Journal of Business and Psychology, Vol. 21, No. 4, Summer 2007 (©2007)
DOI: 10.1007/s10869-007-9039-8

USING SELECTION, OPTIMIZATION, AND COMPENSATION TO REDUCE JOB/FAMILY STRESSORS: EFFECTIVE WHEN IT MATTERS

Lindsey M. Young
Boris B. Baltes
Angela K. Pratt
Wayne State University

ABSTRACT: Previous research has demonstrated that the use of general behaviors specified by a life-management strategy entitled Selection, Optimization, and Compensation (SOC) reduces, if only to a small extent, the perceived amounts of the main antecedents (i.e., job/family stressors) of work-family conflict. The results of the current study demonstrate that several variables that impact the amount of resources demanded of, or resources available to, an individual (e.g., supervisor support) moderate the relationship between SOC behaviors and job/family stressors. Specifically, SOC strategies are more effective than previously thought at reducing job/family stressors for precisely those individuals in the most demanding situations.

KEY WORDS: work-family conflict; job stressors; family stressors; coping strategies.

INTRODUCTION

When the conflicting pressures between work and family become incompatible so that participation in one role is made more difficult because of participation in the other role, work family conflict (WFC) is said to occur (Greenhaus & Beutell, 1985). Managing the conflict between work and family is increasingly a challenge for employees,

Address correspondence to Lindsey M. Young, Wayne State University, Detroit, MI, 48202, USA. E-mail: lmyoung@wayne.edu

especially as greater numbers of households change from single earner to dual-earner. Recent research has begun to examine individual-level factors that are believed to directly affect the amount of work-family conflict experienced (e.g., Adams & Jex, 1999; Becker & Moen, 1999; Stoeva, Chiu, & Greenhouse, 2002; Wiersma, 1994). Of specific interest to the current paper is a recent study that tested a model of adaptive behavior aimed at an integrative perspective of the behavioral repertoire as a whole (Baltes & Heydens-Gahir, 2003). This study demonstrated that the use of general behaviors specified by a life-management strategy entitled Selection, Optimization, and Compensation (SOC) are related to perceived amounts of the two main antecedents (i.e., job stressors and family stressors) of work-family conflict. Specifically, people who reported using SOC-related strategies of life-management reported lower amounts of job and family stressors and subsequently lower levels of work-family conflict.

While the use of SOC behaviors were related to lower amounts of both job and family stressors, the magnitude of these relationships were not very large. These small effects may have future implications that we find unfortunate. Specifically, researchers may not devote time and effort to study in greater detail the relationships between SOC behaviors and work-family conflict. However, we suggest that the efficacy of SOC behaviors at reducing job and family stressors may be much larger than previously found. Specifically, one explanation for the small effects found in the Baltes' and Heydens-Gahir's paper could be that their study did not take into account individuals' varying levels of demands on and/or supplies of resources. Given that SOC strategies are theorized to be most efficacious for individuals who have the most demands on their resources (Freund & Baltes, 2002; Wiese, Freund, & Baltes, 2000; Wiese, Freund, & Baltes, 2002), one would expect that the relationships between SOC behaviors and both job and family stressors would be largest for individuals with the maximum demands on their resources. Following this line of reasoning, we suggest that the use of SOC behaviors are much less important (in terms of reducing job and family stressors) for individuals who do not have great demands on their resources. In sum, one should take into account the demands on and/or supplies of an individual's resources when attempting to examine the efficacy of SOC behaviors in reducing job and family stressors.

Previous research has identified several factors that impact the amount of resources demanded of, or resources available to, an individual with respect to the domains of work and family. For example, younger children typically require more care and thus more resources from their caregivers and parents (Grandey & Cropanzano, 1999). The current study explored five potential moderators of the relationship between SOC behaviors and both job and family stressors.

In the following sections, we discuss job and family stressors as antecedents of work-family conflict, describe the SOC theory and why SOC strategies are hypothesized to relate to these two main antecedents of work-family conflict, and finally, we formulate hypotheses about the moderators of the SOC—job/family stressor relationship. Subsequently, we present the results of a study that tests these hypotheses.

Job and Family Stressors: The Antecedents of Work-family Conflict

Stress researchers often conceptualize stressors as objective external conditions, or events that have actually occurred, which create stressful demands on and threats for individuals (Lazarus, 1990). Because stressors are conceptualized as creating demands on individuals, stressors in both the work and family domains have often been theorized as antecedents of work-family conflict. As suggested by Greenhaus and Beutell (1985), exposure to stressors in one domain likely leads to increased fatigue and preoccupation with that domain making it more difficult to participate in the other domain. Given that job (family) stressors place additional demands on individuals, it stands to reason, and has been supported empirically, that job (family) stressors subsequently relate to WIF (FIW) conflicts (e.g., Frone, Russell, & Cooper, 1992). As suggested by Frone et al. (1992), the job stressors of work pressure (i.e., heavy workloads and responsibilities), lack of autonomy (i.e., constraints on individuals in influencing important job aspects), and role ambiguity (i.e., being unclear about expectations and job related goals) are each linked to WFC, and thus should all be included in the measurement of job stressors. Similarly, Frone et al. (1992) suggest that in regards to family stressors, it is important to consider both parental (e.g., child misbehavior) and marital stressors (e.g., marital tension).

In order for researchers to gain a more thorough understanding of WFC, it is important to understand how individuals manage these antecedents (i.e., stressors) of WFC. As pointed out in Baltes and Heydens-Gahir (2003), very little research has been conducted regarding the individual characteristics that may allow some employees to better cope with these antecedents of WFC than other employees. While previous research has investigated various coping strategies in relation to environmental stressors, the current study views the SOC coping strategy to be particularly important in determining which individuals are better able to deal with the stressors that are subsequently important in determining individuals' levels of WFC. Further, this study seeks to specifically identify those individuals for which SOC is useful in reducing job (family) stressors, and those individuals for which SOC will not prove as useful. Thus, this research is an important step toward better

understanding how individuals manage their job and family stressors and thus their work-family conflict.

