

Florida Institute of Technology

Scholarship Repository @ Florida Tech

Theses and Dissertations

5-2016

Proactive Coping Style and Employee Well-being: Workplace Stressors and Recovery Experiences as Mediators

Erica Christine Keeton

Follow this and additional works at: <https://repository.fit.edu/etd>



Part of the Industrial and Organizational Psychology Commons

Proactive Coping Style and Employee Well-being:
Workplace Stressors and Recovery Experiences as Mediators

by

Erica Christine Keeton

A thesis submitted to the School of Psychology at
Florida Institute of Technology
in partial fulfillment of the requirements
for the degree of

Master of Science
in
Industrial Organizational Psychology

Melbourne, Florida
May, 2016

We the undersigned committee hereby approve the attached thesis, "Proactive Coping Style and Employee Well-being: Workplace Stressors and Recovery Experiences as Mediators," by Erica Christine Keeton.

Zhiqing Zhou, Ph.D., Thesis Advisor
Assistant Professor
School of Psychology

Erin Richard, Ph.D., Committee Member
Associate Professor
School of Psychology

Heidi Edwards, Ph.D., Committee Member
Associate Head, Program Chair, Associate Professor
School of Arts and Communication

Mary Beth Kenkel, Ph.D., Department Head
Dean of College of Psychology and Liberal Arts
College of Psychology and Liberal Arts

Abstract

Title: Proactive Coping Style and Employee Well-being: Workplace Stressors and Recovery Experiences as Mediators

Author: Erica Christine Keeton

Advisor: Zhiqing Zhou, Ph. D.

The stressor-strain relationship has been a popular focal topic in organizational research. Workplace stressors have been found to relate to decreased well-being, job satisfaction, organizational commitment, job performance and organizational citizenship behaviors (OCBs), as well as increased counterproductive work behaviors and safety issues. This study investigated the relationships of proactive coping style with employee health, job satisfaction, organizational commitment, OCBs, and social support, as well as the mediating effects of workplace stressors and recovery experiences. Results indicated that the proactive coping style directly related to health, job satisfaction, organizational commitment, OCBs, social support and recovery experiences. Workplace stressors did not mediate any of the relationships between proactive coping style and employee outcomes; however, recovery experiences mediated most of the relationships between proactive coping style and employee outcomes, except for organizational commitment. Social support did not buffer these relationships. These findings suggest that the proactive coping style does predict individual and organizational wellbeing. Future research should consider further exploring training this coping style towards efforts in increasing healthy workplace environments.

Table of Contents

| | |
|---|-----|
| List of Figures..... | vi |
| List of Tables | vii |
| Introduction | 1 |
| Introduction to Coping Styles..... | 3 |
| Reactive Coping Styles | 4 |
| Avoidance Coping Style | 5 |
| Proactive Coping Style..... | 5 |
| Hypotheses Development | 8 |
| Proactive Coping Style and Health | 8 |
| Proactive Coping Style and Job Satisfaction and Commitment..... | 9 |
| Proactive Coping Style and Organizational Citizenship Behaviors | 10 |
| Workplace Stressors..... | 11 |
| Recovery..... | 15 |
| Social Support | 18 |
| Method..... | 21 |
| Participants | 21 |
| Measures..... | 21 |
| Proactive Coping..... | 21 |
| Health..... | 22 |
| Job Satisfaction | 22 |
| Organizational Commitment..... | 22 |
| OCB | 23 |
| Workplace Stressors..... | 23 |
| Recovery | 23 |
| Social Support | 23 |
| Demographics | 24 |
| Data Analysis | 24 |
| Results | 26 |
| Proactive Coping | 26 |
| Workplace Stressors..... | 26 |
| Recovery..... | 28 |
| Social Support | 30 |
| Discussion..... | 33 |
| Practical Implications..... | 38 |

| | |
|--|----|
| Limitations and Directions for Future Research | 39 |
| Conclusion..... | 41 |
| References | 42 |
| Appendix | 53 |

List of Figures

| | |
|---|----|
| Figure 1 — Hypothesized model of theoretical relationships..... | 20 |
| Figure 2 — Moderating effect of social support on the relationship between recovery and organizational commitment..... | 32 |

List of Tables

| | |
|---|----|
| Table 1 — Means, Standard Deviations, and Intercorrelations of All Study Variables | 27 |
| Table 2 — The Mediating Effect of Recovery on the Relationship between Proactive Coping Style and Outcomes..... | 29 |
| Table 3 — Summary of Results for Moderation of Social Support between Predictors and Outcomes..... | 31 |

Introduction

Workplace stress has been a widely discussed and studied phenomenon in organizational literature and practice, with much of this research focusing on the “stressor-strain” relationship. Workplace stressors include aspects of the workplace that lead to stress, such as organizational constraints, lack of necessary supplies or resources, budget cuts, frequent interruptions from others (Peters & O’Connor, 1980), high workload, ambiguous directions or roles, and conflicting role requirements (Rizzo, House, & Lirtzman, 1970). These stressors have been found to relate to negative employee outcomes, known as strains (Spector & Jex, 1998). Workplace strains can take the form of mental and physical symptoms such as anxiety, higher risk of cardiovascular disease, and headaches and muscle pain (Atkinson, 2004; Beehr, Ragsdale, & Kochert, 2014; Hobfoll, 1989). Workplace strains can also manifest in individual feelings or attitudes toward the organization they belong to, such as decreased job satisfaction and organizational commitment, and increased turnover intentions (Podsakoff, LePine, & LePine, 2007). In addition, workplace strains can alter employees’ behaviors and lead to decreased task and contextual performance (Motowidlo, Packard, & Manning, 1986) or increased counterproductive workplace behaviors (Spector & Fox, 2005).

While we have gained a good understanding of the relationship between workplace stressors and strains, in a recent review of occupational health psychology, Houdmont and Leka (2010) noted a lack of research examining how healthy workplaces can be created. One method that has been proposed is the use of coping styles, in which individuals can manage stressors and create healthier workplaces, however much of the previous literature has focused primarily on reactive coping styles (Greenglass & Fiksenbaum, 2009).

Reactive styles of coping may buffer stressors, but they only occur after a stressful event has taken place, and consequently after some of the negative effects of stress have already impacted the individual. It is therefore imperative to understand methods with which individuals can reduce stressors before they occur. The goal of this study was to understand the benefits of the proactive coping style as a potential way of reducing stressors and subsequent strains. The relationships between the proactive coping style and employee well-being, job satisfaction, organizational commitment, and organizational citizenship behaviors was investigated. Furthermore, workplace stressors and recovery experiences were examined as mediators of the relationships between the proactive coping style and the aforementioned outcomes. Finally, social support was examined as an outcome of proactive coping style and a moderator of the stressor-strain relationship.

Theoretical Background

Employees encountering workplace stressors must find ways to deal with their experiences in order to combat the potentially detrimental effects. Psychological stress is defined as a reaction to the environment in which there is a loss of resources coupled with a lack of subsequent efforts to regain these lost resources (Hobfoll, 1989). Resources are objects, characteristics, energy or behaviors that create value to the individual, such as social support or recreational leisure activities. Lazarus and Folkman (1987) proposed a transactional model of stress, including two appraisals of the stressful environment. The primary appraisal determines how much individuals feel the stressful situation is significant or relevant to their personal life (Lazarus, 1991). If a situation is determined to have a significant personal impact, the emotional potential for harm is recognized, and the individual will proceed to the secondary appraisal. During the secondary appraisal, individuals choose available coping methods to engage in. The coping method chosen is ultimately a reflection of how much control individuals perceive they have over the stressful situation (Perrewé & Zellers, 1999).

In addition to the transactional stress model, the Conservation of Resources (COR) model proposes that when individuals experience a stressor they continually lose

resources as they attempt to use the resources to combat or buffer the negative impact of the stressor (Hobfoll, 1989). This can create a problem as most efforts to deplete resources in the face of a stressor occur after the stressor has already occurred, and likely begun to drain the individual of his or her resources. Once resources are depleted, the individual has fewer resources to further combat the stressors, and thus experiences increased strains. It is therefore important to understand the ways in which individuals can avert the resource depletion process that occurs in response to stressful environments.

Proactive coping is proposed to be one such method in which individuals can reduce the experience of stress before the stressor occurs. Rather than leaving individuals open to resource loss and other effects of stressors, the proactive coping framework proposes individuals can prepare for stressful events before they occur, which in turn leads to personal growth and goal fulfillment (Aspinwall & Taylor, 1997; Stiglbauer & Batinic, 2015). The proactive coping style will enable individuals to gain mastery and fulfill goals, while simultaneously providing resources for potential future stressors before they have the opportunity to negatively impact the employee. Therefore, this coping style may be beneficial in creating healthier workplace environments and provide a solution to the issue of workplace stressors.

Introduction to Coping Styles

Coping refers to cognitive and behavioral efforts to master and manage a troubling environment, in this case the stressful work environment (Folkman & Lazarus, 1980). Based on the transactional model of stress (Lazarus & Folkman, 1987), two major styles of reactive coping arise: problem-focused coping style and emotion-focused coping style (Folkman & Lazarus, 1985). These coping styles have laid the groundwork for the emergence of additional coping theories, such as avoidance-focused coping (Endler & Parker, 1994), and proactive coping (Aspinwall & Taylor, 1997).

Reactive Coping Styles

Problem-focused coping styles involve the regulation of the person-environment experience. Characteristics of the problem-focused coping style include the attempt to control problems by defining them, planning solutions, considering alternative costs and benefits, and choosing a course of action (Lazarus & Folkman, 1984; Rantanen, Mauno, Kinnunen, & Rantanen, 2011). Central to the problem-focused coping style is the belief that an individual has enough control to change a given situation. This sense of control makes the problem-focused coping style particularly effective in buffering the negative effects of stressors after they have occurred. Research has found problem-focused coping styles to benefit work domain well-being markers such as work engagement and job satisfaction (Rantanen et al., 2011). Problem-focused coping styles have also been found to buffer the positive relationship between role stressors and psychological strain (e.g., Bhagat, Krishnan, Nelson, Leonard, Ford, & Billing, 2010).

Emotion-focused coping styles involve the regulation of distressed emotions, and are more common in situations that individuals evaluate as unchangeable (Folkman & Lazarus, 1980). People using emotion-focused coping styles seek to focus on specific aspects of a stressful situation in order to engage in emotional distress reduction, distancing, or positive comparison (Lazarus & Folkman, 1984). A differentiating factor between the emotion-focused coping style and the problem-focused coping style is that the emotion-focused coping style increases comfort levels during a stressful event rather than actively seeking to alleviate the stressor (DeGraff & Schaffer, 2008). In Suls and Fletcher's (1985) meta-analysis, both sensory attention and avoidance mechanisms that are central to the emotion-focused coping style are beneficial coping strategies in the short-term, however the impact of this style on long-term coping is less clear. Further research has found that the emotion-focused coping style is associated with negative outcomes such as work disengagement and job dissatisfaction (Rantenan et al., 2011). Therefore, recommendations often point toward individuals incorporating some form of problem-focused coping style when possible.

Avoidance Coping Style

In addition to the problem-focused coping style and the emotion-focused coping style, Endler and Parker (1994) noted the existence of an avoidance-oriented coping style. Avoidance coping strategies can take place in the form of social diversion or distraction through seeking other tasks to engage in. Research on avoidance-oriented coping has found that this style of coping increases as stressors increase for individuals who believe they have lower perceived social support (Ingledeu, Hardy, & Cooper, 1997). Ingledeu et al. (1997) interpreted these results to imply that individuals under stress will likely avoid the stressor, unless they have the resources or means to address it. Cheng and McCarthy (2013) found that escape avoidance coping, a form of avoidance-oriented coping noted as evasion from a stressor and distortion of reality, exacerbated the negative effects of stressors on work, school, and family satisfaction.

Taken together these forms of coping styles are ultimately reactive, as an individual engages in these coping strategies after experiencing stressful events (Greenglass & Fiksenbaum, 2009). While individuals are engaging in these behaviors in order to prevent further resource loss (Hobfoll, 1989), it is implied that to some degree they still experience a moment of initial resource loss when the stressor is encountered (Aspinwall & Taylor, 1997). However, whether stressful situations can be effectively prevented or eliminated to avoid initial resource loss has received less attention. The current study addresses this gap in literature through the proactive coping framework (Aspinwall & Taylor, 1997) and the proactive coping style (Greenglass, Schwarzer, Jakubiec, Fiksenbaum & Taubert, 1999).

