orientation. One set of studies led by sociologists Erin Kelly and Phyllis Moen at the University of Minnesota focused on a natural experiment. They examined a corporate-led initiative called ''ROWE'' (Results Oriented Work Environment) targeting professionals at Best Buy's headquarters in Minneapolis. ROWE aimed at increasing employees' control over their work time and fostering team-level job redesign keying in on results, not time spent in meetings or at the office. This is considered a ''natural'' experiment because ROWE would have occurred whether or not the researchers studied it.

The researchers chose to assess the effects of ROWE because it aligned with concepts developed by seminal job stress researchers Robert Karasek and Tores Theorell on the importance of employees' job control, for health. The researchers extended this concept to control over time. The pilot studies showed that work teams following ROWE practices had higher schedule control, lower work—family conflict, lower turnover intentions, and improved health behaviors, than other teams.

Work—family specific social support through supervisor behavior training. The other main intervention pilot study was led by Leslie Hammer of Portland State University and Ellen Ernst Kossek of Michigan State University (now at Purdue University). The researchers partnered with Spartan Stores in Michigan and Ohio to develop, validate, and evaluate the Family Supportive Supervisor Behavior (FSSB) training and self-monitoring intervention.

The self-paced, computer-based and behavioral self-monitoring intervention was designed to increase supervisors' level of family supportive supervisor behaviors. Seminal theorists Sheldon Cohen and Thomas Wills suggest increased social support perceptions have positive psychological, well-being and performance effects. The researchers operationalized behaviors indicative of manager social support for family and non-work roles.

Behavioral science researchers W. Kent Anger and Ryan Olson at Oregon Health Sciences collaborated on the development of the FSSB training. The content was based on ratings of employee experience with four supervisor behaviors that was validated in another study led by Hammer and Kossek. They are:

- **Instrumental** — behaviors helping workers manage schedules and working with employees to solve schedule conflicts. For example, helping an employee find a replacement, if absent.
- **Emotional** — behaviors demonstrating a worker is being cared for, and their feelings are being considered. For example, increasing face-to-face contact with

Table 1 Seven Design Principles for Organizational Work, Family and Health Interventions.

Intervention Design Principles	Description	Intervention Examples
1. *Take a primary prevention systemic approach to organizational change management*	• Leverages individual and organizational approaches to change the leaders and organizational structure to prevent work—family conflict before it occurs in work organization • Focus on changing work site and management approaches to the organization of work that may create work—family conflict in work structure and culture • Examine formal and informal aspects of the organization of work (e.g., formal policies and informal cultural) for holistic alignment to enhance resources across work—family systems for a "dual agenda"	• Proactively teaches individual supervisors improved leadership behaviors to increase social support for family and performance (Leader) • Structural job redesign to increase control over work time, empower worker's autonomy, and to reduce low value work (Organizational) • Align formal supervisor performance goals with supportive organizational cultural redesign practices jointly supporting work and family
2. *Identify theoretically-based key intervention ingredients that target work—family conflict reduction*	• Increase socially supportive behaviors for personal/family and performance roles • Increase employees' perceived control over work and work time • Improve the design of the organization of formal and informal work processes and cultural norms to become results oriented, reducing low value work and nonproductive face time.	• Family Supportive Supervisor Behaviors (FSSB) manager/supervisor training • Employees given more say over when and how work is done and encouraged to help each other • Group training to de-stigmatize comments and judgments about how face time relates to productivity
3. *Include formative research and identify comparative evaluation groups leading to evidence-based research findings*	• Evaluate intervention components in pilot studies • Validate measurement of intervention change targets • Pilot in several contexts Identify control and experimental groups	• Pilot studies conducted in lower wage and higher wage industries • FSSB validated Schedule control and low value work evaluated • Randomized field method
4. *Use Interdisciplinary design teams*	• Integrate knowledge and various perspectives from multiple disciplines • Can combine a positive and negative approach to workplace stress and assumptions about change processes related to the reduction of work—family conflict as an occupational health pathway • Theoretically comprehensive approaches enhance resource-enhancing strength of intervention	• FFSB Training focused on increasing individual leader demonstration of work—family and performance specific supportive behaviors and self-monitoring (a psychological view) • Group empowerment social change activities, focusing on empowering workers to have greater control over how and when work is done (sociological & organizational behavior focused)
5. *Bottom up participation with strong management support for the intervention*	• Combination of high employee participation with top down management buy-in and support	• Highly engaging, participative employee sessions • Management support needed for training delivery during work time
6.*Interventions should be customizable and adaptive in design*	• Adapting intervention content and delivery across socio-economic work, family and organizational contexts	• Training delivery (e.g., number of sessions) and examples of control and support at the two contrasting industries differed.
7. *Plan and devote resources to promote intervention transfer to the work environment*	• Plan for transfer of intervention experiences during and post facilitation	• "Homework" between sessions • Do Something Scary/Different self-monitoring • Moving Forward session at Leef four weeks after sessions ended

employees, asking how employees are doing, or communicating genuine concern about employees' work/life challenges.