Coping With Stressors: Selection, Optimization, and Compensation

As previously noted, stress researchers have presented various coping models for managing stressors. Folkman and Lazarus (1980) define coping as "the cognitive and behavioral methods made to master, tolerate, or reduce external and internal demands and conflicts among them" (p. 223). To provide an example, several researchers have suggested the time management model as being a useful typology in explaining how individuals manage their WIF and FIW conflicts (e.g., Adams & Jex, 1999). More specifically, time management involves making daily decisions about what is most important to accomplish each day, managing time by doing things such as making "to do" lists, and a preference for organization (Macan, Shahani, Dipboye, & Phillips, 1990). While it is useful to explore these types of individual coping models and their impact on WFC, the focus of the current paper is to expand the work of Baltes and Heydens-Gahir (2003), which suggests the SOC coping model to have an impact on the stressors that likely lead to WIF and FIW conflicts. Thus, the focus of the current paper is on SOC and on further identifying for which individuals SOC will prove to be most useful. The SOC model is discussed in more detail below, however, a discussion of the differences between SOC and other coping models that have been used to understand WFC is beyond the scope of this paper and can be found in Baltes and Heydens-Gahir (2003).

SOC was originally developed as a life-span model to explain successful adaptation to the loss of resources due to aging through adjustments in the use and allocation of resources (Baltes, 1997; Baltes & Baltes, 1990; Baltes & Carstensen, 1998; Baltes, Lindenberger, & Staudinger, 2006; Freund & Baltes, 2002; Li & Freund, 2005; Riediger, Li, & Lindenberger, 2006). It is based on the underlying assumption that limited internal and external resources (e.g., mental capacity, time, social support) require people to make choices regarding the allocation of those resources. Furthermore, the more stretched one's resources become the more effective SOC strategies should be in helping an individual successfully deal with these challenges. These limitations of resources necessitate the use of selection, optimization, and compensation behaviors. The use of these behaviors should increase one's resources when possible, help maintain functioning when resources are stretched, and regulate impending losses in resources (Baltes & Dickson, 2001; Baltes, 1997). Furthermore, selection, optimization, and compensation behaviors are viewed as working together in a coordinated fashion, and thus, they should be considered as a functional set.

Selection is primarily concerned with setting goals and is divided into two categories, loss-based and elective selection. Loss-based selection occurs when an individual is pressured to change his/her goals (or goal hierarchy) by the loss of some internal or external resource (Freund & Baltes, 1998). Elective selection occurs when an individual's determination of a goal hierarchy is not the result of a loss of resources. Limited resources cause an individual to choose to focus only on certain goals. Choices are based on the value judgments of the individual. An example of elective selection in the work arena would be an employee choosing to focus on a limited number of work goals after the birth of a child.

Optimization refers to changes in the allocation and/or refinement of resources in order to achieve goals (Baltes & Baltes, 1990). Optimization strategies include the "investment of time and energy into the acquisition, refinement and application of goal-relevant means (e.g., skills)" (Wiese et al., 2000). An example of optimization in the work arena would be engaging in training programs to increase one's efficacy at work.

Compensation occurs when alternate means are used to maintain a desired level of functioning in the face of actual or anticipated decreased resources (Baltes & Baltes, 1990). A specific example of compensation in the family arena is the use of childcare. In the work arena it could be hiring an assistant.

Work-family conflict occurs when an individual's time and energy resources are limited. The theory of SOC hypothesizes that people who report using SOC, that is to select, optimize, and compensate, have a higher standing on developmental outcomes in general and when faced with the limitation of resources (e.g., time, energy), are more likely to maximize gains and minimize losses. Thus, it is plausible to assume that such individuals will be more successful at dealing with the competing roles of work and family. As mentioned earlier, this general hypothesis was supported in an earlier study which found that the use of SOC behaviors in both the job (work SOC) and family (family SOC) domain were related to lower levels of job and family stressors, and subsequently, lower amounts of work-family conflict (Baltes, & Heydens-Gahir, 2003). However, the relationship between work SOC (family SOC) and job (family) stressors was small. One explanation for these findings could be that the data set contained individuals with various levels of demands on their resources. As mentioned earlier, the use of SOC behaviors becomes more effective as the demand on one's resources increase. On the other hand, it should matter very little if an individual uses SOC behaviors if their resources are not stretched. Thus, it is important to examine the effectiveness of SOC behaviors for those individuals who have high demands on their resources compared to those who have low demands on their resources. To accomplish this goal one needs to examine variables that affect either the demand on one's resources or the supply of one's

resources. These variables should act as moderators of the work (family) SOC—job (family) stressors relationship. The next section will examine several such variables.

Moderators of the Relationship Between Work/Family SOC and Job/Family Stressors

As mentioned above, it is anticipated that SOC will be more important for those individuals with high demands on their resources. Or more specifically, the use of SOC at work (home) will be more strongly related to work (family) stressors for those individuals with either high demands on them at work (family) or those without multiple resources at work (family). The variables presented in this section were chosen as previous research suggests them to likely affect the demands on or the supply of one's resources in either the work or family domain. Thus, hypotheses are made specific to either the work or family domain. Further, this distinction between stressors in the work and family domains is consistent with the stress-support (resource) matching hypothesis (Cohen & Wills, 1985). Cohen and Wills (1985) suggest that moderating effects will only be present when the support functions, or resources, suggested are those that are most relevant for the stressors faced. To provide a more specific example of how the stress-support matching hypothesis was utilized in the current study, supervisor support is hypothesized to moderate the relationship between work SOC strategies and work stressors as the support function (supervisor support) and the stressors (work stressors) are both consistent with the work domain. Each potential moderator is discussed in more detail below.

Youngest Child at Home

The number and ages of children are related to an individual's ability to accommodate family responsibilities with work demands (Bedeian, Burke, & Moffett, 1988; Kelly & Voydanoff, 1985; Voydanoff, 1988). Younger children typically require more care and thus more resources from their caregivers. Parents with younger children at home report more conflict between work and family (Burke, Weir, & DuWors, 1980a, b) and have fewer time and energy resources (Grandey & Cropanazano, 1999).

Younger children at home are expected to be a larger drain on one's family resources than older children, and thus, it is expected that parents with younger children at home will benefit more from using family SOC strategies.

Hypothesis 1: The age of the youngest child at home will moderate the relationship between family SOC strategies and family stressors. Specifically, parents with younger children at home will show a stronger negative relationship between using family SOC strategies and experiencing family stressors than parents with older children.