Proactive Coping Style

The proactive coping style is a forward-looking coping strategy that integrates the processes of quality-of-life management with self-regulatory goal attainment (Greenglass et al., 1999). Aspinwall and Taylor (1997) defined the proactive coping process as efforts undertaken in advance of potentially stressful events to prevent or modify them before they occur. Individuals engaging in the proactive coping style are future-oriented, concerned

with goal management rather than risk management, view difficult situations as challenges to positively grow from, and are more likely to follow the proactive coping process. In proactive coping, an individual accumulates resources and actively takes steps to avoid the resource depletion that can result in a spiral of loss prior to a stressful situation arising (Greenglass & Fiksenbaum, 2009). The anticipatory coping style is a similar future oriented coping strategy that seeks to place coping efforts on a critical event that is fairly certain to occur (Folkman & Moskowitz, 2004). However, proactive coping is distinct from the anticipatory coping style in that proactive coping is not designed to address a particular stressor, but rather for general future preparation (Aspinwall & Taylor, 1997).

The targets of proactive coping processes are inherently ambiguous. The proactive coping process conceptually occurs before the anticipatory coping process (Aspinwall & Taylor, 1997). An individual with high proactive coping style is not building a set of resources for a specific event that has occurred or that he or she anticipates occurring. Rather, the proactive coping process involves the accumulation of a general set of resources that allows an individual to navigate a myriad of future stressors. If the coping strategies that an individual engages in are successful, future stressful events and subsequent strains can be eliminated or reduced. It has been noted that the theoretical concept of proactive coping may be difficult to empirically test (Aspinwall & Taylor, 1997); thus rather than examine the process of proactive coping, this research sought to expand the understanding of the proactive coping style. The differentiation between proactive coping process and the proactive coping style allows for the examination of individual differences in coping styles to further reveal the impact of proactive coping process on individual and workplace outcomes. It is expected that employees scoring high in the use of the proactive coping style are more likely to engage in proactive coping process.

One of the primary concerns of occupational stress literature is how to combat many of the detrimental effects of stressors. The proactive coping style provides a potential strategy for individuals to utilize in order to avoid harmful workplace stressors and the resulting strains (Aspinwall & Taylor, 1997). A set of skills, behaviors and resources

allowing an individual to deal with a wide array of ambiguous stressors is a potential benefit to the individual. While the anticipatory coping style is limited to building resources for a particular future stressor, the proactive coping style allows an individual to build and use resources regardless of specific stressors, potentially improving general well-being and satisfaction (Aspinwall & Taylor, 1997). This study examined whether the proactive coping style had direct relationships with individual and organizational outcomes, and if the relationships were mediated by reduction of stressors and increase of recovery behaviors, and how it promotes resource building through social support.

Hypotheses Development

Proactive Coping Style and Health

The proactive coping style is predicted to relate to positive health-related outcomes through the promotion of positive beliefs and development of psychological resources (Greenglass & Fiksenbaum, 2009). Aspinwall and Taylor (1997) suggested the increase in psychological resources may lead to decreased stress and promotion of well-being. Individuals who exhibit more accumulated resources are less likely to be vulnerable to resource loss, and therefore experience decreased levels of stress and increased health benefits (Hobfoll, 1989). The mechanisms through which positive behaviors lead to positive outcomes are proposed to be future-oriented thinking, goal management, and positive motivation (Greenglass & Fiksenbaum, 2009). Aspinwall (2010) notes that there is a positive relationship between future-oriented thoughts and increased self-regulation behaviors.

Increased attention has been given to the overall health and well-being of employees in the workplace, due in part to increased compensation claims and medical costs (Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). Aspinwall (2005) suggests the future-oriented thinking aspect of proactive coping may be associated with positive health outcomes. Greenglass and Fiksenbaum (2009) studied the effects of social support and proactive coping on depression, and found that the effects of positive psychology are positively related to psychological well-being. A study on rehabilitation hospital in-patients found proactive coping predicted distance walked in two minutes, indicating that proactive coping may contribute indirectly to physical health as well (Greenglass, Marques, deRidder, & Behl, 2005). Rather than experiencing a stressful situation and resource loss

before engaging in any reactive coping behavior, those using the proactive coping style will begin the proactive coping process. Through this process, these individuals think about challenging goals and future events as positive challenges, and seek to build resources prior to stressful experiences. Greenglass and Fiksenbaum (2009) also note proactive coping style is positively related to perceived control, and perceived control is in turn associated with decreased stress and improved psychological and physical health (Bledsoe, Brown, Grote, Larkin, & Lemay, 2007; Nonis, Hudson, Logan, & Ford, 1998). Based on this, it is predicted that proactive coping style is likely to have a positive impact on employee psychological and physical health.

Hypothesis 1a: Proactive coping style will be positively related to employee psychological health.

Hypothesis 1b: Proactive coping style will be positively related to employee physical health.

Proactive Coping Style and Job Satisfaction and Commitment

While proactive coping style is predicted to relate to health and well-being, it also has the potential for affecting job satisfaction and organizational commitment. Job satisfaction is defined as “how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (Spector, 1997, p. 2). Organizational commitment is defined as the psychological link an employee has towards his or her organization that makes it less likely that they will leave the organization (Meyer & Allen, 1991). However, the concept of job satisfaction and organizational commitment goes beyond attendance and turnover, and has implications for increased organizational support through an employee building a positive emotional connection and adopting the organizational goals as their own. Proactive coping is perceived as a process that can promote positive moods and has been associated with greater optimism (Uskul & Greenglass, 2005). The development of positive moods and

emotions toward the workplace is anticipated to lead to increased job satisfaction and organizational commitment.

Hypothesis 2: Proactive coping style will be positively related to job satisfaction.

Hypothesis 3: Proactive coping style will be positively related to organizational commitment.

Proactive Coping Style and Organizational Citizenship Behaviors

Organizational Citizenship Behaviors (OCBs) stemmed out of the literature by Borman and Motowidlo (1993) on contextual performance. OCBs are tasks, behaviors or activities an individual engages in that go beyond their prescribed role requirements (Organ & Ryan, 1995). These extra-role activities, while not mandated by the organization, are vital to organizational success (Borman & Motowidlo, 1993).

While the ambiguous nature of proactive coping may be perceived as a potential limitation, this may also be the mechanism through which proactive coping style leads to OCBs. Central to the proactive coping framework is effortful behavior initiated without a contextual basis or clear short-term benefits (Aspinwall & Taylor, 1997; deBoer, van Hooft, & Bakker, 2015). It is this effortful, goal-directed behavior tendency, without immediate concern for short-term benefits, that will lead individuals to be more inclined to engage in OCBs to establish personal and organizational resources.

Research has proposed that since OCBs involve helping others, they should conceptually overlap with received emotional support (Bowling, Beehr, Johnson, Semmer, & Hendricks, 2004). Results from Bowling et al.'s (2004) study showed the more individuals engaged in OCBs, the more social support from coworkers they received. In line with these findings, there is evidence that engaging in OCBs helps individuals build resources for future use. The proactive coping style is conceptually tied to future-oriented thinking and building positive moods (Greenglass & Fiksenbaum, 2009); therefore,

individuals who engage this coping style will likely engage in more OCBs in an effort to promote positive moods and build resources.

Hypothesis 4: Proactive coping style will be positively related to OCBs.

Workplace Stressors

The Job Demands-Resources (JD-R) model proposes that job demands contribute to negative psychological costs for an individual, while job resources provide an opportunity to protect the psychological and physical health of an individual (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). This model defines job demands as “physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs” (Demerouti et al., 2001, p. 501). A continual buildup of these types of stressors will result in experienced strains, which can lead to detrimental personal costs as well as organizational costs (Jex, Bliese, Buzzell, & Primeau, 2001). While proactive coping is proposed to have direct effects on overall well-being, job satisfaction, organizational commitment, it is beneficial to also incorporate workplace stressors as a mediator of these relationships.

According to role stress theory, all individuals must perform a particular role. When factors that prohibit an individual from performing this role exist, such as ambiguous directions, conflict, or overload, he or she will experience stress (Rizzo et al., 1970). Following this assumption, three role stressors become apparent: role ambiguity, role conflict, and role overload. Role ambiguity is defined as lack of necessary information to perform the role, role conflict is defined as the incompatibility between expectations of a single role, and role overload is defined as the extent to which time and resources devoted to a role fail to fulfill the duties required (Rizzo et al., 1970; Örtqvist & Wincent, 2006).

Örtqvist and Wincent (2006) conducted a meta-analysis on role stressors, and found that while each of the sub-facets tends to have similar outcomes, there are varying

degrees of impact depending on the outcome variable of interest. In relation to job satisfaction, a majority of studies focused on its relationship with role ambiguity. Meta-analytic results found that role ambiguity and role conflict have a significant medium, negative effect on job satisfaction, while role overload has a smaller, yet still significant negative effect. Similarly, all three sub-facets of role stressors have been found to significantly, negatively relate to organizational commitment with role ambiguity and role conflict revealing medium effect sizes and role overload having a small overall effect size. The collective findings of role overload consistently revealing smaller or nonexistent relationships to various organizational outcomes suggests that role overload may have a more complex relationship with how individuals perceive the stressor (Eatough, Chang, Miloslavica, & Johnson, 2011; Örtqvist & Wincent, 2006). Therefore, for the purpose of this study, only role ambiguity and role conflict were examined, as these relationships are clearly, and consistently, negatively related to the organizational outcome variables of interest.

The proactive coping style is characterized by a desire for goal management over risk management, and seeking challenging situations that promote personal growth (Aspinwall & Taylor, 1997). Individuals utilizing this coping strategy actively seek to build skills and social support systems. It is characteristic of individuals utilizing this coping style to develop constructive paths of action or growth that are then reinforced by acting on these paths (Schwarzer & Luszczynska, 2008). For example, an individual may understand that a future stressor may occur. Furthermore, this individual is aware that developing a social network can help to them to manage various negative impacts of the stressor, and will therefore seek to develop a social network prior to any experienced stress. When a stressor does occur, these individuals who engaged in the proactive coping style are more inclined to mobilize the developed resources when needed (Greenglass & Fisksenbaum, 2009).

It follows that these proactive behaviors would extend to reducing role stressors. Employees are often aware of negative consequences that can arise from ambiguous or complex roles and tasks (Campbell, 1988). An individual seeking to eliminate future stress

may develop the habit of proactively seeking information to reduce role ambiguity before it becomes a major problem, thereby increasing their job satisfaction (Chung-Yan & Butler, 2011). In addition to role ambiguity, role conflict has been found to relate to increased work-related anxiety (Han, Wang, & Dong, 2014). Individuals engaging in the proactive coping style may be cognizant of the potential for role conflict issues in their work environment. These individuals may collect information, build relationships with peers and supervisors, and identify sources of future support (Aspinwall & Taylor, 1997; Han, Wang, & Dong, 2014) that will help them to prevent or eliminate role conflict. Therefore, through the proactive coping style, individuals will reduce or eliminate the occurrence of stressors and provide themselves with resources for averting and handling role stressors they arise.

Hypothesis 5a: Proactive coping style will be negatively related to role ambiguity.

Hypothesis 5b: Proactive coping style will be negatively related to role conflict.

In accordance with the transactional theory of stress (Lazarus, 1990), stressful work events that are perceived as threats can have detrimental effects on employee well-being. Role ambiguity and role conflict are often seen as direct threats to accomplishing tasks as well as the broader job role (Rizzo et al., 1970). Furthermore, role stressors have been shown to have a direct, negative effect on well-being (Parasuraman, Greenhaus, & Granrose, 1992), with some empirical results pointing to the specific interaction of high role stressors and low job control as predicting physical illness and psychological strain (Bakker & Demerouti, 2007; Karasek, 1979; Schnall, Landsbergis, & Baker, 1994). The proactive coping style reduces or eliminates the stress that occurs as a result of role stressors (Aspinwall & Taylor, 1997), leading to increased well-being in the individual.