- **Role modeling** — behaviors that show how a supervisor is taking care of her or his own work/life challenges. For example, discussing taking time out to attend a child's school activities and talking about one's own family. Or leaving work at reasonable hours, and showing that managers value involvement in non-work life.
- **Creative work—family management** — behaviors aimed at redesigning work to support the conflicting employee work—life demands in a manner that is a win—win for both employees and employers. For example, promoting cross-training and the ability for shift trades to jointly enable employee scheduling flexibility needs and work coverage.

The training combined theory on knowledge dissemination with behavioral role-modeling principles delivered in programmed instruction. The program of behavioral role-modeling training draws on five cumulative steps identified by psychologist P.J. Taylor and colleagues in a review. The first is to have a clear description of the behaviors or skills to be learned. The second step is to develop models of effective use. Third, create opportunity to practice the behaviors. Fourth, provide feedback and social reinforcement. Fifth, use motivators to foster on-the-job transfer.

The training intervention was delivered by Hammer and Kossek and their team in a randomized control trial field study at 12 grocery and drug stores. The use of a randomized

approach for work—family training was pioneering, as it was one of the first work—family studies to do so. Most work—family change efforts are only studied in more innovative firms or do not use control and intervention treatment groups. This makes it harder to know if change is due to the initiative or the overall better context. Replication is also more difficult as it can be difficult to adapt initiatives from contexts that are highly open to work family change to less positive settings.

INTERVENTION DESIGN, TRAINING CONTENT, AND STAGES

Hammer, Kossek, Kelly and Moen formed the Network's intervention team. Together they integrated key concepts from the pilot studies (shown in Figure 1) to develop the WFRN intervention and supporting training content (Figure 2). Examples include improving the work environment to increase employees' control over their schedules, a focus on results-oriented time use and the four FSSB behaviors. New content was added, such supervisor performance support behaviors in the managerial training to better link FSSB training to the results orientation of ROWE. For example, besides FSSB behaviors, managers also set goals and tracked how often they provided job direction and helped prioritize work, or gave feedback and coaching on good and bad work behaviors.

The integrated WFRN intervention was called STAR (Support. Transform. Achieve. Results.). It focused on whole
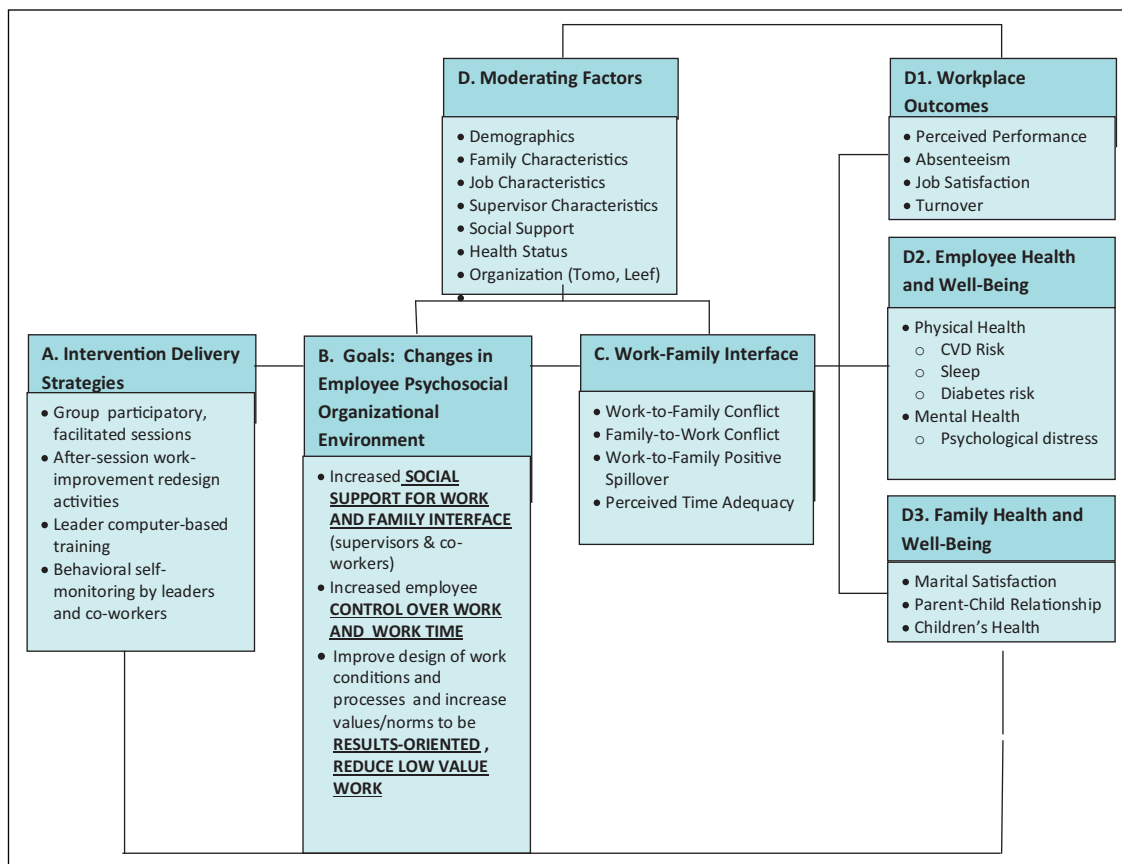