Family/Social Support

Family support can be conceptualized as a cohesive, supportive, positively communicating family (Hobfoll & Spielberger, 1992). Social support can come in the form of emotional support (i.e., listening and being empathetic) or instrumental support (i.e., tangible assistance; Beehr & McGrath, 1992; Kaufmann & Beehr, 1986). Past research has found family support to be negatively related to stress and strain (Bernas & Major, 2000); and has further shown family support to buffer the negative impacts between care giving and work and family role strain (Lechner, 1993). Thus, it is possible that family support provides individuals with additional resources for coping with family stressors.

Hobfoll and Spielberger (1992) define resources as "the strengths of individuals, families, or larger systems that are valued or that act as a vehicle for obtaining that which is valued" (p. 102). These family resources are used to combat stressors such as parental overload or child misbehavior. Further, Hobfoll and Spielberger (1992) conceptualize family support as a key family resource. Thus, family support can be viewed as useful for combating family stressors.

Given that family support provides an additional resource for combating family stressors and that SOC becomes more important in limited resource situations, it is logical to investigate family support as a moderator between the use of family SOC strategies and family stressors. Because individuals high in family support are already utilizing a resource to combat stressors, it seems that SOC strategies may be more important to individuals low in family support as they are lacking that resource.

Hypothesis 2: Family support will moderate the relationship between family SOC strategies and family stressors. Specifically, there will be a stronger negative relationship between family SOC strategies used in the family domain and family stressors for individuals with low family support than for individuals with high family support.

Family Friendly Policies

Family friendly policies are services provided by the organization to better enable employees in handling the interface between work and

family (Thompson, Beauvais, & Lyness, 1999). Such policies include, but are not limited to, leave to take care of a sick family member, on-site child-care or subsidized local childcare. Family friendly policies are focused on providing employees with resources to better manage family stressors that may be difficult to manage while working.

Past research has investigated whether a relationship exists between organizations offering these policies and family outcomes. In general, family friendly policies have been related to lower exhaustion and more life satisfaction (Richardsen, Burke, & Mikkelsen, 1999) and to lower interpersonal strain (Teo & Water, 2002). Magid (1983) suggests that child and dependant care policies are associated with parent employees experiencing less stress and distraction. Further, positive relationships have been found between alternative work schedules and easier commuting and child care arrangements (Bohen & Viveros-Long, 1981). Baxter (1996) suggests that job-sharing (a form of alternative work schedule) is related to achieving a balance between working and non-working aspects of living (Baxter, 1996). Thus, there is evidence that offering family friendly policies may reduce family stressors.

It seems clear that by offering family friendly policies, an organization is providing its employees with additional resources to combat family stressors. As such, individuals working for organizations offering family friendly benefits will already have numerous resources available to them in dealing with their family responsibilities. Therefore, family SOC strategies may be less effective (i.e., less needed) for such individuals.

Hypothesis 3: The number of offered family friendly policies will moderate the relationship between family SOC strategies and family stressors. Specifically, there will be a stronger negative relationship between SOC strategies used in the family domain and family stressors for individuals who have a low number of family friendly policies offered than for individuals with a large numbers of policies offered to them.

Supervisor Support

Supervisor support can be defined as the degree to which employees perceive that supervisors offer employees support, encouragement and concern (Burke, Borcki, & Hurley, 1992). As with family/social support, supervisor support can be either instrumental and/or emotional. Such support and encouragement may be useful in combating stressors at work. Past research has found that individuals with higher levels of social support, including supervisor support, are less negatively affected by high stress environments (Scmieder & Smith, 1996). This suggests that when exposed to many stressors on the job, these stressors will have less of an effect on individuals who have high supervisor support than individuals who report low supervisor support. Furthermore, Dorman

and Zapf (1999) found increased supervisor support to have a negative impact on work stressors.

The added resources supervisors provide employees likely also reduce work stressors. More specifically, an important way in which supervisors facilitate employee performance is by providing key resources such as equipment and training (Guzzo & Garnett, 1988). Such support provides employees with additional resources beyond what they can provide for themselves. Because supervisor support is negatively related to work stressors and because it increases available resources, those individuals with high supervisor support may have less of a need to engage in SOC behaviors. Further, Van Emmerik (2002) conceptualizes supervisor support as an effective coping strategy. Thus, individuals with high supervisor support may not need to engage in additional coping behaviors such as SOC. In other words, the use of work SOC strategies may be more needed (i.e., more useful) for those individuals with low levels of supervisor support.

It is important to note that there has been research, particularly research focused on supervisor emotional support, which has suggested supervisor emotional support to actually increase emotional exhaustion (strain) when individuals are faced with increased stressors (Kickul, & Posig, 2001). However, as is typical of the supervisor support literature, the Kickul and Posig (2001) study also additionally demonstrated significant and inverse relationships between supervisor support and emotional exhaustion, between supervisor support and time pressure and between supervisor support and role conflict. Thus, while the relationships between supervisor support and stress and strain may be more complicated than originally thought, research is consistent in demonstrating inverse relationships between supervisor support and individual stress and strain. In sum, it is likely that individuals lacking supervisor support will be more in need of the SOC coping model to alleviate job stressors. Thus the following hypothesis is made:

Hypothesis 4: Supervisor support will moderate the relationship between work SOC strategies and work stressors. Specifically, there will be a stronger negative relationship between using work SOC strategies and work stressors for individuals with low supervisor support than for individuals with high supervisor support.

Age

It is plausible to assume that midlife is when the resources of individuals are most likely to be under the most demands. Specifically,

unlike younger workers, midlife is when the majority of individuals will have found a partner and have young children in the home. Older workers, on the other hand, will be less likely to have children at home and also generally have more seniority, tenure, and status (Grandey & Cropanzano, 1999). Likewise, some researchers found that executives in midlife report more stress than older executives (Reddy, & Ramamurti, 1990). In Reddy and Ramamurti's study, workers attributed stress experiences to several work-related conditions, including work conditions, role in the organization, relationship with subordinates and colleagues, and work-home issues.