Hypothesis 6a: Role ambiguity will mediate the relationship between proactive coping and employee psychological health.

Hypothesis 6b: Role ambiguity will mediate the relationship between proactive coping and employee physical health.

Hypothesis 7a: Role conflict will mediate the relationship between proactive coping and employee psychological health.

Hypothesis 7b: Role conflict will mediate the relationship between proactive coping and employee physical health.

Past research on role stressors has primarily focused on the negative relation to task performance; however, the impact of role stressors has been shown to also extend to extra-role behaviors, job satisfaction and organizational commitment (Eatough et al., 2011; Örtqvist & Wincent, 2006; Yousef, 2002). Due to the inhibitory nature of role stressors, which can prevent individuals from completing their tasks and elicit negative emotions, it is likely that OCB behaviors will be reduced. Furthermore, if job satisfaction is decreased through the presence of role stressors (Örtqvist & Wincent, 2006), it follows that employees dissatisfied with their jobs will reduce OCB efforts (Eatough et al., 2011). Indeed, research reveals that role ambiguity and role conflict negatively relate to OCBs (Örtqvist & Wincent, 2006). As previously stated, the proactive coping style would reduce or eliminate the occurrence of role stressors (Aspinwall & Taylor, 1997), and role stressors have been found to predict job satisfaction, organizational commitment and OCB's (Eatough, Chang, Miloslavica, & Johnson, 2011; Örtqvist & Wincent, 2006; Yousef, 2002); therefore, it is reasonable to propose that role stressors might mediate the relationship between proactive coping style and the outcomes.

Hypothesis 8a: Role ambiguity will mediate the relationship between proactive coping style and job satisfaction, organizational commitment, and OCBs.

Hypothesis 8b: Role conflict will mediate the relationship between proactive coping style and job satisfaction, organizational commitment, and OCBs.

Recovery

Much of the literature on occupational stress focuses on the negative outcomes and impact of stressors on the individual (Ragsdale, Beehr, Grebner, & Han, 2011). However, while it is important to understand the negative impact of stressors, it is valuable to seek potential solutions to these negative outcomes. Recovery provides one such potential solution to experienced stressors and strains. Recovery is the return of allostatic systems to a baseline after a stressor has been experienced (Geurts & Sonnentag, 2006), and consists of both recovery activities and recovery experiences (Ragsdale et al., 2011). Meijman and Mulder (1998) proposed the effort-recovery model that is similar to the COR theory (Hobfoll, 1989). This model argues that stressors require the use and drainage of resources in order to deal with them. If these resources are fully drained and not replenished, individuals will experience increased and longer-term strain outcomes. Resources are not only limited to recovery experiences and behaviors, but can also be extended to health-maintenance behaviors such as diet, exercise, sleep and leisure activities (Fodor, Antoni, Wiedemann, & Burkert, 2014).

Much like coping research, recovery research often evaluates recovery behaviors as one strategy individuals engage in to manage stressful events. Sonnentag and Fritz (2007) broke down recovery experiences into four sub facets: psychological detachment, relaxation, mastery, and control during leisure time. Psychological detachment is defined as the process of being mentally disengaged from work-related activities (Sonnentag & Fritz, 2007). This form of detachment goes beyond the physical removal of oneself from work, to include the absence of work-related thoughts and issues. Empirical research has found that psychological detachment moderates the relationship between job stressors and burnout (Etzion, Eden, & Lapidot, 1998). The proactive coping style leads an individual to engage in self-regulatory behaviors and actions (Aspinwall, 2010). These self-regulatory behaviors would be necessary to exercise in order to develop a habit of psychological detachment from work. Psychological detachment behaviors would in turn act as a resource which individuals could pull from when future stressors are encountered.

Relaxation refers to “a state of low activation and increased positive affect” (Sonnentag & Fritz, 2007, p. 206). These behaviors can be facilitate actions that bring enjoyment to the individual, or actions that require little effort or challenge. The key is that the behaviors will reduce overall activation and increase positive affect, helping to restore the individual to a pre-stressor state. Research has found that relaxation has a direct effect on reducing work-related stress (Van der Klink, Blonk, Schene, & Van Dijk, 2001). Recovery activities provide the individual with an opportunity to accumulate resources that help to reduce stressors. A core aspect of the proactive coping style is resource accumulation (Aspinwall & Taylor, 1997), and therefore this coping style would guide individuals to engage in recovery behaviors that increase their resources and protect them from future stressors.

Mastery experiences of recovery refer to off-job activities that challenge or provide experiences to the individual in other domains (Sonnentag & Fritz, 2007). Research has found mastery experiences to reduce exhaustion (Fritz & Sonnentag, 2006) and improve affect (Rook & Zijlstra, 2006; Sonnentag & Natter, 2004). Similar to psychological detachment, there is a degree of self-regulation central to the proactive coping style that is necessary to engage in mastery experiences. The future-thinking orientation associated with recognizing the value of, and engaging in, mastery experiences is core to the proactive coping style (Aspinwall & Taylor, 1997).

Control during leisure time is based on the general desire an individual has to control events in their life, and is defined as the ability an individual has to choose between options during leisure time (Sonnentag & Fritz, 2007). Research has found that control leads to positive reevaluations of stress and increased psychological well-being (Lazarus, 1966). Control during leisure would allow an individual to choose a particular activity they enjoy and from which they can reap the most benefits. The detection of potential sources of stress, and the subsequent actions that would manage the negative impact of stressors, is an important factor in the proactive coping process (Aspinwall & Taylor, 1997). The proactive coping style would help to guide individuals in engaging in the behaviors that best suit them and controlling their leisure time to their best advantage. Furthermore, the

proactive coping style frames future stressors as potential challenges, rather than threats, when the individual has high self-esteem and control beliefs (Aspinwall & Taylor, 1997; Blascovich & Tomaka, 1996). Control over leisure time could help to add to an individual's control beliefs. Therefore it is proposed that the proactive coping style will be positively related to all of these recovery behaviors.

Hypothesis 9: Proactive coping style will be positively related to recovery.

Research on recovery activities has found that the more individuals engage in recovery behaviors, the greater their well-being (Ragsdale et al., 2011; Sonnentag, 2001). If individuals are unable to engage in recovery activities, the increase in unfulfilled need for recovery will result in emotional exhaustion and fatigue (de Croon, Sluiter, Blonk, Broersen, & Frings-Dresen, 2004). The fatigue resulting from unfulfilled recovery manifests in declined interest and involvement in work, as well as decreased organizational commitment (Meijman & Schaufeli, 1996). Hunter and Wu (2015) conceptualized recovery through workday breaks, and found that these breaks allowed employees to recover resources, leading to decreased somatic symptoms such as headache and eyestrain, decreased emotional exhaustion, and increased job satisfaction and OCBs. Individuals who engage in proactive coping styles are future-oriented in conceptualizing the negative effects of stress, and consequently more likely to pursue and control their leisure and relaxation activities in ways that will lead to increased psychological detachment and mastery experiences, and ultimately increase beneficial well-being and organizational outcomes. Therefore, in line with the proactive coping framework (Aspinwall & Taylor, 1997), recovery behaviors have the potential to positively mediate the relationship between proactive coping and positive outcomes.

Hypothesis 10: Recovery behaviors will mediate the relationship between proactive coping and employee overall well-being, job satisfaction, organizational commitment and OCBs.

Social Support

Job resources include physical, psychological, social, or organizational aspects of the job that may serve to help achieve work goals, reduce job demands and stimulate personal growth (Demerouti et al., 2001). Social support is one such resource often studied within a workplace stress context (Beehr, Farmer, Glazer, Gudanowski, & Nair, 2003). Social support can come from supervisors, coworkers within the organization, as well as external sources such as family and friends. Literature suggests social support plays a vital role in managing extant stressors (Cohen & Wills, 1985). A strong social network and support group is suggested to be a valuable defining aspect of the proactive process (Aspinwall & Taylor, 1997). Therefore, in line with the proactive coping framework, individuals who engage in the proactive coping style will be more likely to build and maintain social groups for support in effort to build resources prior to stressful events.

Hypothesis 11: Proactive coping style will be positively related to social support.

Central to the transactional model of stress (Lazarus & Folkman, 1984), social support strategies may moderate the effects of stress on negative outcomes. Social support from supervisors, coworkers, family members and friends has been shown to decrease the effects of job stressors on psychological distress (Munro, Rodwell, & Harding, 1998; Terry et al., 1993). Research on work-family conflict has provided evidence for the buffering effects of social support on the stressor-strain relationship. Lapierre and Allen (2006) found that family support provided individuals with emotional sustenance that positively related to physical well-being. Furthermore, supervisor support indirectly aided employee's affective well-being through encouragement, concern and support for the employee's family obligations. Social support has also been found to negatively relate to burnout and positively relate to job satisfaction and job productivity (Baruch-Feldman, Brondolo, Ben-Dayana, & Schwartz, 2002). Studies have also found the moderating effect of social support on the stressor-strain relationship, such that increased social support decreased the relationship between work overload and job satisfaction and turnover intentions (Buttigieg

& West, 2013). Therefore, it is proposed here that social support may serve to further buffer the overall negative relationship between stressors and workplace outcomes.

Hypothesis 12a: Social support will moderate the relationships between role ambiguity and health, job satisfaction, organizational commitment and OCBs, such that the relationships will be weaker when social support is higher.

Hypothesis 12b: Social support will moderate the relationships between role conflict and health, job satisfaction, organizational commitment and OCBs, such that the relationships will be weaker when social support is higher.

As social support can potentially buffer the negative effects of workplace stressors on individual and organizational outcomes, it is proposed that social support will simultaneously moderate the relationship between recovery and workplace outcomes. Engaging in social activities and pulling from one's social support provides individuals with a mechanism to psychologically detach from work (ten Brummelhuis & Bakker, 2012). While recovery activities can encompass a variety of actions from household tasks to exercising (Meijman & Mulder, 1998), research has found that recovery is particularly effective in restoring work engagement when activities include actions that allow for replenishing and gaining resources (ten Brummelhuis & Bakker, 2012). Engaging with one's social network not only leads to detachment from work, but also creates the potential for building additional resources. Additionally, developing a social network of supervisors and coworkers who are understanding of family and health needs can provide employees with physical resources needed to engage in recovery behaviors, such as coworker help in completing work tasks to allow for employees to get home earlier, or flexible schedules to meet family or other recovery demands. It is therefore proposed that social support will strengthen the positive relationship between recovery and individual and organizational outcomes.

Hypothesis 13: Social support will moderate the relationships between recovery and employee health, job satisfaction, organizational commitment and OCBs, such that the relationships will be stronger when social support is higher.

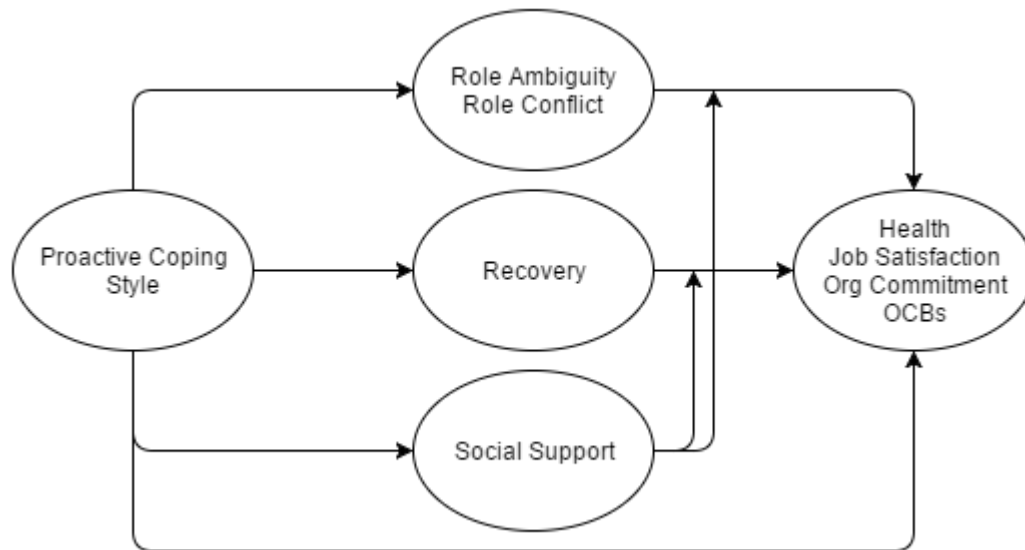


Figure 1. Hypothesized model of theoretical relationships.