Figure 1   Summary of organizational intervention components, goals and outcomes.
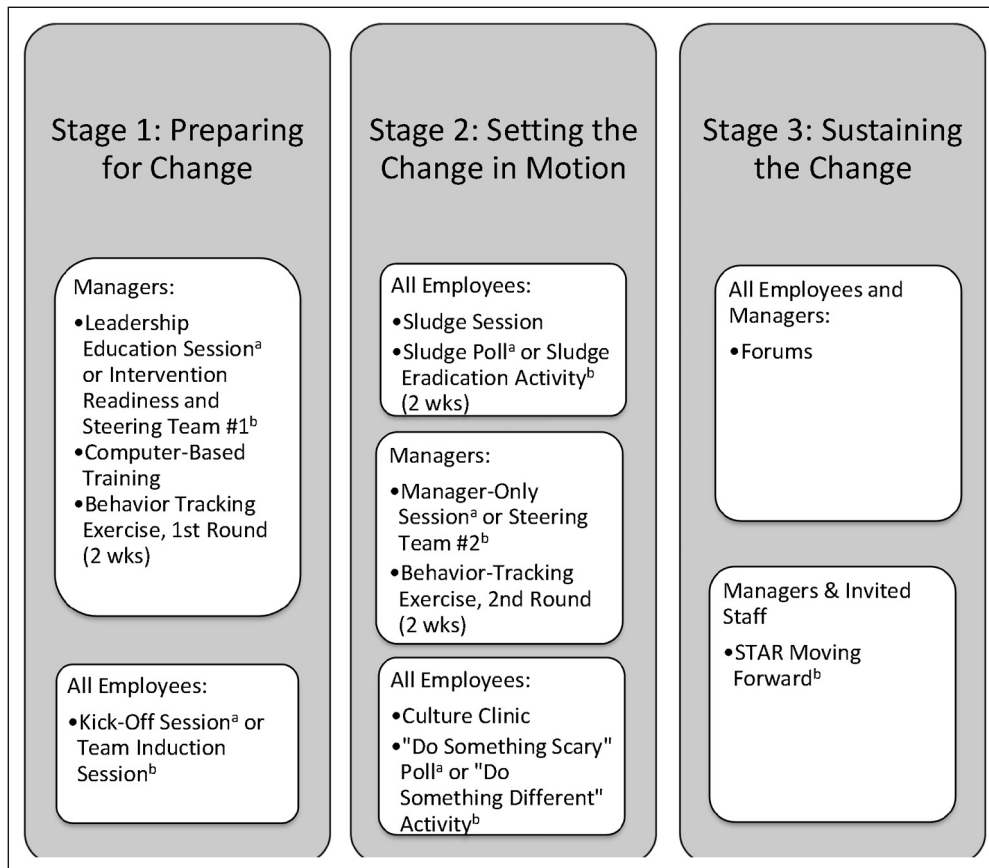
Figure 2   Intervention stages and activities distributed over 4 months. (a, Only in information technology industry; b, Only in health care industry.)

systems change in the level of work—family conflict emanating from the work environment of an entire work site or work unit. STAR targeted multiple levels of change, including elements related to the

- organization (work—family culture, leader and member behaviors, and the structure of work);
- work teams and units (cross-training); and
- individual (leader behaviors and self-monitoring).