Additionally, the life-stages model suggests that individuals in midlife may be faced with more demands than both younger and older individuals. With respect to the developmental stages of individuals (and families) studies have demonstrated (e.g., Keith & Schafer, 1991; Schnittger & Bird, 1990) that an individual's life-cycle stage is associated with work and family role demands (i.e., potential for work family conflict). Life-cycle stages refer to the variations in work and family role demands encountered during the life course (Aldous, 1978). These stages are correlated with chronological age but are distinctive role structures that separate them from other periods. According to Hill (1986), individuals advance through eight life stages: Establishment stage (childless, newly married); First parenthood (family with infant to 3 years); Family with preschool children (oldest child 3–6 years of age); Family with school children (oldest child 6–12 years of age); Family with adolescents (oldest child 13–20 years of age); Family as launching center (children begin to leave the home); Family in middle years (post-parental empty nest); and Family in retirement (breadwinners in retirement). In general, research suggests that demands increase during the first few stages and then decrease as individuals move through the later stages of life (e.g., Higgins, Duxbury, & Lee, 1994; Staines & O'Connor, 1980). Given that the life-stages are correlated with age one can also predict, and again research supports, this same nonlinear relationship with age.

Therefore, it appears that younger individuals just starting out and older individuals in later life stages are likely to have more resources and experience less demands than individuals in midlife. Furthermore, SOC researchers have found that individuals in midlife reported using SOC strategies more than younger individuals and older individuals (Freund & Baltes, 2002). In sum, it appears SOC behaviors would be most effective for middle age individuals and less effective (i.e., less needed) for younger and older individuals. Thus, the following two hypotheses can be made:

Hypothesis 5: Age will have a non-linear moderating effect on the relationship between work SOC behaviors and work stressors. Specifically, workers in their midlife will show the strongest relationship between work SOC strategies and work stressors and younger and older workers will show weaker relationships between work SOC strategies and work stressors.

Hypothesis 6: Age will have a non-linear moderating effect on the relationship between family SOC behaviors and family stressors. Specifically, individuals in their midlife will show the strongest relationship between family SOC strategies and family stressors and younger and older workers will show weaker relationships between family SOC strategies and family stressors.

In sum, previous research has demonstrated the use of SOC strategies in the work (family) domain to relate to lower levels of job (family) stressors which subsequently relate to WIF (FIW) conflict (Baltes, & Heydens-Gahir, 2003). However, the magnitudes of the SOC/stressor relationships in this previous study were not large. The current study seeks to explain these unexpectedly small relationships. More specifically, because the use of SOC is theorized to become more effective as the demand on one's resources increase, it is important to examine the effectiveness of SOC behaviors for those individuals who have high demands on their resources compared to those who have low demands on their resources. To this end we have suggested the age of one's youngest child, family social support, the number of family friendly benefits offered, and ones' age to likely moderate the family SOC/family stressor relationship; and supervisor support and ones' age to likely moderate the work SOC/work stressor relationship.

Additional control variables were added in the testing of each of the above stated hypotheses in order to assess whether these relationships are consistent when controlling for various other factors. The control variables for the work side include gender and job involvement, while the control variables for the family side include gender and family involvement. These variables were included as controls based on how often they are considered important in other studies of the demands of work and family (e.g., Frone et al., 1992).

METHOD

Participants

The current study utilized a data pool of participants willing to fill out web-based surveys in exchange for a monetary incentive. This data

pool of more than 2000 individuals has been put together to help researchers find participants for web-based surveys (please see http://www.StudyResponse.com). Potential participants from this pool who indicated that they were working full-time (520 individuals) were sent an email message to invite them to fill out the survey in exchange for the possibility of winning a monetary raffle. During the 7-day-time period that the survey was posted on-line, 284 individuals responded out of a possible 520 full-time workers for a response rate of 55%. Of these 284 respondents, 260 met the criteria that they were either married/living with a partner and/or had children and worked at least 30 hours a week. Thus, all of the included participants were capable of experiencing work-family conflict to some degree. It should be pointed out that the data used in this study is partly composed of the data (both with respect to participants and measures) used in the Baltes and Heydens-Gahir (2003) study. However, both additional participants and measures are presented in this study that were not used in the above mentioned study. As can be seen in Table 1, participants were heterogeneous in terms of demographic characteristics such as job type and age.

Measures

SOC. To assess SOC behaviors, the questionnaire developed by Baltes, Baltes, Freund, and Lang (1999) was used. The questionnaire exists in different lengths (Please see Freund & Baltes, 2002 for a complete review of forms). The short 12-item version of the SOC questionnaire was used in this study. More specifically there were three items assessing each of the four components of SOC. Each individual item consists of two response options: one which reflects a typical SOC behavior, and the other which reflects an acceptable non-SOC option. The respondents are asked to choose the option that best describes their behavior. Respondents are then asked to indicate the degree of similarity between themselves and the option they selected on a 4-point response scale (ranging from 1-a little, to 4-exactly). Thus, a participants score on each SOC item will range from 0 (non-SOC response) to 4 (SOC response with an exact degree of similarity selected).

The participants filled out the SOC questionnaire twice, once with the instructions to think about their work context while answering the questions, and once with the instructions to think about their family life context while answering the questions. It was demonstrated by Wiese et al. (2000) that such domain-specific measures are useful in predicting family and career functioning. Thus, we were able to compute SOC work scores and SOC family scores.

As previously mentioned, the four components of SOC are viewed as working together in a coordinated fashion, and thus, are considered as a

Table 1
Demographic Characteristics of the Sample

Sample Characteristic	% of Sample
Gender	
Male	28.40
Female	71.60
Age (range = 21–64; *M* = 38.88)	
35 or Below	44.04
Above 35	55.96
Ethnicity	
White/European American	82.80
Hispanic	7.00
Black/African American	6.30
Asian	1.80
Other	2.10
Employee Type	
Administration and Managerial	15.40
Accounting	1.00
Computers and Mathematical Occupations	6.60
Library Occupations	0.30
Education and Training	34.60
Psychology and Counseling	2.10
Community and Social Services	0.70
Sports and Media	5.20
Healthcare Support Occupations	0.70
Educational Support	1.70
Food-Prep and Service Related Occupations	1.00
Building & Grounds Cleaning & Maintenance	9.80
Office and Administrative Support	2.10
Other	18.50
Years on the Job (range = 0.5–39; *M* = 7.87)	
10 or Less	75.90
More Than 10	24.10
Hours Worked Per Week (range = 30–88; *M* = 46.39)	
40 or Less	46.34
41–50	32.75
More Than 50	20.91

functional set. Given this, it is not surprising that high correlations have been found among the four components of SOC (Freund & Baltes, 2002). Further, since our focus was on SOC as an ensemble of strategies of life-management and how this ensemble of behaviors relates to stressors, the four component scores were averaged to compute a total SOC score. Coefficient alpha for the overall SOC work scale in this study was .80, while the coefficient alpha for the overall SOC family scale was .89.