Method

Participants

Participants were recruited through social media, online forums, and word-of-mouth sources to complete a 15-minute online survey. In order to qualify for participation in the study, participants were required to be currently employed and work a minimum of 20 hours a week, ensuring relevant organizational outcomes could be measured. An initial set of 298 responses were collected over a two-week period using snowball sampling. Of 298 responses, 221 passed initial qualification checks and completed the entire survey. The average age of participants was 36.24 years ($SD = 13.48$), and most of the participants were White (67.4%). The average number of hours worked was 39.88 ($SD = 11.54$) and mean job tenure was 7.44 years ($SD = 8.48$). Participants represented a variety of private and public industries, with 25.3% working in professional or technical services, 19.0% working in educational services, and 14.9% working in health care or social assistance.

Measures

Proactive Coping

The proactive coping style was measured using the Proactive Coping Inventory (PCI; Greenglass et al., 1999) with 14 items. The items are rated on a 4 point Likert-type scale, with 1 representing *not at all*, and 4 representing *completely true*. An example item for the Proactive Coping Subscale is “I am a ‘take charge’ person”. Coefficient alpha for this sample was .82.

Health

Psychological health was measured using a 7-item Psychological Well-Being Measure (McDonald-Miszczak & Wister, 2005). The Psychological Well-Being Measure is assessed on a 4-point Likert-type scale, with 1 representing *none of the time* and 4 representing *all of the time*. Respondents were presented with items such as “depressed” or “in control,” and asked to respond how much of the time within the past month they have felt such emotion. Coefficient alpha for this sample was .82. Physical health was measured using a 3-item Recent Physical Health Measure (Ruthig, Chipperfield, Newall, Perry, & Hall, 2007). The Recent Physical Health Measure is assessed on a 5-point Likert-type scale, with 1 representing *almost never true* and 5 representing *almost always true*. An example item is, “during the past month, I have often felt physically unwell”. Coefficient alpha for this sample was .81.

Job Satisfaction

Job satisfaction was measured using the 3-item Job Satisfaction Scale (Parkes, Mendham, & von Rabenau, 1994). Items are assessed on a 7-point frequency Likert type scale with 1 representing *not at all satisfied* and 7 representing *very satisfied*. An example item is, “all in all, how satisfied would you say you are with your present job”. Coefficient alpha for this sample was .88.

Organizational Commitment

Organizational commitment was measured using the 6-item Affective Commitment to the Organization dimension (ACS-ORG) of the Three-Component Model of Organizational Commitment (Meyer, Allen, & Smith, 1993). Items are assessed on a 7-point agreement Likert-type scale, with 1 representing *strongly disagree* and 7 representing *strongly agree*. An example items is, “this organization has a great deal of personal meaning for me”. Coefficient alpha for this sample was .85.

OCB

OCBs were measured using the 10-item Organizational Citizenship Behaviors Checklist (OCB-C; Spector, Bauer, & Fox, 2010). Participants were presented with the prompt “how often have you done each of the following things on your present job”, and then provided responses to the following 10 items rated on a 5-point frequency Likert-type scale, with 1 representing *never* and 5 representing *every day*. An example item includes “volunteers for extra work assignments”. Coefficient alpha for this sample was .84.

Workplace Stressors

Role ambiguity and role conflict were measured with the 14-item Abridged Role Conflict and Ambiguity Scales (Murphy & Gable, 1988). This scale is a reduced scale developed from Rizzo et al.’s (1970) original scale. Items are assessed on a 7-point Likert-type scale, with 1 representing *definitely not true* and 7 representing *extremely true*. An example item for role conflict is “I receive incompatible requests from two or more persons”, and an example item for role ambiguity is “I know exactly what is expected of me” (reverse coded). Coefficient alpha for this sample was .81 for role ambiguity, and .74 for role conflict.

Recovery

Recovery behaviors were measured using the 16-item Recovery Experience Questionnaire (Sonnentag & Fritz, 2007) to assess psychological detachment, relaxation, mastery experiences and control. Items are measured on a 5-point Likert-type agreement scale, with 1 representing *I do not agree at all*, and 5 representing *I fully agree*. Example items from the scale include, “I learn new things”, and “I do things that challenge me”. Coefficient alpha for this sample was .86.

Social Support

Social support was measured using the 6-item short form of the Survey of Perceived Organizational Support (POS; Eisenberger, Huntington, Hutchison & Sowa,

1986) to assess supervisor support, and the 12-item Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet & Farley, 1988) to assess family and friend social support. Items are rated on a 7-point Likert-type scale with 1 representing *very strongly disagree* and 7 representing *very strongly agree*. An example item from the POS includes, “my supervisor really cares about my well-being”, and example items from the MSPSS scale include, “my family really tries to help me”, and “I can talk about my problems with my friends”. Coefficient alpha for this was .69 sample for POS, and .91 for MSPSS.

Demographics

Participants were asked to provide basic demographic information in addition to the survey items. This information included age, ethnicity, employment status, employment industry, employment tenure, weekly hours worked, and highest level of education completed. See Appendix for list of all scale items.

Data Analysis

Zero-order correlations were conducted to examine the relationships among all study variables. Regression analyses were conducted to test the mediation and moderation hypotheses. Baron and Kenny’s (1986) widely accepted procedure was used to test the hypothesized mediation effect. The following four steps encompass this procedure. First, a significant relationship between the predictor variable (i.e., proactive coping style) and the outcome variable must be supported. Second, a significant relationship between the predictor variable and the mediator variable must be supported. Third, the mediator variable must affect the outcome variable while controlling for the effect of the predictor variable. Fourth, the relationship between the predictor variable and the outcome variable is examined for any reduction after controlling for the mediator variable, in order to determine if the mediation is full or partial.

To test the moderation hypotheses a hierarchical multiple regression analysis was conducted, consisting of the following steps. First, all relevant variables were standardized to avoid multicollinearity. Next, a regression was run between the predictor variable, the moderator variable and the outcome variables to determine if the effects are significant. Finally, an interaction term was created from the centered predictor and mediator variables, and added to the regression model to determine if there is a significant interaction term (Aiken & West, 1991).

Results

Means, standard deviations and intercorrelations of all study variables are presented in Table 1.

Proactive Coping

Proactive coping style was found to significantly and positively relate to psychological health ($r = .47, p < .01$), physical health ($r = .24, p < .01$), job satisfaction ($r = .20, p < .01$), organizational commitment ($r = .25, p < .01$), and OCBs ($r = .36, p < .01$), thus Hypotheses 1a, 1b, 2, 3, and 4 were supported.

Workplace Stressors

Correlational analyses showed that proactive coping style did not significantly relate to role ambiguity ($r = -.13, p = n.s.$) or role conflict ($r = -.02, p = n.s.$) (Table 1). Therefore, Hypotheses 5a and 5b were not supported. Furthermore, due to the lack of support in proactive coping style predicting role ambiguity ($\beta = -.13, p = n.s.$) or role conflict ($\beta = -.02, p = n.s.$), all mediation hypotheses regarding role ambiguity and role conflict could not be performed, thus Hypotheses 6a, 6b, 7a, 7b, 8a and 8b were not supported.

Table 1. Means, Standard Deviation, and Intercorrelations of All Study Variables

| Variables | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------------------------|----------|-----------|-------|-------|-------|--------|--------|--------|--------|--------|-------|----|
| 1. Proactive Coping Style | 3.22 | .37 | - | | | | | | | | | |
| 2. Psychological Health | 3.05 | .46 | .47** | - | | | | | | | | |
| 3. Physical Health | 3.54 | .93 | .24** | .45** | - | | | | | | | |
| 4. Job Satisfaction | 4.84 | 1.53 | .20** | .33** | .12 | - | | | | | | |
| 5. Organizational Commitment | 3.97 | 1.12 | .25** | .24** | .12 | .63** | - | | | | | |
| 6. OCB | 3.22 | .73 | .36** | .16* | .03 | .17* | .29** | - | | | | |
| 7. Role Ambiguity | 3.07 | .94 | -.13 | -.11 | -.05 | -.36** | -.29** | .09 | - | | | |
| 8. Role Conflict | 4.00 | 1.32 | -.02 | -.08 | -.08 | -.40** | -.24** | .19** | .58** | - | | |
| 9. Recovery | 3.60 | .57 | .17* | .30** | .21** | .16* | .01 | -.19** | -.27** | -.15* | - | |
| 10. Social Support | 5.43 | .75 | .28** | .40** | .06 | .41** | .38** | .16* | -.29** | -.25** | .23** | - |

Note: $n = 221$, * $p < .05$, ** $p < .01$

Recovery

Proactive coping style was found to significantly and positively relate to recovery ($r = .17, p < .05$), supporting Hypothesis 9 (Table 1). Table 2 presents the results of the mediation analysis. In Step 1 of the mediation model, recovery was excluded from the model, and proactive coping style significantly predicted psychological health ($b = .57, p < .001$), physical health ($b = .53, p < .01$), job satisfaction ($b = .80, p < .05$), organizational commitment ($b = .75, p < .001$), and OCBs ($b = .70, p < .001$). Step 2 showed that proactive coping style significantly predicted recovery ($b = .26, p < .05$). Step 3 revealed that when controlling for proactive coping style, recovery significantly predicted psychological health ($b = .18, p < .001$), physical health ($b = .30, p < .01$), job satisfaction ($b = .40, p < .05$), and OCBs ($b = -.33, p < .001$), but did not significantly predict organizational commitment ($b = -.06, p = n.s.$). Finally, the results showed that when controlling for recovery, proactive coping style remained significant predictors of psychological health ($b = .52, p < .001$), physical health ($b = .45, p < .01$), job satisfaction ($b = .71, p < .01$), and OCBs ($b = .79, p < .001$), indicating partial mediation between these variables.

Bootstrapping results indicated that the indirect effect was significant between the proactive coping style and psychological health (LL = 0.02, UL = 0.09), physical health (LL = 0.02, UL = 0.18), job satisfaction (LL = 0.01, UL = 0.28), and OCBs (LL = -0.18, UL = -0.03). The indirect effect was not significant between the proactive coping style and organizational commitment (LL = -0.11, UL = 0.05). Overall, Hypothesis 10 was partially supported such that recovery partially mediated the relationship between proactive coping and psychological health, physical health, job satisfaction, and OCBs, but not organizational commitment.

Table 2. The Mediating Effect of Recovery on the Relationship between Proactive Coping Style and Outcomes

| Steps | Psychological Health | | | Physical Health | | | Job Satisfaction | | | Organizational Commitment | | | OCB | | | Recovery | | | |
|-----------------------|----------------------|-----------------------|------------------|------------------|-----------------------|------------------|------------------|-----------------------|------------------|---------------------------|-----------------------|--------------|-------------------|-----------------------|------------------|----------|-----------------------|--------------|------------------|
| | <i>b</i> | <i>R</i> ² | ΔR^2 | <i>b</i> | <i>R</i> ² | ΔR^2 | <i>b</i> | <i>R</i> ² | ΔR^2 | <i>b</i> | <i>R</i> ² | ΔR^2 | <i>b</i> | <i>R</i> ² | ΔR^2 | <i>b</i> | <i>R</i> ² | ΔR^2 | |
| Step 1: PCS | .57 ^c | .22 ^c | | .53 ^b | .05 ^b | | .80 ^b | .04 ^b | | .75 ^c | .06 ^c | | .70 ^c | .13 ^c | | | | | |
| Step 2: PCS | | | | | | | | | | | | | | | | | | | |
| Step 3/4: Recovery | .18 ^c | .27 ^c | .05 [†] | .30 ^b | .08 ^b | .03 [†] | .36 ^a | .06 ^b | .02 [†] | -.06 | .06 ^c | .00 | -.33 ^c | .19 ^c | .06 [†] | | | | .26 ^a |
| PCS | .52 ^c | | | .46 ^b | | | .71 ^b | | | .77 ^c | | | .79 ^c | | | | | | |

Note: ^a $p < .05$, ^b $p < .01$, ^c $p < .001$, [†] Partial Mediation Effect

Social Support

Proactive coping style was found to significantly and positively relate to social support ($r = .28, p < .01$), providing support for Hypothesis 11 (Table 1).