STAR was rolled out in a randomized fashion in half of 30 nursing homes in a large long-term health and specialized care company (called Leef), and several dozen teams in the IT unit of a *Fortune 500* company (called Tomo). STAR included common components in each industry: (1) participatory face-to-face sessions with staff and managers; (2) participatory face-to-face sessions for only managers and supervisors; (3) on-the-job activities for all employees to reinforce learning from sessions; and (4) manager-only computer-based training and behavioral self-monitoring.

The researchers and consultants worked together to prepare a facilitators' guide for STAR participatory sessions, using semi-structured scripts as well as interactive activities. The sessions encouraged supervisors and employees (either jointly or separately) to reflect on current practices and identify strategies to increase supervisor support, increase work-time control and results orientation, and reduce work—family conflict while continuing to meet or exceed business goals.

A computer-based training protocol and supervisor self-monitoring protocol were developed for the FSSB and performance behavioral training. STAR materials are available on a public website www.workfamilyhealthnetwork.org.

Adaptive design strategy across occupational contexts. The intervention followed similar goals in each industry, yet was *adapted and customized* to modify content, timing, and sequencing. This was challenging because the different intervention features had been developed in unique contexts. For example, how could the ROWE intervention, which was developed for white-collar corporate professionals, be adapted to hourly workers in a 24-7 patient-centered work system? How should the FSSB training, developed largely in an hourly workforce setting, be adapted for a professional IT context? What does work-time control look like for lower-level hourly workers with place-bound jobs, compared with IT workers who have high connectivity via cell phones and the Internet?

Intervention stages. Figure 2 describes the three stages used to organize the delivery of STAR activities. Stage 1 is preparing for the change, which focused on the organization's top management and leadership team. This included manager-only participatory sessions, computer-based supervisor training, and a first trial of self-monitoring supportive behaviors. Stage 2 focused on setting the change in motion using joint manager and employee participation. These sessions reinforced the concepts of support and control. Managers and employees were encouraged to put these concepts

into practice within their units or teams. For example, employees discussed how work procedures might be altered to increase support for work—life and still ensure the work gets done. Stage 3 involved activities to sustain change by having all participants discuss what people had tried to do differently, their successes and challenges, and their plans for next steps. Below we draw on this comprehensive case study, and share seven emergent design principles (Table 1). We share how they map to STAR in order to encourage applied researchers and scholars to select relevant guideposts for their work—family and health change initiatives.

WORK—FAMILY AND HEALTH INTERVENTION DESIGN PRINCIPLES

Principle 1: Take a systemic and primary prevention approach to organizational change management. A primary prevention approach focuses on eliminating the work hazard in the work context before it impacts health, yet relatively few work—family interventions follow this approach. Organizational-focused interventions seek to modify work structure to reduce exposure to or eliminate job stress or conditions that promote unhealthful work—life attitudes and behaviors. This implies implementing system-wide interventions to change the work context to reduce work—family stressors before they occur. One example is altering work practices across the company to give employees greater control over their work schedules. Another illustration is training managers and coworkers to provide greater support for family and personal life. Clarifying and improving job design to focus on quality and critical tasks and to improve processes, and to reduce unnecessary workload is a third possible change.

Yet rather than making flexibility and work—life support a normal way of doing business, most companies target policies and stress programs toward individuals with salient work—life needs such as young mothers. This can marginalize users. Such an approach does not prevent job-induced work—family conflict and can actually result in stigmatization and backlash, undermining change efforts intent.

Individual approaches *can* be effective if they are linked to multi-level systemic organizational change strategies. Psychologist Semmer's recent review of 90 studies on job stress interventions classified change goals as modifying aspects of the organization (O); the individual employee (I); or both factors (OI). They found that interventions targeting both organizational and individual levels were highest in effectiveness.

Alignment can also refer to integrating *informal organizational culture and norms with formal structure, policies and practice*s. Systemic alignment can also apply to balance in the actual content of the intervention. We found a dual agenda was needed in content, a simultaneous focus on improvement in work and family support to improve the whole employee's life system.