Job stressors

Job stressors were assessed using a twenty-item scale developed by Frone et al. (1992). The scale is comprised of three sub-scales: work pressure (i.e., role overload), lack of autonomy, and role ambiguity. Participants responded on a four-point response scale ranging from 1 (*almost always*) to 4 (*almost never/never*). Coefficient alpha for this scale in this study was .84.

Family Stressors

Family stressors were assessed using an eight-item scale comprised of four marital stressor items and four parental stressor items (Frone et al., 1992). Participants responded on a 4-point frequency-based response scale with the exception of one marital stressor item that used a 5-point frequency-based response scale. Coefficient alpha for this scale in this study was .80.

Youngest Child at Home

The age of the youngest child at home was assessed using a 1-item measure that had 5 response categories: 1 (*no children at home*), 2 (*over 18 years of age*), 3 (*13–18 years of age*), 4 (*6–12 years of age*), 5 (*less than 6 years of age*).

Family/social support

Family/social support was assessed using a social support scale developed by Sargent and Terry (2000). This measure assesses both spousal and family support and includes items that assess both instrumental and emotional support. The 12 items were measured using a 4-point scale ranging from 1 (*not at all*) to 4 (*very much*) and including a fifth point (no such person). Example items include "How much can you count on your spouse/partner to help you out in a crisis situation at work, even though they would have to go out of their way to do so?" and "How much can you count on your spouse/partner to listen to you when you need to talk about work-related problems?" Coefficient alpha for this scale in this study was .85.

Family Friendly Policies

Benefit coverage was measured with a list of 17 benefits used by Sinclair, Hannigan, and Tetrick (1995). Participants were asked to indicate all benefits offered by their employer. However, only family

friendly benefits (14 of the 17 items on the original scale) were used for our analyses. Thus, the number of benefits an individual could indicate their company offers could range from 0 to 14.

Supervisor Support

Lack of supervisor support was assessed using a 5-item measure developed by Kossek (1990). The items were measured using a 5-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). The scores on this scale were reversed so that higher scores indicated more supervisor support. This scale contains items that assess both instrumental "My supervisor's managerial style makes it easy for me to deal with childcare problems during work hours" and emotional "I feel free to discuss childcare issues with my supervisor" supervisor support. Coefficient alpha for this scale in this study was .94.

Job Involvement

Job involvement was measured using a 5-item scale developed by Frone et al. (1992). Participants indicate their response on a 6-point scale ranging from 1 (*disagree strongly)* to 6 *(agree strongly).* In the current study, coefficient alpha for this scale .90.

Family Involvement

Family involvement was measured using a 10-item scale developed by Frone et al. (1992). Responses were made on a 6-point response scale ranging from 1 (*disagree strongly)* to 6 *(agree strongly).* Coefficient alpha for this scale in this study was .84.

Age

Age was measured through the use of a one-item question that asked for the participant's age.

DATA ANALYSES

Correlations between study variables and scale reliabilities are presented in Table 2. A series of hierarchical regressions were run to test hypotheses 1–4. In each regression the two control variables, either gender and job involvement or gender and family involvement, and the two independent variables, either work or family SOC and the specific moderator of interest were entered in the first step. Finally, the

Table 2
Intercorrelations Among Study Variables

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	WSOC	1.40	.55	(.80)													
2	FSOC	1.35	.61	.74**	(.89)												
3	JS	2.20	.47	−.19**	−.16*	(.84)											
4	FS	1.53	.71	−.08	−.15*	.17*	(.80)										
5	SUPSUP	2.65	1.06	.08	.06	−.44**	−.12	(.94)									
6	AGE	38.74	10.19	.21**	.10	−.07	.03	−.01	–								
7	SOCSUP	3.14	.60	.14*	.11	−.18**	−.28**	.23**	−.06	(.85)							
8	YOUNG	3.01	1.61	−.09	.01	−.12	.56**	−.07	−.11	−.03	–						
9	FFP	9.97	3.77	.10	.07	.02	.10	−.28**	.18**	−.10	.09	–					
10	GENDER	.72	.45	.01	.01	−.06	−.01	−.02	−.06	.18**	.03	.10	–				
11	JOBINV	3.95	1.27	.18**	.05	−.08	−.01	.19**	.05	.10	−.05	−.11	−.11	(.90)			
12	FAMINV	4.30	1.36	−.00	.05	−.01	.44**	−.01	.09	.06	.53**	.15*	−.11	.00	(.84)		
13	HOURS	46.39	10.33	.06	.04	.22**	−.08	.07	.14*	−.01	−.10	.10	−.07	.20**	−.02	–	
14	YEARS	7.87	8.12	.12	.04	−.08	.00	−.11	.55*	.01	−.15*	.05	−.13	.09	.09	.06	–

Note: *N* ranges from 241–260. Reliabilities are in parentheses where applicable. WSOC = work SOC, FSOC = family SOC, JS = job stressors, FS = family stressors, SUPSUP = supervisor support, SOCSUP = social support, YOUNG = Youngest child living at home, FFP = Number of family friendly policies, GENDER = (0 − male, 1- female); JOBINV = job involvement; FAMINV = family involvement; HOURS = hours worked per week, YEARS = years working current job

interaction term was entered in the second step. All independent variables were centered before the calculation of interaction terms to reduce problems associated with multicollinearity (Tabachnick & Fidell, 2001). In addition, to obtain the correct standardized regression coefficients for the interaction terms from SPSS, the regressions were also run with standardized variables and their respective interaction terms (Cohen, Cohen, West, & Aiken, 2003).

For hypotheses 5 and 6, which predict a nonlinear moderating effect of age, subgroup analysis was used. To accomplish this we classified participants into three equally spaced (in terms of years) groups (19–34, 35–50, 50–65). Many researchers who investigate age differences in working populations use similar age groupings (e.g., Hurrell, McLaney, & Murphy, 1990; Reddy & Ramamurti, 1990). We did not have any participants over the age of 65 in this study. Partial correlations, controlling for gender and job (family) involvement, were calculated between work (family) SOC and job (family) stressors for each age group. These correlations were then compared using *t*-tests based on Fishers z (Fisher, 1921).