Hypothesis 12a proposed that social support would moderate the relationship between role ambiguity and the study outcome variables, such that the initial relationships would be weaker when social support is increased. Table 3 presents the results from the moderation analysis. Role ambiguity and social support accounted for a significant amount of variance in psychological health ($R^2 = .16, p < .001$), job satisfaction ($R^2 = .22, p < .001$), organizational commitment ($R^2 = .18, p < .001$), and OCBs ($R^2 = .05, p < .01$), but did not account for a significant amount of variance in physical health ($R^2 = .01, p = n.s.$). After the interaction term between role ambiguity and social support was added to the model (Table 3), it was found that the interaction did not account for a significant amount of variance in psychological health ($\Delta R^2 = .01, p = n.s.$), job satisfaction ($\Delta R^2 = .00, p = n.s.$), organization commitment ($\Delta R^2 = .00, p = n.s.$), or OCBs ($\Delta R^2 = .00, p = n.s.$). Therefore, Hypothesis 12a was not supported.

Hypothesis 12b proposed that social support would moderate the relationship between role conflict and the study outcome variables, such that the initial relationships would be weaker when social support is increased. Table 3 presents the results from the moderation analysis. Role conflict and social support accounted for a significant amount of variance in psychological health ($R^2 = .16, p < .001$), job satisfaction ($R^2 = .26, p < .001$), organizational commitment ($R^2 = .17, p < .001$), and OCBs ($R^2 = .08, p < .01$), but did not account for a significant amount of variance in physical health ($R^2 = .01, p = n.s.$). After the interaction term between role conflict and social support was added to the model (Table 3), it was found that the interaction did not account for a significant amount of variance in psychological health ($\Delta R^2 = .00, p = n.s.$), job satisfaction ($\Delta R^2 = .00, p = n.s.$), organization commitment ($\Delta R^2 = .00, p = n.s.$), or OCBs ($\Delta R^2 = .00, p = n.s.$). Therefore, Hypothesis 12b was not supported.

Hypothesis 13 proposed that social support would moderate the relationship between recovery and the study outcome variables, such that the initial relationships would be stronger when social support is increased. Table 3 presents the results from the moderation analysis. Recovery and social support accounted for a significant amount of variance in psychological health ($R^2 = .20, p < .001$), physical health ($R^2 = .05, p < .01$), job satisfaction ($R^2 = .17, p < .001$), organizational commitment ($R^2 = .15, p < .001$), and OCBs ($R^2 = .08, p < .01$). After the interaction term between recovery and social support was added to the model (Table 3), it was found that the interaction accounted for a significant amount of variance in organizational commitment ($\Delta R^2 = .02, p < .05$), but the interaction did not account for a significant amount of variance in psychological health ($\Delta R^2 = .01, p = n.s.$), physical health ($\Delta R^2 = .00, p = n.s.$), job satisfaction ($\Delta R^2 = .01, p = n.s.$), and OCBs ($\Delta R^2 = .01, p = n.s.$). Figure 2 shows that for individuals with low social support, recovery has a positive relationship with organizational commitment, however for individuals with high social support recovery has a negative relationship with organizational commitment. Therefore, although social support did moderate the relationship between recovery and organizational commitment, it was not in the expected directions, and thus Hypothesis 13 was not supported.

Table 3. Summary of Results for Moderation of Social Support between Predictors and Outcomes

| Predictors | Psychological Health | Physical Health | Job Satisfaction | Organizational Commitment | OCBs |
|---------------------------------|----------------------|-----------------|-------------------|---------------------------|--------|
| Role Ambiguity | -.11 | -.05 | -.40 [†] | -.29 [†] | .09 |
| Social Support | .40 [†] | .06 | .41 [†] | .38 [†] | .16** |
| Role Ambiguity X Social Support | .16* | .03 | .08 | .07 | -.04 |
| ΔR^2 | .01 | .00 | .00 | .00 | .00 |
| Role Conflict | -.08 | -.08 | -.40 [†] | -.24 [†] | .19** |
| Social Support | .40 [†] | .06 | .41 [†] | .38 [†] | .16** |
| Role Conflict X Social Support | .07 | -.01 | .02 | .00 | -.01 |
| ΔR^2 | .00 | .00 | .00 | .00 | .00 |
| Recovery | .30 [†] | .21** | .15** | .01 | -.19** |
| Social Support | .40 [†] | .06 | .41 [†] | .38 [†] | .16** |
| Recovery X Social Support | -.16* | .01 | -.16** | -.17** | -.12* |
| ΔR^2 | .01 | .00 | .01 | .02* | .01 |

Note: * $p < .05$, ** $p < .01$, [†] $p < .001$.

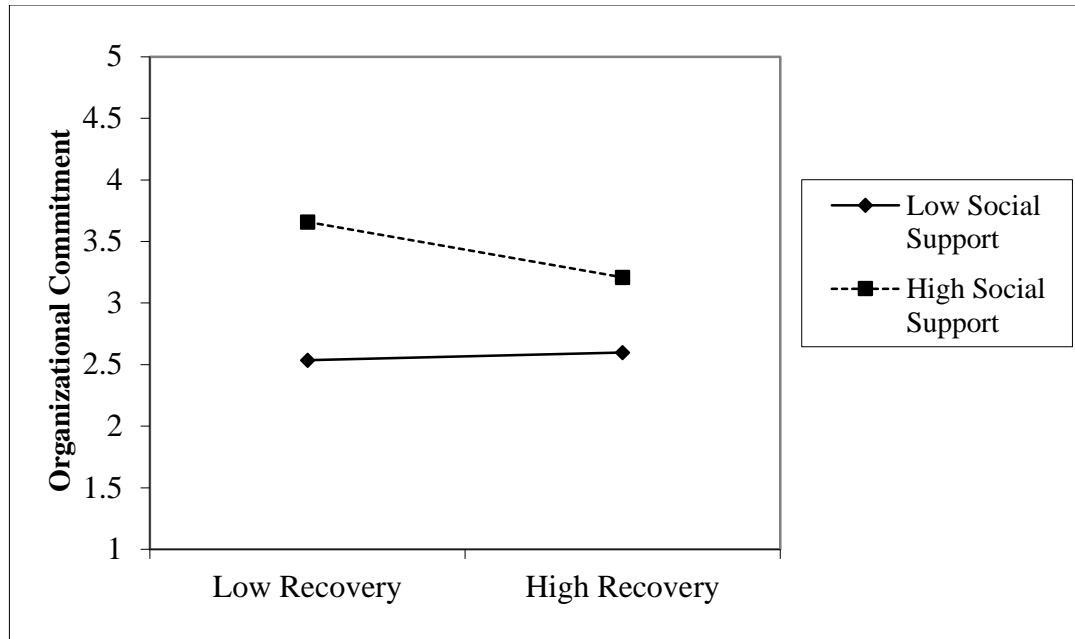


Figure 2. Moderating effect of social support on the relationship between recovery and organizational commitment.

Discussion

As literature on the impact of workplace stressors on employees and organizational outcomes continues to grow, there is a need for increased understanding in strategies employees can engage in to eliminate these outcomes. The purpose of this study was to examine the proactive coping style (Greenglass & Fiksenbaum, 2009) as antecedents of individual and organizational outcomes, and if these relationships were mediated by workplace stressors and recovery, and moderated by social support. Specifically, it was proposed that the proactive coping style would positively relate to psychological health, physical health, job satisfaction, organizational commitment, and OCBs. Results supported these hypotheses, indicating that the proactive coping style can potentially be a beneficial strategy employees engage in to positively impact their personal and organizational well-being. These findings further extend the growing theoretical knowledge domain on proactive coping literature and positive psychology, providing support for this coping framework and the promotion of positive individual and organizational outcomes.

Beyond the direct impact of the proactive coping style on individual and organizational outcomes, this study proposed potential mechanisms through which proactive coping style might lead to positive outcomes. It was proposed that workplace stressors, specifically role ambiguity and role conflict, would mediate the previously established relationships. Results indicated that the proactive coping style did not significantly relate to either of the workplace stressors, and therefore the hypotheses that proactive coping style acts as a potential way of eliminating workplace stressors and reducing subsequent on individual and organizational outcomes, was not supported. While the present study failed to find any support for the direct impact of proactive coping reducing negative stressors, the relation between role stressors and health and well-being

outcomes was negative. This negative relationship is consistent with previous research, which has supported the negative relationship between role stressors and health, satisfaction, and well-being outcomes (Bakker & Demerouti, 2007; Parasuraman et al., 1992).

Role ambiguity and role conflict encompass only a fraction of workplace stress literature, and may not be reflective of the mechanisms through which the proactive coping style impacts strains or leads to positive outcomes. For example, previous research has found support for the negative relationship between proactive coping and negative strains such as depression, anger, and burnout (Greenglass, 2005), though the variables explaining this relationship remain to be examined. Furthermore, social stressors (Dormann & Zapf, 2002) have been shown to negatively impact health, recovery processes and psychological detachment after work (Pereira & Elfering, 2014). The core aspect of social support in the proactive coping style (Aspinwall & Taylor, 1997) may have a buffering effect on these social stressors, and future research should consider this type of stressor. The challenge-hindrance framework (Cavanaugh et al., 2000), and the expanded challenge-hindrance-threat framework (Tuckey, Searle, Boyd, Winefield, & Winefield, 2015) are other theoretical frameworks that can be used to explore the stressor-strain relationship, with previous research indicating that challenge and hindrance stressors directly relate to increased exhaustion (LePine, LePine, & Jackson, 2004) and job satisfaction (Cavanaugh et al, 2000). Therefore, it may be beneficial for future research to continue to explore the how the proactive coping style might predict stressors beyond role stressors, and include negative strain based outcomes to further explore the impact of proactive coping style on the stressor-strain relationship.

In addition to workplace stressors, it was proposed that recovery behaviors would also act as a mediator, explaining the positive impact of proactive coping on the outcomes. The results did provide support for the relationship between proactive coping style and recovery, indicating that individuals who engage in the proactive coping style also tend to engage in recovery behaviors. Furthermore, the results provided support for a partial mediational relationship between proactive coping style and psychological and physical

health, job satisfaction and OCBs. These findings suggest that the recovery behaviors individuals engage in as a result of the proactive coping style are one potential mechanism through which individuals increase their health and satisfaction. This supports previous research on the positive effects of recovery, which have found that engagement in recovery activities outside of work leads to improved general well-being, positive affect, and job performance (Fritz & Sonnentag, 2005). Furthermore, the relationship between proactive coping style and recovery has theoretical and practical implications for expanding the theoretical knowledge of recovery as well as providing supplemental support for how individuals may engage in recovery behaviors to gain personal and organizational benefits. It is valuable to note that the findings of the present study support a partial mediation, suggesting that there are likely other explanatory variables impacting these positive relationships besides recovery.

Interestingly, while recovery was found to partially mediate the relationship between proactive coping style and OCBs, this relationship was negative, suggesting that individuals engaging in recovery are less likely to engage in OCBs. While this finding did not support the initial hypothesis, it is likely that the relationship between recovery and OCBs is more complex. While these findings are not consistent with previous research, which has found that recovery does predict OCBs at the between- and within-person level (Binnewies, Sonnentag, & Mojza, 2010), studies have noted that engaging in extra-role activities such as OCBs can be time consuming, leading to reduced time for in-role task completion, and potentially leading to an overall decrease in recovery time and an increase in stressors (Binnewies, Sonnentag, & Mojza, 2009). Therefore, individuals engaging in recovery behaviors are less likely to engage in extra-role activities that likely take away from personal recovery time and engagement, explaining the negative relationship exhibited in the present study. Inclusion of potential moderators of the recovery-OCB relationship, such as job control (Binnewies et al., 2009) may be beneficial to further understanding how these variables interact with the proactive coping style.