Unfortunately, many work stress interventions try to improve work—family issues or health, but overlook performance issues. Yet clear and consistent and well-defined performance expectations can enhance work—family and personal life relationships, by making work-time more effective. This personally benefits workers by allowing them to focus on work tasks that matter most, reducing stress, overtime and conflicts.

Principle 1 applied: The Work, Family and Health Network intervention is comprised of components that encourage the prevention of work—family conflict by changing the structure of work for all employees in a team or unit. A core message of STAR was that it is appropriate to systematically look at the way work is done — including when, where, and how work is performed. The goal is to evaluate what changes might increase employees' effectiveness on the job while also allowing them to meet personal commitments and take care of themselves.

For example, many employees in the IT organization setting had long commutes to the office (more than an hour each way), which severely cut into both their work and family time. STAR's systematic fostering of higher schedule control enabled employees to alter their start and stop times in order to commute to work at times other than rush hours, decreasing their travel time to and from the office. Increased flexibility in the form of remote work also enabled IT employees to sometimes avoid a commute altogether by working from home or other non-work sites.

An example of a systemic approach to improving job and personal performance involved shifting night conference calls for the IT employees who worked with others offshore across time zones. Before STAR, when they had conference calls during the night or early morning hours, employees were still expected to be in the office by 9 a.m. to work a traditional day. Many described themselves as too tired to accomplish much. STAR enabled employees to vary schedules to adapt to global work demands, by working in optimal times and places.

A holistic prevention approach also moves away from only targeting work redesign for individuals with work—family needs — a reactive approach that could stigmatize them. STAR was designed to improve the entire work site or group. STAR's primary prevention approach to decreasing work—life stress changed the overall work environment through modifications in the structure of jobs for all workers.

For example, rather than only letting employees with child care needs have access to adjust starting and ending work schedules, all employees with modifiable jobs were given the option to explore flexible start and end times to their work day. In the healthcare setting, a nursing assistant might be able to change her shift so she works 7:15—3:15 instead of 6:45—2:45. This could be achieved as long as the person working overnight can stay 30 minutes later and the person starting a shift in the afternoon is willing to start and end her shift 30 minutes later as well. In the IT office setting, this would look different — sometimes with a range of starting and ending times, rather than a 9—5 (or more likely, 8—6:30) work day.

In both organizational settings, STAR targeted the entire work environment to enable all employees to be more easily able to adapt their schedules to fit diverse personal needs (getting a child off to school, doctor's appointment), while also ensuring that their work is accomplished in a timely way.

Principle 2: Identify theoretically based intervention ingredients targeting the reduction of work—family conflict. Given that most work family initiatives are adopted without first analyzing job factors inducing work—family conflict, we suggest interventions should be designed to

focus on altering key pathways related to work—family conflict that link to well-being and health. They are:

Control over work time and schedule, and results orientation. Control over work time (or schedule control) refers to individual autonomy over when and sometimes where work is conducted. When applied to work—family issues, increasing schedule and work time control enhances employees' abilities to rearrange work and family roles to reduce work—family conflicts. A results orientation involved eliminating inefficient work processes and giving clear performance expectations and coaching.

Supervisor social support for work and family. Research suggests that higher social support from supervisors is a resource that consistently buffers against conflicts between work and family demands. Family-supportive supervisors are those who appreciate and have an understanding for employees' demands outside of the work domain and accommodate employees' efforts to seek balance between these roles. Supervisors' actions affect the extent to which employees are buffered from work—family conflict by supporting them to better manage work and family roles in order to be successful in each. Reviews by Ellen Kossek and colleagues found that family-specific supportive supervision has a greater impact on work—family conflict than generally supportive supervision. They also found that employees' perceptions of their own supervisors' family supportiveness determines whether they are likely to perceive their companies as family supportive, and is more important than offering underused work—family policies on the books.

Principle 2 applied. The pilot studies provided evidence that work—family interventions must target three key ingredients. They are (1) increasing control over work time; (2) increasing supervisor social support for family and job effectiveness; and (3) improved work design processes and culture supporting results orientation and removal of low value work.

STAR targeted control and support for hourly nursing assistants by leading to changes such as the initiation of a master schedule for the holiday season or summer vacations. Rather than having a scheduler make up a master work schedule without employee input, all workers were allowed to put in their first choice for time off.

In the IT workforce, teleworking became more widely available and self-managed as long as the employee's work output was maintained. The individual also had to be accessible and attend key meetings. Sometimes control led to new life arrangements. Rather than take an unpaid leave, one employee was able to telework from another state while her elderly mother was recovering from health problems.