RESULTS

Hypothesis 1

The unstandardized and standardized regression weights obtained in these analyses are displayed in Table 3, along with the total amount of variance accounted for by the predictor variables. After controlling for

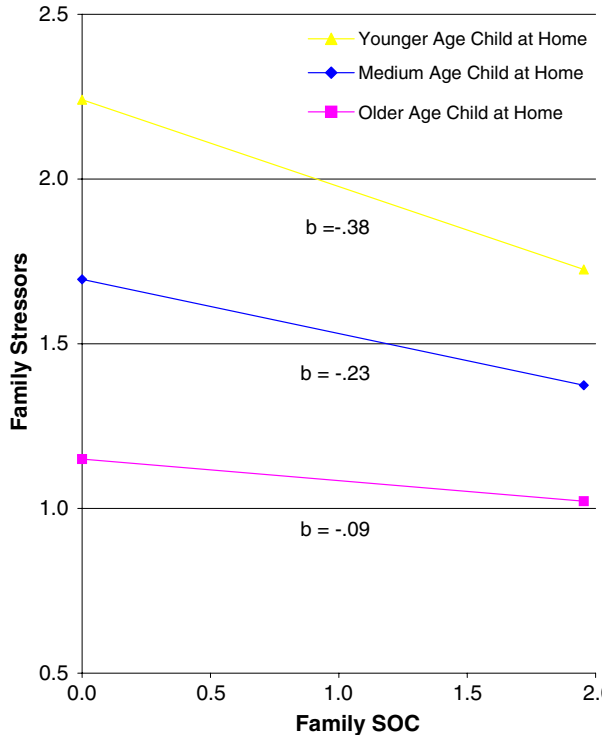
Table 3
Summary of Hierarchical Regression Analyses Examining the Moderating Effect of Youngest Child at Home on the Relationship Between Family SOC and Family Stressors

Variable	R^2	ΔR^2	*B*	*SE B*	β
First Step	0.464				
Gender			0.11	0.089	0.06
Family Involvement			0.242	0.028	.518**
Family SOC			−0.084	0.08	−0.057
Youngest Child			0.288	0.03	.558**
Second Step	0.479	.015*			
Gender			0.112	0.088	0.061
Family Involvement			0.24	0.028	.514**
Family SOC (FSOC)			−0.232	0.059	−.196**
Youngest Child (YC)			0.221	0.022	.496**
(FSOC) × (YC)			−0.1	0.048	−.118*

Note. N=241 (*p < .05, **p < .01, two-tailed)

gender and family involvement, the interaction between family SOC and age of the youngest child at home was significant, $t\,(238) = -2.26$, $p < .05$. To examine this interaction, an unpublished Microsoft excel spreadsheet program developed by Bing and LeBreton (2001) that is designed to graph the regression interactions for two continuous variables was used. This program graphs continuous interactions using the formulas presented in Cohen and Cohen (1983). As one can see in Figure 1, the relationship between family SOC and family stressors becomes stronger the younger the age of the child at home. Specifically, the expected negative b-weight (i.e., more family SOC should lead to less family stressors) increases from a −.09 when one is considering individuals one standard deviation above the mean of the youngest child at home variable (above the mean indicates older children at home) to -.38 when one is considering individuals one standard deviation below the mean of the youngest child at home variable (below the mean indicates younger

Figure 1
The Moderating Effect of the Age of the Youngest Child at Home on the Relationship Between Family SOC and Family Stressors



children at home). Thus, hypothesis 1 was supported given that the use of SOC strategies in the family domain was demonstrated to more strongly relate to family stressors for individuals with younger children at home in comparison to individuals with older children at home. Or in other words, the use of family SOC strategies seems to be more important for individuals with young children at home than for individuals with older children at home.

Hypothesis 2

The unstandardized and standardized regression weights obtained in these analyses are displayed in Table 4, along with the total amount of variance accounted for by the predictor variables. After controlling for gender and family involvement, the interaction between family SOC and family/social support was not significant, $t(225) = 0.99$, ns. Thus, hypothesis 2 was not supported. Although expected, results from the current study did not demonstrate a stronger negative relationship between family SOC strategies and family stressors for individuals with low family support than for individuals with high family support.

Hypothesis 3

The unstandardized and standardized regression weights obtained in these analyses are displayed in Table 5, along with the total amount of variance accounted for by the predictor variables. After controlling for gender and family involvement, the interaction between family SOC and

Table 4
Summary of Hierarchical Regression Analyses Examining the Moderating Effect of Family/Social Support on the Relationship Between Family SOC and Family Stressors

Variable	R^2	ΔR^2	*B*	*SE B*	β
First Step	.376**				
Gender			0.249	0.084	.163**
Family Involvement			0.281	0.028	.536**
Family SOC			−0.119	0.06	−.106*
Family/Social Support			−0.387	0.064	−.333**
Second Step	.377**	0.001			
Gender			0.254	0.084	.166**
Family Involvement			0.283	0.028	.539**
Family SOC (FSOC)			−0.12	0.06	−.107*
Family/Social Support (FS)			−0.386	0.064	−.332**
(FSOC) × (FS)			0.071	0.103	0.037

Note. N=228 (*$p < .05$, **$p < .01$, two-tailed).