It is important to note that the results did not provide support that recovery mediates the relationship between proactive coping style and organizational commitment.

While proactive coping style did directly relate to organizational commitment, these findings suggest that recovery may not provide a satisfactory explanation of this relationship. Recovery behaviors occur outside of the workplace, and are generally performed for the benefit of the individual (Sonnentag & Fritz, 2007). Therefore, it is likely that recovery has a direct impact on personal outcomes such as health and satisfaction, however these effects may not extend to direct organizational outcomes such as organizational commitment.

One mechanism that future research may consider is the aspect of social support, particularly coworker and supervisor support, as a mediator of the proactive coping-commitment relationship. Although beyond the scope of the present study, supplemental analyses were run on the mediational relationship of social support. These results did reflect support for social support mediating the relationship between proactive coping style and organizational commitment, suggesting that social support is one variable that explains the relationship between proactive coping style and organizational commitment. An additional variable to consider in future research could be leader-member exchange (LMX). Previous research has found that LMX leads to affective organizational commitment (Eisenberger, Karagonlar, Stinglhamber, Neves, Becker, ... & Steiger-Mueller, 2010; Liden, Wayne & Sparrowe, 2000; Wayne, Coyle-Shapiro, Eisenberger, Liden, Rousseau & Shore, 2009). Employees actively seeking to engage and interact with their supervisors in high-quality, positive ways, have generally been found to be more committed to the organization. Individuals engaging in the proactive coping style are more likely to develop positive social networks and use these networks as resources (Aspinwall & Taylor, 1997). It is therefore likely that mechanisms such as LMX may be the explanatory variable in the proactive coping-commitment relationship.

A key aspect of the proactive coping framework is the impact of social support as a resource that individuals can pull from to help combat strains and increase positive outcomes (Aspinwall & Taylor, 1997). The results indicated that the proactive coping style does positively relate to social support, suggesting that individuals engaging in the proactive coping style are more likely to have strong social support networks, ranging from

relationships with their supervisors and coworkers, to their friends and family outside of the workplace. The present study further proposed that social support would act as a moderator, reducing the negative relationship between stressors and outcomes, and increasing the positive relationship between recovery and outcomes.

The moderation hypotheses regarding role ambiguity and role conflict was not supported with any of the individual and organizational outcomes. While some research has found some support for the buffering effect of social support in the stressor-strain relationship (Viswesvaran, Sanchez, & Fischer, 1999), it appears that there are often mixed results, with some research finding results regarding the lack of support for social support moderating the relationship between role stressors and outcomes (Beehr, Jex, Stacy, & Murray, 2000; Chiu, Yeh, & Huang, 2015; Ganster, Fusilier, & Mayes, 1986; Iwata & Suzuki, 1997). House (1981) noted that the buffering effect of social support on the stressor-strain relationship may only occur in individuals experiencing particularly high levels of stress. Upon further examination of the responses to levels of role stressors in this study, role ambiguity and role conflict levels were not exemplary of particularly high stressed individuals, with means of 3.07 and 4.00 respectively on a 7-point scale. These results may explain why many of the results regarding role stressors were not significant in this study.

The moderation hypothesis regarding recovery was not supported on health, job satisfaction or OCB outcomes, however there was a relationship with organizational commitment. This finding was interesting, as it suggested that individuals low in social support are likely to have higher organizational commitment when engaging in recovery behaviors, however individuals high in social support are likely to have decreased organizational commitment when engaging in recovery behaviors. As previously mentioned, there are largely mixed findings on the buffering effect of social support (Beehr et al., 2000; Chiu et al., 2015; Ganster et al., 1986), indicating that social support may not be acting as a moderator in these relationships, and rather should be explored as a potential mediator. Additional mediators and moderators such as leader-member exchange and psychological empowerment (Eisenberger et al., 2010; Liden et al., 2000) may be

important to investigate in these relationships, and in how these play a role in the outcomes from the proactive coping style.

Practical Implications

While the present study has theoretical implications in expanding the growing needs for research on proactive coping (Aspinwall & Taylor, 1997; Greenglass & Fiksenbaum, 2009), there are practical implications that can be drawn as well. As noted earlier, there is a current lack of research examining how healthy workplaces can be developed (Houdmont and Leka, 2010). These findings suggest that employees can engage in the proactive coping style to improve their personal and organizational well-being. Organizations with employees who are more likely to engage in the proactive coping style have increased job satisfaction, decreased turnover, and an increased commitment to providing extra-role behaviors. As such, there are two main implications for organizations.

First, as research grows on the topic of proactive coping, it may be valuable to consider providing training to employees on how to engage in the proactive coping style and implement the support of social networks to cultivate healthy and positive workplace environments. Proactive coping style directly related to the health of individuals, and in organizations where health care costs may be a concern, cultivating a workplace that can proactively reduce health issues in employees may be beneficial. Furthermore, providing employees with information on proactive coping style, as well as potential training to apply the coping style, can lead to an increase in job satisfaction, organizational commitment, and OCBs.

When developing a training program, it will be valuable for researchers to consider the proactive coping framework as proposed by Aspinwall and Taylor (1997). This framework outlines the process through which individuals anticipate, detect and prevent potential stressors to diminish their overall impact. There are five stages outlined in this framework: resource accumulation, recognition of potential stressors, initial appraisal, preliminary coping efforts, and elicitation of feedback concerning initial efforts. The

resource accumulation phase consists of building a reserve of temporal, financial and social resources well in advance of any stressor encounter. During the attention-recognition phase, individuals assess and screen their environment for potential signs of stressors occurring. The initial appraisal would answer the question of what the stressor is, and what it has the potential to become. Preliminary coping then follows, with the individual identifying specific actions they can complete or resources they can use in the current situation. Finally, the feedback stage assesses whether the preliminary coping efforts have had an effect, and what has been learned about the potential stressor. The development of a training program in the proactive coping style may consider activities around identifying, understanding and utilizing each of these stages.

Due to the goal-management nature of proactive coping (Aspinwall & Taylor, 1997; Greenglass & Fiksenbaum, 2009), it may be useful to develop a training program that guides employees into identifying future goals they aim to accomplish along with potential roadblocks or barriers that may impede them from accomplishing this goal. The training program should provide a framework for employees to reframe these barriers as opportunities for growth, rather than harmful risks to the individual, and provide employees with opportunities to identify and evaluate the resources they can develop and utilize in response to these potential barriers.

Second, organizations may want to consider the importance of providing employees with adequate recovery opportunities. Recovery behaviors was one mechanism through which employees utilize the proactive coping style and gain the potential benefits. Without adequate opportunities for recovery outside and away from work, employees may not have the opportunities to engage in the proactive coping style, and subsequently see a decrease in outcomes such as health and job satisfaction.

Limitations and Directions for Future Research

The current study has a few limitations that should be addressed. First, the study was cross-sectional, which did not allow for inferences of causal relationships. As such, it

is not certain whether the proactive coping style leads to positive outcomes such as well-being and job satisfaction, or if these variables instead provide employees with additional opportunities to engage in the proactive coping style. These are questions that can be addressed through future research, particularly through the use of longitudinal designs, to determine the direction of these relationships.

Second, the study used a single-source, self-report design, indicating that there may be issues with common-method variance. However, the subjective nature of many of these variables, such as job satisfaction, can best be measured through self-report (Seashore, 1974). Future research should consider including additional sources of feedback, such as supervisory ratings on organizational outcomes, as well as objective measures on outcomes such as job performance.

Third, the nonsignificant findings between the proactive coping style and workplace stressors may be attributed to the type of stressor that was used in this study. Role ambiguity and role conflict are stressors that occur in the environment of the workplace, often outside of the control of the individual. Future research should seek to replicate the findings on proactive coping and workplace stressors by considering a broader range of interpersonal social stressors, such as aggression or incivility, which an employee is more likely to have control over. Furthermore, while this study did draw from a broad, representative sample of occupations, future research may consider the impact of proactive coping style on workplace stressor in specific, high stress workplace settings, such as emergency medical technicians or military based occupations.

While this study did provide further evidence for the benefits of the proactive coping style, future research may want to consider exploring the nature of proactive coping, and whether it is a stable trait or can be trained in individuals. This would have direct implications for organizations seeking to either hire individuals who are more likely to engage in the proactive coping style, or if future training programs and interventions can be developed to cultivate the proactive coping style in employees.

Conclusion

The proactive coping style has recently emerged as a strategy for employees to manage stressors temporally prior to their occurrence, thereby improving personal and organizational wellbeing outcomes. The current study contributes to this literature by exploring the impact of proactive coping style on psychological and physical health, job satisfaction, organizational commitment, OCBs and social support. The findings suggest that proactive coping directly relates to each of these outcomes. Furthermore, these findings suggest that recovery plays an important role in explaining why these relationships occur. These results contribute to the growing literature on the proactive coping style, as well as broader health and positive psychology literature. Organizations should consider the value of the proactive coping style, and research should further continue to examine if this coping style can be trained, allowing organizations and individuals to potentially develop healthier workplaces.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.
- Aspinwall, L. G. (2005). The psychology of future-oriented thinking: From achievement to proactive coping, adaptation, and aging. *Motivation and Emotion*, 29(4), 203-235. doi:10.1007/s11031-006-9013-1
- Aspinwall, L. G. (2010). Future-oriented thinking, proactive coping, and the management of potential threats to health and well-being. *Oxford Handbook of Stress, Health, and Coping*, 1-35. doi:10.1093/oxfordhb9780195375343.013.0017
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin*, 121(3), 417-436.
- Atkinson, W. (2004). Stress: Risk management's most serious challenge? *Risk Management*, 51(6), 20-24.
- Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328. doi:10.1108/02683940710733115
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Baruch-Feldman, C., Brondolo, E., Ben-Dayana, D., & Schwartz, J. (2002). Sources of social support and burnout, job satisfaction, and productivity. *Journal of Occupational Health Psychology*, 7(1), 84-93.
- Beehr, T. A., Farmer, S. J., Glazer, S., Gudanowski, D. M., & Nair, V. N. (2003). The enigma of social support and occupational stress: Source congruence and gender role effects. *Journal of Occupational Health Psychology*, 8(3), 220-231. doi:10.1037/1076-8998.8.3.220

- Beehr, T.A., Jex, S.M., Stacy, B.A. & Murray, M.A. (2000). Work stressors and coworker support as predictors of individual strain and job performance. *Journal of Organizational Behavior*, 21(4), 391-405.
- Beehr, T. A., Ragsdale, J. M., & Kochert, J. F. (2014). Effects of initial resources on the development of strains during a stressful training situation: Some counterintuitive results. *Journal of Organizational Behavior*, 36(4), 1099-1379. doi:10.1002/job.1974
- Bhagat, R. S., Krishnan, B., Nelson, T. A., Leonard, K. M., Ford, D. L. Jr., Billing, T. K. (2010). Organizational stress, psychological strain, and work outcomes in six national contexts: A closer look at the moderating influences of coping styles and decision latitude. *Cross Cultural Management: An International Journal*, 17(1), 10-29. doi:10.1108/13527601011016880
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (2009). Daily performance at work: Feeling recovered in the morning as a predictor of day-level job performance. *Journal of Organizational Behavior*, 30(1), 67-93.
- Binnewies, C., Sonnentag, S., & Mojza, E. J. (2010). Recovery during the weekend and fluctuations in weekly job performance: A week-level study examining intra-individual relationships. *Journal of Occupational and Organizational Psychology*, 83(2), 419-441.
- Blascovich, J., & Tomaka, J. (1996). The biopsychosocial model of arousal regulation. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 28, pp. 1-51). New York: Academic Press.
- Bledsoe, S. E., Brown, C., Grote, N. K., Larkin, J., & Lemay, E. P. (2007). Stress exposure and depression in disadvantaged women: The protective effects of optimism and perceived control. *Social Work Research*, 31(1), 19-33.
- Borman, W. C. & Motowidlo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In Schmitt N., Borman W. C. (Eds.), *Personality Selection* (pp. 71-98). San Francisco: Jossey-Bass.
- Bowling, N. A., Beehr, T. A., Johnson, A. L., Semmer, N. K., Hendricks, E. A., & Webster, H. A. (2004). Explaining potential antecedents of workplace social support: Reciprocity or attractiveness? *Journal of Occupational Health Psychology*, 9(4), 339-350. doi:10.1037/1076-8998.9.4.339
- Buttigieg, S. C., & West, M. A., (2013). Senior management leadership, social support, job design and stressor-to-strain relationships in hospital practice. *Journal of Health Organization and Management*, 27(2), 171-192. doi:10.1108/14777261311321761