A Tomo employee's remarks illustrate the importance of having an intervention target time control in job design and work culture:

> I think if people feel like they're more control of their life and control of their time, it allows them to basically say…if I want to take off at 3:00 today, I can do that. I don't have to send a note to my boss saying I'm cutting out early today at 3:00 because I'm going to go…watch my kids'…activity this afternoon or I've got to leave early because I've got a doctor's appointment.

Supervisors and co-workers also increased verbal social support for the meshing of work and personal time use. Employees were encouraged to be more open about personal needs and their families and ask for and work out support to exercise, attend school conferences or simply stay home when sick.

In both settings, work processes were also improved toward results orientation. In the nursing homes, employees began to cross-train and help each other out and had communication boards on each floor to improve information sharing. In the IT settings, face time at unproductive meetings was reduced.

Principle 3: Include formative research and identify comparative evaluation groups. While the popular press offers employers a multitude of work—life policy options, we've noted there is very little research on these as effective change management interventions. The only known evaluation of work—family interventions using a randomized controlled trial (RCT) design is the FSSB pilot study informing STAR. Since many work—family interventions — such as flextime and telework — are implemented with little use of scientific experimental design principles, or pilot work to identify barriers to implementation, formative research will determine if the intervention is tapping into change targets. It also allows for the identification of meaningful evaluation groups for scientific evaluation of intervention effectiveness.

Principle 3 applied: STAR was based on formative work evaluating within and across industry comparisons. For instance, the idea of changing *where* work is done was not relevant to most nursing home employees. Yet *how* work is done became more of a focus for STAR's largely hourly workforce. STAR targeted how employees interact with managers and with other employees. There was emphasis on process issues and working more productively and efficiently together, rather than on virtual working, unlike IT.

Even within the IT workforce, it was also important to compare employees in STAR with those who continued in the traditional work environment *across each function.* Formative research, such as interviews with executives and input from an internal study advisory group, revealed that company insiders might write off results if all STAR groups happened to be in one function. For example, if STAR was done only with developers rather than those who tested and supported applications once they were launched, it might limit acceptance. The WFRN team addressed this by randomizing groups using an adaptive randomization scheme. This ensured that there would be some STAR groups comprised of developers, some with testers, and some in a support function. This example reveals the importance of knowing the comparison groups that will be the most helpful to insiders as they learn from the study.

For both sites, the WFRN pilot studies assessed the comparative effectiveness of the intervention components before full implementation. This provided evidence of linkages to work—family conflict reduction and improved health and work outcomes.

Principle 4: Use interdisciplinary design teams. Most work—family and occupational health interventions are grounded in one primary discipline and its core philosophical approach to deliberate change. But an interdisciplinary approach is more likely to produce an effective intervention, since it frequently integrates knowledge from different disciplines that is necessary for change to occur. Interdisciplinary work fosters greater synthesis between a psychosocial, disease-oriented focus on *preventing* workplace influences

on stress, and approaches that *facilitate or promote* lower stress.

Alleviating workplace sources of occupational stress can be synergistic with designing workplaces to foster healthy workers on and off the job. An example would be interventions that include both health promotion and health protection, as Harvard researcher Gloria Sorensen and colleagues argue. Given discipline-specific biases/approaches and the fact that enacting workplace change to enhance work, family and health is a socially complex phenomenon, intervention teams that utilize multi-disciplinary knowledge in design are more likely to integrate multiple strands of change: preventive and facilitative, and individual and organizational change targets.

Principle 4 applied: The multiple perspectives from the WFRN interdisciplinary team and the different occupational settings resulted in a holistic, comprehensive approach to the change initiative. For example, sociologists on the team initially emphasized increasing schedule and time control, while organizational behavior scholars focused on enhancing leadership supportive behaviors. Those in public health emphasized the importance of collecting data addressing health risks. STAR included all these elements.

Further, most change efforts focus on the work *or* the family realm. STAR also focused on work—family and health from not only the employment perspective but also the family perspective, with data collected on spouses, children, employees and managers for a complete picture of change effects.

Principle 5: Bottom up participation with strong management support for the intervention. Interventions should be both *bottom up* (employee initiated and supported) *and top down* (top management initiated and supported), yet most work—life interventions are largely one or the other. Generally, work—life policies and initiatives are typically not viewed as change-oriented participatory endeavors. Effective designs should combine high employee participation with top down senior management buy-in and support for the change. Getting management buy-in to conduct the intervention during work time and having leaders attend joint meetings with employees are two ways to promote bottom up and top down support.