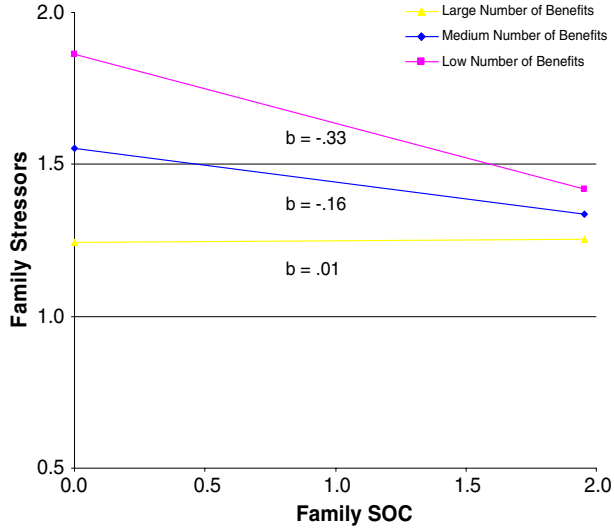
Table 5
Summary of Hierarchical Regression Analyses Examining the Moderating Effect of Number of Family Friendly Policies on the Relationship Between Family SOC and Family Stressors

Variable	R^2	ΔR^2	*B*	*SE B*	β
First Step	.230*				
Gender			0.073	0.086	0.048
Family Involvement			0.231	0.029	.453**
Family SOC			−0.206	0.063	−.180**
Family Friendly Policies			0.005	0.01	0.029
Second Step	.245*	.015*			
Gender			0.085	0.084	0.055
Family Involvement			0.229	0.028	.450**
Family SOC (FSOC)			−0.198	0.063	−.174**
Family Friendly Policies (FFP)			0.006	0.01	0.032
(FSOC) × (FFP)			0.041	0.018	.124*

Note. N=260 (*p < .05, **p < .01, two-tailed).

number of benefits offered was significant, t (257) = 2.50, p < .05. As one can see in Figure 2, the relationship between family SOC and family stressors becomes stronger as the number of benefits offered decreases. Specifically, the expected negative b-weight (i.e., more family SOC

Figure 2
The Moderating Effect of Number of Family Friendly Policies on the Relationship Between Family SOC and Family Stressors



should lead to less family stressors) increases from .01 when one is considering individuals one standard deviation above the mean of number of benefits (i.e., they have more benefits) to −.33 when one is considering individuals one standard deviation below the mean number of benefits (i.e., they have less benefits). Thus, hypothesis 3, which suggested that there would be a stronger negative relationship between family SOC strategies and family stressors for individuals who have a low number of family friendly benefits offered, was supported.

Hypothesis 4

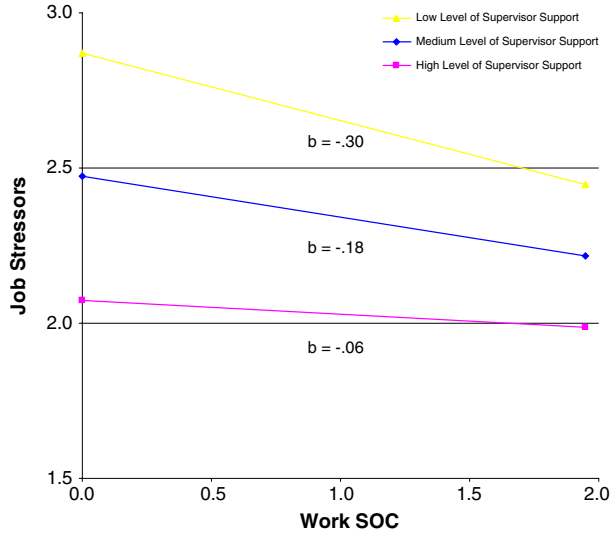
The unstandardized and standardized regression weights obtained in these analyses are displayed in Table 6, along with the total amount of variance accounted for by the predictor variables. After controlling for gender and job involvement, the interaction between work SOC and supervisor support was significant, t (249) = −2.67, $p < .05$. As one can see in Figure 3, the relationship between work SOC and job stressors becomes stronger the lower the amount of supervisor support. Specifically, the expected negative b-weight (i.e., more work SOC should lead to less job stressors) increases from −.06 when one is considering individuals one standard deviation above the mean of supervisor support (i.e., they have more supervisor support) to −.30 when one is considering individuals one standard deviation below the mean of supervisor support (i.e., they have less supervisor support). Thus, hypothesis 4 was supported. As expected, data from the current study demonstrates there to be a stronger negative relationship between the use of work SOC

Table 6
Summary of Hierarchical Regression Analyses Examining the Moderating Effect of Supervisor Support on the Relationship Between Work SOC and Job Stressors

Variable	R^2	ΔR^2	*B*	*SE B*	β
First Step	.289**				
Gender			−0.077	0.06	−0.07
Job Involvement			0.015	0.022	0.039
Work SOC			−0.191	0.05	−.209**
Supervisor Support			−0.225	0.026	−.475**
Second Step	.307**	.018*			
Gender			−0.076	0.059	−0.069
Job Involvement			0.027	0.023	0.067
Work SOC (WSOC)			−0.191	0.05	−.209**
Supervisor Support (SS)			−0.222	0.026	−.470**
(WSOC) × (SS)			−0.125	0.05	−.137**

Note. N=252 (*$p < .05$, **$p < .01$, two-tailed)

Figure 3
The Moderating Effect of Supervisor Support on the Relationship Between Work SOC and Job Stressors



strategies and work stressors for individuals with low supervisor support than for individuals with high supervisor support.

Hypothesis 5

Partial correlation coefficients, controlling for gender and job involvement, were calculated for each age subgroup and then compared using *t*-tests based on Fishers z (Fisher, 1921). As one can see in Table 7, hypothesis 5 was supported. Specifically, the strongest negative

Table 7
Non-linear Moderating Effect of Age on the Relationship Between Work SOC and Job Stressors Controlling for Gender and Job Involvement

	Age Group		
	19–34	35–50	50–65
Partial Correlation Between Work SOC and Job Stressors	.03[a]	−.46[b]	−.15[a]
	N=93	*N*=117	*N*=41

Note. Means were tested for significant differences using t tests. Different letter superscripts indicate significant differences ($p < .05$, two-tailed).

Table 8
Non-Linear Moderating Effect of Age on the Relationship Between Family SOC and Family Stressors Controlling for Gender and Family Involvement

	Age Group		
	19–34	35–50	50–65
Partial Correlation Between Family SOC and Family Stressors	$-.07^{a}$ N=93	$-.28^{b}$ N=117	$-.08^{a}$ N=41

Note. Means were tested for significant differences using t tests. Different letter superscripts indicate significant differences ($p < .05$, two-tailed)

relationship (−.46) between work SOC and job stressors was found in the 35–50 age group. This correlation was significantly different from the lower correlations in both the 19–34 age group (−.03) and in the 50–65 age group (−.15). In sum, the current study demonstrates workers in their mid-life to show the strongest negative relationship between work SOC strategies and work stressors in comparison to younger and older workers.