- Campbell, D. J. (1988). Task complexity: A review and analysis. *Academy of Management Review*, *13*(1), 40-52.
- Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among U.S. managers. *Journal of Applied Psychology*, *85*, 65–74. doi:10.1037/0021-9C10.85.1.65
- Cheng, B. H., & McCarthy, J. M. (2013). Managing work, family, and school roles: Disengagement strategies can help and hinder. *Journal of Occupational Health Psychology*, *18*(3), 241-251. doi:10.1037/a0032507
- Chiu, S., Yeh, S., & Huang, T. C. (2015). Role stressors and employee deviance: The moderating effect of social support. *Personnel Review*, *44*(2), 308-324.
- Chung-Yan, G., & Butler, A. M. (2011). Proactive personality in the context of job complexity. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, *43*(4), 279-286. doi:10.1037/a0024501
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310-357.
- Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Behavior*, *95*(5), 834-848. doi:10.1037/a0019364
- de Boer, A. J., van Hooft, E. A. J., & Bakker, A. B. (2015). Self-control at work: Its relationship with contextual performance. *Journal of Management Psychology*, *30*(4), 406-421. doi:10.1108/JMP-08-2012-0237
- de Croon, E. M., Sluiter, J. K., Blonk, R. W. B., Broersen, J. P. J., & Frings-Dresen, M. (2004). Stressful work, psychological job strain, and turnover: A 2-year prospective cohort study of truck drivers. *Journal of Applied Psychology*, *89*(3), 442-454. doi:10.1037/0021-9010.89.3.442
- Deci, E. L., Connell, J. P., & Ryan, R. M. (1989). Self-determination in a work organization. *Journal of Applied Psychology*, *74*(4), 580-590.
- DeGraff, A. H., & Schaffer, J. (2008). Emotion-focused coping: A primary defense against stress for people living with spinal cord injury. *Journal of Rehabilitation*, *74*, 19-24.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499-512. doi:10.1037/a0016253

- Dormann, C., & Zapf, D. (2004). Customer-related social stressors and burnout. *Journal of Occupational Health Psychology, 9*, 61–82. doi:10.1037/1076-8998.9.1.61
- Eatough, E. M., Chang, C., Miloslavic, S. A., & Johnson, R. E. (2011). Relationships of role stressors with organizational citizenship behavior: A meta-analysis. *Journal of Applied Psychology, 96*(3), 619-632. doi:10.1037/a0021887
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*, 500-507.
- Eisenberger, R., Karagonlar, G., Stinglhamber, F., Neves, P., Becker, T. E., Gonzalez-Morales, M., & Steiger-Mueller, M. (2010). Leader–member exchange and affective organizational commitment: The contribution of supervisor's organizational embodiment. *Journal of Applied Psychology, 95*(6), 1085-1103.
- Endler, N. S., & Parker, J. D. A. (1990). *Coping Inventory for Stressful Situations (CISS): Manual*. Toronto, Canada: Multi-Health System.
- Endler, N. S., & Parker, J. D. A. (1994). Assessment of multidimensional coping: Task, emotion, and avoidance strategies. *Psychological Assessment, 6*(1), 50-60. doi:10.1037/1040-3590.6.1.50
- Erez, A., & Isen, A. M. (2002). The influence of positive affect on the components of expectancy motivation. *Journal of Applied Psychology, 87*, 1055–1067.
- Etzion, D., Eden, D., & Lapidot, Y. (1998). Relief from job stressors and burnout: Reserve service as a respite. *Journal of Applied Psychology, 83*, 577–585.
- Fodor, D. P., Antoni, C. H., Wiedemann, A. U., & Burkert, S. (2014). Healthy eating at different risk levels for job stress: Testing a moderated mediation. *Journal of Occupational Health Psychology, 19*(2), 259-267. doi:10.1037/a0036267
- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology, 48*(1), 150-170. doi:10.1037/0022-3514.48.1.150
- Folkman, S., & Lazarus, R. S. (1989). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21*(3), 219-239. doi:10.2307/2136617
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*, 745-774. doi:10.1146/annurev.psych.55.090902.141456

- Fritz, C., & Sonnentag, S. (2006). Recovery, well-being, and performance-related outcomes: The role of workload and vacation experiences. *Journal of Applied Psychology, 91*, 936–945.
- Ganster, D.C., Fusilier, M.R. & Mayes, B.T. (1986). Role of social support in the experience of stress at work. *Journal of Applied Psychology, 71*(1), 102-110.
- Geurts, S. A. E., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian Journal of Work and Environmental Health, 32*, 482–492.
- Grawitch, M. J., Barber, L. K., & Justice, L. (2010). Rethinking the work-life interface: It's not about balance, it's about resources allocation. *Applied Psychology: Health and Well-Being, 2*(2), 127-159. doi:10.1111/j.1758-0854.2009.01023.x
- Greenglass, E. R. (2005). Proactive coping, resources and burnout: implications for occupational stress. *Research companion to organizational health psychology, 503-515*.
- Greenglass, E. R., & Fiksenbaum, L. (2009). Proactive coping, positive affect, and well-being. *European Psychologist, 14*(1). doi:10.1027/1016-9040.14.1.29
- Greenglass, E.R., Marques, S., deRidder, M., & Behl, S. (2005). Positive coping and mastery in a rehabilitation setting. *International Journal of Rehabilitation Research, 28*, 331–339.
- Greenglass, E., R., Schwarzer, R., Jakubiec, S. D., Fiksenbaum, L., & Taubert, S. (1999). The Proactive Coping Inventory (PCI): A multidimensional research instrument. Paper presented at the 20th International Conference of the STAR (Stress and Anxiety Research Society), Cracow, Poland, July 12-14.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524. doi:10.1037/0003-066X.44.3.513
- Houdmont, J., & Leka, S. (2010). An introduction to occupational health psychology. In S. Leka & J. Houdmont (Eds.), *Occupational health psychology* (pp. 1-30). Hoboken, NJ: John Wiley.
- House, J.S. (1981). *Work Stress and Social Support*. Reading, MA: Addison-Wesley.
- Howerton, A., & Van Gundy, K. (2009). Sex differences in coping styles and implications for depressed mood. *International Journal of Stress Management, 16*(4), 333-350. doi:10.1037/a0016843

- Hunter, E. M., & Wu, C. (2015). Give me a better break: Choosing workday break activities to maximize resource recovery. *Journal of Applied Psychology*, doi:10.1037/apl0000045
- Ingledeu, D. K., Hardy, L., & Cooper, C. L. (1997). Do resources bolster coping and does coping buffer stress? An organizational study with longitudinal aspect and control for negative affectivity. *Journal of Occupational Health Psychology*, 2(2), 118-133. doi:10.1037/1076-8998.2.2.118
- Iwata, N. & Suzuki, K. (1997). Role stress-mental health relations in Japanese bank workers: a moderating effect of social support. *Applied Psychology: An International Review*, (46)2, 207-218.
- Jex, S. M., Bliese, P. D., Buzzell, S., & Primeau, J. (2001). The impact of self-efficacy on stressor-strain relations: Coping style as an explanatory mechanism. *Journal of Applied Psychology*, 86(3), 401-409. doi:10.1037/0021-9010.86.3.401
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Karasek, R.A. (1979). Job demands, job decision latitude, and mental strain: Implications for job design. *Administrative Science Quarterly*, 24, 285-308.
- Körner, A., Silbereisen, R. K., & Cantner, U. (2014). Work-related demands emanating from social change and their relation to trait-like and occasion-specific aspects of subjective well-being. *Social Indicators Research*, 115(1), 203-222. doi:10.1007/s11205-012-0215-5
- Lapierre, L. M., & Allen, T. D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: Implications for work-family conflict and employee well-being. *Journal of Occupational Health Psychology*, 11(2), 169-181. doi:10.1037/1076-8998.11.2.169
- Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York: McGraw-Hill.
- Lazarus, R. S. (1991). Psychological stress in the workplace. *Journal of Social Behavior and Personality*, 6(7), 1-13.
- Lazarus, R. S. (1990). Theory-based stress measurement. *Psychological Inquiry*, 1(1), 3-13.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, *1*(3), 141-169.
- LePine, J. A., LePine, M. A., & Jackson, C. L. (2004). Challenge and hindrance stress: Relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology*, *89*(5), 883-891. doi:10.1037/0021-9010.89.5.883
- Liden, R. C., Wayne, S., & Sparrowe, R. T., (2000). An examination of the mediating role of psychological empowerment on the relationships between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology*, *85*(3), 407-416.
- McDonald-Miszczak, L., & Wister, A. V. (2005). Predicting self-care behaviors among older adults coping with arthritis: A cross-sectional and 1-year longitudinal comparative analysis. *Journal of Aging and Health*, *17*(6), 836-857. doi:10.1177/0898264305280984
- Meijman, T. F., & Mulder, G. (1998). Psychological aspects of workload. In P. J. D. Drenth & H. Thierry (Eds.), *Handbook of work and organizational psychology* (Vol. 2: Work psychology, pp. 5–33). Hove, England: Psychology Press.
- Meijman, T. F., & Schaufeli, W. (1996). Psychische vermoeidheid en arbeid: Ontwikkelingen in de A&O Psychologie [Fatigue at work: Developments in the I&O Psychology]. *De Psycholoog*, *3*, 236–241.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538.
- Michael, O., Court, D., & Petal, P. (2009). Job stress and organizational commitment among mentoring coordinators. *International Journal of Educational Management*, *23*(3), 266-288. doi:10.1108/09513540910941766
- Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology*, *71*(4), 618-629. doi:10.1037/0021-9010.71.4.618
- Munro, L., Rodwell, J., & Harding, L., (1998). Assessing occupational stress in psychiatric nurses using the full job strain model: The value of social support to nurses. *International Journal of Nursing Studies*, *35*(6), 339-345.

- Murphy, C. A., & Gable, R. K. (1988). Validity and reliability of the original and abridged role conflict and ambiguity scales. *Educational and Psychological Measurement*, 48(3), 743-751. doi:10.1177/0013164488483023
- Nixon, A. E., Mazzola, J. J., Bauer, J. Krueger, J. R., & Spector, P. E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work & Stress*, 25(1), 1-22. doi:10.1080/02678373.2011.569175
- Nonis, S. A., Hudson, G. I., Logan, L. B., & Ford, C. W. (1998). Influence of perceived control over time on college students' stress and stress-related outcomes. *Research in Higher Education*, 39(5), 587-605. doi:10.1023/A:1018753706925
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4), 775-802.
- Örtqvist, D., & Wincent, J. (2006). Prominent consequences of role stress: A meta-analytic review. *International Journal of Stress Management*, 13(4), 399-422. doi:10.1037/1072-5245.13.4.399
- Parasuraman, S., Greenhaus, J. H., & Granrose, C. S. (1992). Role stressors, social support, and well-being among two-career couples. *Journal of Organizational Behavior*, 13(4), 339-356.
- Parkes, K. R., Mendham, C. A., & von Rabenau, C. (1994). Social support and the demand-discretion model of job stress: Tests of additive and interactive effects in two samples. *Journal of Vocational Behavior*, 44(1), 91-113. doi:10.1006/jvbe.1994.1006
- Pereira, D., & Elfering, A. (2014). Social stressors at work and sleep during weekends: The mediating role of psychological detachment. *Journal of Occupational Health Psychology*, 19(1), 85-95. doi:10.1037/a0034928
- Peters, L. H., & O'Connor, E. J. (1980). Situational constraints and employee affective reactions: The influences of a frequently overlooked construct. *Academy of Management Review*, 5, 391-397.
- Perrewé, P. L., & Zellars, K. L. (1999). An examination of attributions and emotions in the transactional approach to the organizational stress process. *Journal of Organizational Behavior*, 20(5), 739-752.