High involvement of employees in change processes has emerged as a best practice. It helps to ensure that the intervention is focused on issues that are most relevant to workers. It also makes it more likely the intervention will be accepted by members and integrated into the organizational culture. High involvement also should reduce undermining of change during implementation. Such approaches empower employees to define the most pressing workplace problems, give input to create change strategies, and experiment with changes they see as beneficial.

Principle 5 applied: STAR facilitated sessions encouraged employees to develop and implement alternative approaches to getting work done and culturally interacting. For example, STAR participatory sessions included a role-play exercise to demonstrate how to "eradicate Sludge" — the negative toxic language often heard in the workplace judging how someone is spending their time. For example, "I wish I could come in late." Sludge can also be phrased in ways that seem positive, honoring folks for spending inordinate amounts of time on work projects. For instance, when people are given awards, what is frequently said are things like "he slept under his cube." Or "he spent only one weekend this month with his family." The message conveyed is the more time put in on the job, the more valuable the employee.

Session participants came to recognize how the tone, manner, and language used with coworkers can negatively impact the work environment and, as a consequence, can impact the well-being of employees at work and at home. Both managers and employees participated in these sessions, so this culture change in how people interact permeated whole teams. The strategy of asking: "Is there something I can help you with?" or "Is there something you need?" in response to Sludge-like comments, was used by managers to employees, coworkers to one another and employees to managers. Employee involvement continued, in many of the sites and work groups, after the sessions ended, and many teams put STAR discussions on their regular staff meetings for several months after training. In the IT workforce this included discussions about their experiments working different hours or remotely and coordinating how they might cut back on unproductive meetings. In the nursing homes, communication boards were put on some floors to help foster better collaboration.

At the same time, STAR required on-site management to encourage employee session attendance and also was open to different approaches encouraged by employees. Support from the participating organizations was critical, as sessions took place during work time, and sometimes led to overtime costs in the nursing home environment.

Principle 6: Interventions should be customizable and adaptive in design. Interventions must be customized and adaptive in implementation to ensure the content, delivery and examples fit the key issues of a particular workforce or organization. Even if the key intervention ingredients included address work—family conflict (i.e., control, support, culture and job redesign) and are the same across workforces, how they are illustrated and explained can be modified to increase identification with the change effort. Consider how an intervention might need to be customized for lower wage service and high tech professional workforces. An intervention targeting increased supervisor support and schedule control for a grocery store worker will allow the employee to be able to call into and miss work when their child is sick and not have it count against the store discipline and absenteeism policy. In contrast, an intervention intended to increase control and support for salaried employees might emphasize piloting a new understanding that individuals may choose to telework several days a week when they can work just as efficiently or more efficiently that way.

While this notion of customization may seem to be common sense for some, the idea of adapting the interventions across sites may be novel in the management and scientific worlds, when comparative analysis and common measurement are often goals. In other words, adaptation across sites does not fit neatly into scientific paradigms that reinforce replication. It also does not fit easily into mandated nationwide or global business strategies where common change management and benchmarking are being done to leverage performance indicators.

Most occupational health and work—family interventions are not sufficiently customized to address variation in work

processes, human resource strategies, workforce types, and job demands. It can seem less time intensive and easier to roll out the same program exactly the same across a firm. Yet this can weaken the potential for lasting organizational change.

Principle 6 applied: STAR was customized and adapted to include content that was relevant to participants and the nature of work and industries. An example is in the type of job redesign and change focus of the intervention principles in each industry. We've note the IT employees could be empowered to work wherever and however they want (mostly). Yet health care employees' focus was more centered on control over processes and how work is done or schedules are made.

Customization was also used when discussing the meaning of "workplace flexibility" in training. Examples that are applicable to employees who can work remotely or flex their hours informally do not apply to a workforce that is responsible for the 24-7 care of people. Health care workers, for example, must abide by legal requirements determining how many workers need to be in a building at a given time to ensure safety. As one Leef employee commented: "Health-care workers can't really go outside and sit under a tree for 20 minutes and read a book... It's just different you know..." Since a health care worker in a nursing home often cannot take time off during a shift without impacting coverage. Workers were educated to implement any changes in a way that was "safe, legal, and cost-neutral."