Hypothesis 6

Partial correlation coefficients, controlling for gender and family involvement, were calculated for each age subgroup and then compared using t-tests based on Fishers z (Fisher, 1921). As displayed in Table 8, hypothesis 6 was supported. More specifically, the strongest negative relationship (−.28) between family SOC and family stressors was found in the mid-life age group (35–50). Further, this correlation was significantly different from the lower correlations found both in the 19–34 age group (−.07) and in the 50–65 age group (−.08). Thus, this demonstrates individuals in their mid-life to show a stronger negative relationship between the use of family SOC strategies and family stressors in comparison to younger and older individuals.

DISCUSSION

It has been demonstrated that individuals who reported using SOC-related strategies of life-management reported lower amounts of job and family stressors and subsequently lower levels of work-family conflict (Baltes & Heydens-Gahir, 2003). The goal of the present study was to examine several potential moderators of the SOC—job/family stressor relationship. We hypothesized that the age of participant's youngest

child at home, family/social support, the number of family friendly policies offered, supervisor support, and participant age would either affect the demand on one's resources or the supply of one's resources and thus moderate the work (family) SOC—job (family) stressor relationship. The present study found support for five of the six hypotheses investigated.

Age of youngest child at home was found to significantly moderate the relationship between family SOC strategies used and family stressors such that the relationship between family SOC and family stressors became stronger the younger the age of the youngest child at home. The number of family friendly policies offered was also a significant moderator such that the relationship between family SOC and family stressors became stronger as the number of family friendly policies offered decreased. Further, the relationship between work SOC and job stressors was significantly stronger for individuals with low supervisor support than for individuals with high supervisor support, and thus supervisor support was found to be a significant moderator. Finally, as expected, participant age had a non-linear moderating effect on the relationship between work (family) SOC and job (family) stressors such that the strongest negative relationship was found between work (family) SOC and job (family) stressors for individuals in the middle-age range, from 35 to 50 years old. Thus, evidence gathered from the present study supports that SOC behaviors are most effective/important for individuals who have more demands on their resources (i.e., individuals with young children, low numbers of benefits offered, low supervisor support and those in their middle years).

It is interesting to note that family/social support was not found to significantly moderate the relationship between family SOC strategies and family stressors. Although this result was unexpected, it is not necessarily contradictory to the hypothesis that SOC is most effective in the most demanding situations. A possible explanation may be that family/social support actually contributes to family stress and is therefore not a resource to combat family stressors. Kazak (1989) found that dense family networks actually contribute to greater family distress. Therefore, family support may not always function as an added resource.

Theoretically, results from this study reinforce the literature which is beginning to suggest SOC as a useful coping strategy to investigate when considering work-family issues. When in demanding situations (i.e., with stretched resources), the use of selection, optimization, and compensation behaviors is related to lower levels of external stressors. While future research is needed, these results preliminarily suggest that it may be beneficial for strained individuals to learn how to utilize SOC strategies at both work and at home.

Limitations and Future Research

Admittedly, there are some limitations to the present study. First, there are many additional potential moderators of the work (family) SOC—work (family) stressors relationship. For example, it would have been beneficial to include a measure of family friendly benefits utilized as well as the included measure of benefits offered. It is possible that benefits utilized moderates the relationship differently than benefits offered, or that it is actually a ratio of utilized to offered benefits that is important. However, this study provides strong evidence that work (family) SOC strategies become more effective in reducing job (family) stressors under limited resource conditions. Thus the present study justifies future endeavors to identify under which circumstances SOC strategies are important in reducing job and family stressors.

There are additional limitations which result from the design and sampling procedures used in this study. First, this study is cross-sectional in nature and thus the current design does not allow for causal interpretations. Utilizing a longitudinal design would facilitate our understanding of the relationship between SOC behaviors in the work (family) domain and job (family) stressors and the moderators of these relationships. Second, there is a possible sampling issue in the present study. More specifically, the sampling procedures used were not random. It would be advantageous for future researchers to replicate the present findings with a random sample of participants.

The present study also only investigates the relationship between overall work (family) SOC and job (family) stressors. As previously mentioned, the various components of SOC are thought to work together, with the overall SOC score thought to be a stronger predictor than the individual components of SOC. However, it is part of the SOC theory that its individual components (selection, optimization and compensation) may show differential associations depending on context and subject characteristics (Freund & Baltes, 2002). Because the short 12-item scale was used in the present study, investigating moderators separately for each component was not appropriate as there were only three items per component of SOC. Subsequently, the practical implications of SOC are somewhat limited by this overall measure. From a practical perspective, it would be beneficial to know if the relationships identified in this study are consistent for selection, optimization, and compensation behaviors. For example, selection may relate more strongly to job stressors than optimization for individuals in highly demanding work situations; while optimization may prove more useful than selection for individuals with high demands at home. Thus, future research should include the 48-item SOC scale in order to investigate moderators by component.

Further, the present study was not concerned with specifying behaviors involved in SOC, but in obtaining only an overall SOC score. Now that we are beginning to understand how SOC strategies are useful in the context of work and family, it would be beneficial to understand what specific behaviors are involved in selecting, optimizing and compensating. Furthermore, future research should also address which of these specific behaviors are functional and under what circumstances. Doing so would increase the practical utility of this research as identifying the specific behaviors that are useful would facilitate the potential training of SOC.

Finally, as noted earlier, supervisory *emotional* support has been shown to strengthen the positive relationship between demand stressors and emotional exhaustion (Kickul & Posig, 2001). While results of the current study support the notion that supervisor support serves as an additional resource for individuals in dealing with stressors, it is also important to note that the measure of supervisor support used in the current study contains questions that address both emotional and instrumental types of support. Thus, it seems important for future research to investigate separately emotional and instrumental support to better understand the role of this variable in the stress and strain process.

Summary and Conclusions

These results suggest that SOC behaviors may be more effective at reducing job and family stressors than was initially thought. This is important for both theoretical and practical reasons. Theoretically, it further bolsters the argument that using SOC behaviors are effective for reducing job and family stressors which in turn leads to lower levels of work-family conflict (Baltes and Heydens-Gahir, 2003). From a practical perspective, since the effectiveness of SOC behaviors are much larger for precisely those individuals in the most demanding situations, it now makes more sense to investigate further the specific SOC behaviors people may use.

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