- Podsakoff, N. P., LePine, J. A., & LePine, M. A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: A meta-analysis. *Journal of Applied Psychology, 92*(2), 438-454. doi:10.1037/0021-9010.92.2.438
- Ragsdale, J. M., Beehr, T. A., Grebner, S., & Han, K. (2011). An integrated model of weekday stress and weekend recovery of students. *International Journal of Stress Management, 18*(2), 153-180. doi: 10.1037/a0023190
- Rantanen, M., Mauno, S., Kinnunen, U., & Rantanen, J. (2011). Do individual coping strategies help or harm in the work-family conflict situation? Examining coping as a moderator between work-family conflict and well-being. *International Journal of Stress Management, 18*(1), 24-48. doi:10.1037/a0022007
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly, 15*, 150–163.
- Rook, J. W., & Zijlstra, F. R. H. (2006). The contribution of various types of activities to recovery. *European Journal of Work and Organizational Psychology, 15*, 218-240.
- Rubino, C., Luksyte, A., Perry, S. J., & Volpone, S. D. (2009). How do stressors lead to burnout? The mediating role of motivation. *Journal of Occupational Health Psychology, 14*(3), 289-304. doi:10.1037/a0015284
- Ruthig, J. C., Chipperfield, J. G., Newall, N. E., Perry, R. P., & Hall, N. C. (2007). Detrimental effects of falling on health and well-being in later life: The mediating roles of perceived control and optimism. *Journal of Health Psychology, 12*(2), 231-248. doi:10.1177/1359105307074250
- Schnall, P.L., Landsbergis, P.A. and Baker, D. (1994). Job strain and cardiovascular disease. *Annual Review of Public Health, 15*, 381-411.
- Schwarzer, R., & Luszczynska, A. (2008). Reactive, anticipatory, preventive, and proactive coping: a theoretical distinction. *The Prevention Researcher, 15*(4), 22-24.
- Searle, B. J., & Lee, L. (2015). Proactive coping as a personal resource in the expanded job demands–resources model. *International Journal of Stress Management, 22*(1), 46-69. doi:10.1037/a0038439
- Seashore, S. E. (1974). Job satisfaction as an indicator of the quality of employment. *Social Indicators Research, 1*(2), 135-168.
- Sonnentag, S. (2001). Work, recovery activities, and individual well-being: A diary study. *Journal of Occupational Health Psychology, 6*(3), 196-210. doi:10.1037/1076-8998.6.3.196

- Sonnentag, S., & Fritz, C. (2007). The recovery experience questionnaire: Development and validation of a measure for assessing recuperation and unwinding from work. *Journal of Occupational Health Psychology, 12*(3), 204-221. doi:10.1037/1076-8998.12.3.204
- Sonnentag, S., & Natter, E. (2004). Flight attendants' daily recovery from work: Is there no place like home? *International Journal of Stress Management, 11*, 366–391
- Spector, P. E. 1997. *Job Satisfaction: Application, Assessment, Causes, and Consequences*. Thousand Oaks, CA: Sage.
- Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know? *Journal of Applied Psychology, 95*(4), 781-790. doi:10.1037/a0019477
- Spector, P. E. & Fox, S. (2005), "The stressor-emotion model of counterproductive work behavior", in Fox, S. and Spector, P. E. (Eds), *Counterproductive Work Behavior: Investigations of Actors and Targets*, APA, Washington, DC, pp. 151-76.
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology, 3*(4), 356-367. doi:10.1037/1076-8998.3.4.356
- Suls, J., & Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: A meta-analysis. *Health Psychology, 4*(3), 249-288.
- Stiglbauer, B., & Batinic, B. (2015). Proactive coping with job insecurity: Is it always beneficial to well-being? *Work Stress, 29*(3), 264-285. doi:10.1080/02678373.2015.1074956
- ten Brummelhuis, L. L., & Bakker, A. B. (2012). Staying engaged during the week: The effect of off-job activities on next day work engagement. *Journal of Occupational Health Psychology, 17*(4), 445-455. doi:10.1037/a0029213
- Terry, D. J., Nielsen, M., & Perchard, L. (1993). Effects of work stress on psychological well-being and job satisfaction: The stress-buffering role of social support. *Australian Journal of Psychology, 45*(3), 168–175. doi:10.1080/00049539308259135

- Tuckey, M. R., Searle, B. J., Boyd, C. M., Winefield, A. H., & Winefield, H. R. (2015). Hindrances are not threats: Advancing the multidimensionality of work stress. *Journal of Occupational Health Psychology, 20*(2), 131-147.
doi:10.1037/a0038280
- Uskul, A.K., & Greenglass, E.R. (2005). Psychological well-being in a Turkish-Canadian sample. *Anxiety, Stress, and Coping: An International Journal, 18*, 269–278.
- van der Klink, J. J. L., Blonk, R. W. B., Schene, A. H., & van Dijk, F. J. H. (2001). The benefits of interventions for work-related stress. *American Journal of Public Health, 91*, 270–276.
- Viswesvaran, C., Sanchez, J.I. & Fisher, J. (1999). The role of social support in the process of work stress: a meta-analysis. *Journal of Vocational Behavior, 54*(2), 314-334.
- Wayne, S. J., Coyle-Shapiro, J. A. M., Eisenberger, R., Liden, R. C., Rousseau, D. M., & Shore, L. M. (2009). Social influences. In H. J. Klein, T. E. Becker, & J. P. Meyer (Eds.), *Commitment in organizations: Accumulated wisdom and new directions* (pp. 253–284). New York, NY: Taylor & Francis.
- Yousef, D. A. (2002). Job satisfaction as a mediator of the relationship between role stressors and organizational commitment: A study from an Arabic cultural perspective. *Journal of Managerial Psychology, 17*(4), 250-266.
doi:10.1108/02683940210428074
- Zimet, G. D., Dahlem, N., Zimet, S., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *The Journal of Personality Assessment, 52*(1), 30-41.

Appendix

Proactive Coping Items

- 1 = “not at all true”
 2 = “barely true”
 3 = “somewhat true”
 4 = “completely true”

I am a "take charge" person.
 I try to let things work out on their own.
 After attaining a goal, I look for another, more challenging one.
 I like challenges and beating the odds.
 I visualize my dreams and try to achieve them.
 Despite numerous setbacks, I usually succeed in getting what I want.
 I try to pinpoint what I need to succeed.
 I always try to find a way to work around obstacles; nothing really stops me.
 I often see myself failing so I don't get my hopes up too high.
 When I apply for a position, I imagine myself filling it.
 I turn obstacles into positive experiences.
 If someone tells me I can't do something, you can be sure I will do it.
 When I experience a problem, I take the initiative in resolving it.
 When I have a problem, I usually see myself in a no-win situation.

Psychological Health Items

- 1 = “none of the time”
 2 = “some of the time”
 3 = “most of the time”
 4 = “all of the time”

In the past month, how often have you felt...
 Depressed

In control
 That you had nothing to look forward to
 Emotionally stable
 Satisfied with life
 That you had enough energy
 That life had been interesting

Physical Health Items

1 = “almost never true”
 2 = “usually not true”
 3 = “occasionally true”
 4 = “usually true”
 5 = “almost always true”

In the past month, have you...

Felt physically unwell
 Had some physical symptoms, like stomach upset, headaches or dizziness
 Wished you had felt physically better

Job Satisfaction Items

All in all, how satisfied would you say you are with your present job?
 7-point range from not at all satisfied to very satisfied
 How much have you enjoyed your work over the past 6 weeks?
 7-point range from not at all to very much
 How often do you feel fed up with your present job?
 7-point range from very rarely to very frequently

Organizational Commitment Items

1 = “Strongly disagree”
 2 = “Disagree”
 3 = “Somewhat disagree”
 4 = “Neither agree nor disagree”
 5 = “Somewhat agree”
 6 = “Agree”
 7 = “Strongly agree”

I would be very happy to spend the rest of my career with this organization.
 I really feel as if this organization's problems are my own.

I do not feel a strong sense of "belonging" to my organization.
 I do not feel "emotionally attached" to this organization.
 I do not feel like "part of the family" at my organization.
 This organization has a great deal of meaning for me.

OCB Items

- 1 = "Never"
 2 = "Once or twice"
 3 = "Once or twice a month"
 4 = "Once or twice a week"
 5 = "Every day"

Took time to advise, coach, or mentor a co-worker.
 Helped co-worker learn new skills or shared job knowledge.
 Helped new employees get oriented to the job.
 Lent a compassionate ear when someone had a work problem.
 Offered suggestions to improve how work is done.
 Helped a co-worker who had too much to do.
 Volunteered for extra work assignments.
 Worked weekends or other days off to complete a project or task.
 Volunteered to attend meetings or work on committees on own time.
 Gave up meal and other breaks to complete work.

Role Stressors Items

- 1 = "Definitely not true"
 2 = "Not true"
 3 = "Somewhat not true"
 4 = "Neither true nor untrue"
 5 = "Somewhat true"
 6 = "True"
 7 = "Extremely true"

I know exactly what is expected of me.
 I know what my responsibilities are.
 I feel certain about how much authority I have.
 There are clear, planned goals and objectives for my job.
 Explanation of what has to be done is clear.
 I know that I have divided my time properly.
 I have to do things that should be done differently.

I work on unnecessary things.
 I have received an assignment without adequate resources and materials to execute it.
 I have received an assignment without the manpower to complete it.
 I do things that are apt to be accepted by one person and not accepted by others.
 I work with two or more groups that operate quite differently.
 I receive incompatible requests from two or more persons.
 I have to oppose a rule or policy in order to carry out an assignment.

Recovery Items

- 1 = "Strongly disagree"
 2 = "Disagree"
 3 = "Neither agree nor disagree"
 4 = "Agree"
 5 = "Strongly agree"

I forget about work.
 I don't think about work at all.
 I distance myself from my work.
 I get a break from the demands of work.
 I kick back and relax.
 I do relaxing things.
 I use the time to relax.
 I take time for leisure.
 I learn new things.
 I seek out intellectual challenges.
 I do things that challenge me.
 I do something to broaden my horizons.
 I feel like I can decide for myself what to do.
 I decide my own schedule.
 I determine for myself how I will spend my time.
 I take care of things the way that I want them done.

Social Support Items

- 1 = "Strongly disagree"
- 2 = "Disagree"
- 3 = "Somewhat disagree"
- 4 = "Neither agree nor disagree"
- 5 = "Somewhat agree"
- 6 = "Agree"
- 7 = "Strongly agree"

My supervisor values my contribution to the organization's well-being.
 My supervisor strongly considered my goals and values.
 My supervisor really cares about my well-being.
 My supervisor is willing to help me when I need a special favor.
 If given the opportunity, my supervisor would take advantage of me.
 My supervisor takes pride in my accomplishments at work.
 There is a special person who is around when I am in need.
 There is a special person with whom I can share my joys and sorrows.
 My family really tries to help me.
 I get the emotional help and support I need from my family.
 I have a special person who is a real source of comfort to me.
 My friends really try to help me.
 I can count on my friends when things go wrong.
 I can talk about my problems with my family.
 I have friends with whom I can share my joys and sorrows.
 There is a special person in my life who cares about my feelings.
 My family is willing to help me make decisions.
 I can talk about my problems with my friends.

Demographic Items

How old are you? (specify)

What is your ethnicity?

White/Caucasian

African American

Hispanic

Asian

Native American

Pacific Islander

Other

What is the highest level of education you have completed?

Less than high school

High school/GED

Some college

2-year college degree

4-year college degree

Masters degree

Doctoral degree

Professional degree (JD, MD)

Are you currently employed? (yes/no)

On average, how many hours a week do you work? (specify)

In which industry are you employed?

Forestry, fishing, hunting, or agriculture support

Mining

Utilities

Construction

Manufacturing

Wholesale trade

Retail trade

Transportation or warehousing

Information

Finance or insurance

Real estate or rental and leasing

Professional, scientific or technical services

Management of companies or enterprises

Admin, support, waste management or remediation services

Educational services

Health care or social assistance

Arts, entertainment or recreation

Accommodation or food services

Other (specify)

How long have you been in your current position? (specify)