Customization also warranted careful consideration of examples used and approaches to facilitating sessions. For example, pictures and examples from IT or health care were used in presentations and session content. For the IT work force, discussions of coordinating with offshore staff (located primarily in India) were incorporated, as part of discussing the timing of work.

Intervention delivery was also customized, so in the IT work force, virtual training sessions and the company intranet were used. This allowed employees working in different locations to participate in the same intervention conversations as their managers and peers. For the health care work force, where most did not have computer access, posters were used for employee activities and notification of session schedules. Since work was 24-7, scheduled sessions were held during multiple shifts.

Principle 7: Plan and devote resources to promote intervention transfer to the work environment. It is important to include resources in intervention design to ensure transfer of the changes specified in formal intervention activities to workers' jobs. This is a critical step that many intervention studies and consultants overlook, making it hard to sustain quality of work—life change experiments. This gap is likely because the transfer of the intervention is essentially a knowledge transfer process. It is a social activity where the research knowledge needs to be incorporated by the organization and its members as relevant to its mission. While the researchers and facilitators may believe that the work—family intervention targeting a healthier workplace should be a priority, workers and management may not understand how to incorporate this into routines or consider work—family conflict.

Principle 7 applied: To encourage incorporating the ideas from STAR into the way work is done over the long term, the Intervention included structured "homework" activities between sessions. In the case of the health care industry, a check-in meeting was held about four weeks after the last facilitated session, and was facilitated by the nursing home administrator. This session was also attended by managers and some key employees ("champions" of the Intervention initiative). It was critical that someone internal facilitate this transfer meeting, not an outside consultant, so that the group felt ownership of the changes that were being implemented.

There were also exercises at critical times during the intervention delivery that help workers transfer newly learned knowledge and skills to their jobs and their day-to-day routines. Self-monitoring activities motivated transfer by using goal setting, followed by repeated self-observation, evaluation, and recording of behaviors. Self-observed gaps between actual behaviors and goals (or social norms) activated psychological and behavioral motivational processes. Employees and managers were also encouraged to hold additional self-led meetings in between formal intervention events, during which they shared perspectives, discussed why the intervention was needed and checked in on perceptions of how it was going.

FUTURE CHALLENGES

Intervention scholarship in real-world settings is hard to do, but critical to understanding the working conditions that reduce work—family conflict and promote health. As Urie Bronfenbrenner said, to really understand something, try to change it. We believe that future research and practice should build on and expand upon these principles and examples from the WFRN case study.

Future research should also include evaluations of the actual intervention process. That is, information on the integrity of intervention implementation and on how the unfolding process of intervention delivery might shape change trajectories and outcomes. Collecting data on participation rates and how the intervention is presented and enacted provides important information for evaluating intervention fidelity and effectiveness. This will allow for comparative effectiveness analysis of which intervention components are more effective.

Scholars and practitioners need to shift the lens from a focus on individual strategies to reduce work—family conflict after it occurs toward prevention-focused organizational change initiatives to reduce work—family conflict in the workplace. Such an approach moves work—life initiatives from the margins to the mainstream of current organizational practice.

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Ellen Ernst Kossek holds the Basil S. Turner Chair of Management at Krannert School of Management and is the inaugural research director of the Susan Bulkeley Butler Center at Purdue University. Elected the second president of the Work Family Researchers Network, and an APA and SIOP Fellow, she has won awards for advancing research and practice on gender and diversity in organizations (Professor of Management, Krannert School of Management, 4005 Rawls Hall, Purdue University, West Lafayette, IN 47907, United States. Tel.: +1 5173880952; e-mail: ekossek@purdue.edu).

Leslie B. Hammer is a professor of psychology at Portland State University and director of the Center for Work—Family Stress, Safety, and Health. Her research focuses on ways in which organizations can help reduce work and family stress and improve positive spillover among employees by facilitating formal and informal workplace supports (Portland State University, United States).

Erin L. Kelly is a professor of sociology at the University of Minnesota and an affiliate of the Minnesota Population Center. Her research on employers' flexibility initiatives, family leaves, childcare benefits, and diversity programs has appeared in *American Sociological Review, American Journal of Sociology, Law & Society Review,* and elsewhere (University of Minnesota, United States).

Phyllis Moen holds a McKnight Presidential Endowed Chair and is a professor of sociology at the University of Minnesota after twenty-five years at Cornell University. She has published numerous books and articles on careers, work organizations, health, well-being, gender, policies, and families, as they intersect and change over the life course (University of Minnesota, United States).