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Understanding the relationships between interpersonal conflict at work, perceived control, coping, and employee well-being

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Understanding the Relationships between Interpersonal Conflict at Work, Perceived Control, Coping, and Employee Well-being

by

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Dedication

This thesis is dedicated to my parents, Steve and Kay Eatough. Thank you for all your unconditional love, guidance, encouragement, and support.

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Understanding the Relationships between Interpersonal Conflict at Work, Perceived Control, Coping, and Employee Well-being

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Abstract

Stressors resulting from one's work life including work conditions, job characteristics, and relationships with others at work have been shown to impact employee health outcomes at both psychological and physical levels (Le Blanc, Jonge, & Schaufeli, 2008; Spector, Dwyer, & Jex, 1988). Interpersonal conflict is one prevalent workplace stressor that has been associated with poor work-related outcomes and psychological states. A cross-sectional design with multi-source data collection methods was used to measure conflict, perceptions of control, coping strategies, and both psychological and physical well-being. Overall, findings suggested that the success of coping efforts hinges on the combination of the nature of the stressor (conflict with supervisors vs. with a co-worker), perceptions of control over that stressor (high or low control), and coping strategy used (problem-focused or emotion-focused coping). This may explain at least to a certain extent why previous efforts to document the moderating effects of coping have been inconsistent, especially pertaining to emotion-focused coping

Chapter One

Introduction

Understanding the impact of work-related stressors and employee health and well-being has been a burgeoning field over the last two decades (Jex, 1998; Lazarus, 1991; Spector & Jex, 1998; Shimazu, & Kosugi, 2003). Stressors resulting from one's work life including work conditions, job characteristics, and relationships with others at work have been shown to impact employee health outcomes at both psychological and physical levels (Le Blanc, Jonge, & Schaufeli, 2008; Spector, Dwyer, & Jex, 1988). Gaining knowledge on how work-related stressors may contribute to employee well-being may help organizations mitigate the negative impact of stressors and may facilitate the design of interventions aimed at training employees to best cope with workplace stressors.

Stress is commonly defined "as particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984, p. 19). Lazarus and Folkman posit that stress lies in the relationship between the demands of the environment and the person's capabilities to meet, mitigate, and alter these demands in order to protect adequate levels of well-being. Stress is a process in which there is an interaction between the environment, or one's appraisal of the environment, and the individual. In other words, stress is produced via a sphere of processes that include appraisal of the environment in relevance to well-being and to one's resources to meet the demands of the

environment. Stressors, or environmental factors bringing forth a response from the individual, may produce strain, which is defined as maladaptive responses to stressors (Jex, 2002). Strain, therefore, is a result of the stress process. According to Karasek's (1979) job demand–control model, which will be discussed in more detail later, strain occurs when high job demands combine with low control resulting in poor employee health.

The stressor explored in the current study is interpersonal conflict at work. Conflict at work is an important and pervasive workplace stressor. Interpersonal conflict represents the extent to which an employee has negatively charged social interactions with his or her co-workers (Spector, 1987). Interpersonal conflict at work has been related to various behavioral, psychological, attitudinal, and physical health outcomes. On a behavioral level, interpersonal conflict has been associated with increases in counterproductive work behavior (Bayram, Gursakal, & Bilgel, 2009; Penney & Spector, 2005), absenteeism (Giebels & Janssen), and reduced job performance (Aquino & Bommer, 2003). For example, interpersonal conflict has been shown to have positive relationships with counterproductive work behaviors and in some cases, was found to be one of the strongest predictors of CWB out of a variety of other workplace stressors (Bayram, Gursakal, & Bilgel, 2009). The strain associated with interpersonal conflict at work has also been shown to be related to increased absenteeism (Giebels & Janssen, 2005). Additionally, mistreatment between supervisors and their subordinates has been shown to negatively impact overall performance as well as extra-role performance (Aquino & Bommer, 2003). Thus, conflicts at work have important ties to employee behaviors relevant to organizations.

Interpersonal conflict has also been associated with poor work-related attitudes and psychological states such as job dissatisfaction, organizational commitment, turnover intensions, negative emotions, and emotional exhaustion (Frone, 2000; Giebels & Janssen, 2005; Liu, Spector, & Shi, 2007; Spector & Jex, 1998). For example, Penney and Spector (2005) demonstrated interpersonal conflict to have a negative relationship with job satisfaction and this relationship was stronger for individuals with high negative affectivity. In another study with university employees, interpersonal conflict at work was positively related to negative emotions at work such as feeling furious, angry, frightened, anxious, and disgusted as well as to job dissatisfaction and turnover intentions (Liu, Spector, & Shi, 2008). Similarly, in a sample of social services workers, interpersonal conflict at work was related to increased emotional exhaustion and turnover intensions. Third party support in conflict management mitigated the strength of these relationships (Giebels & Janssen, 2005). Using a structural equation model, Frone (2000) demonstrated that interpersonal conflict at work is predictive of lower job satisfaction and organizational commitment, higher turnover intentions, and more depressive symptoms. In a meta-analysis by Spector and Jex (1998), interpersonal conflict at work was found to be negatively related to job satisfaction (r = -.32) and positively related to turnover intentions (r = .41). Thus, it seems that interpersonal conflict at work has important relationships to psychological and attitudinal outcomes.

Moreover, physical health has been related to interpersonal conflict at work. Meta-analytic results from Spector and Jex (1998) demonstrated interpersonal conflict at work to be positively related to somatic symptoms (r = .26). Corroborating evidence was reported in a study using a sample of 312 young workers where interpersonal conflict at

work was positively associated with somatic complaints such as dizziness and headaches (Frone, 2000). In a recent study, interpersonal conflict at work was positively related to illness symptoms (e.g. upset stomach, headache, fever) using a sample of 764 telecommunications workers (Lazuras, Rodafinos, Matsiggos, Stamatoulakis, 2009). In sum, it appears that interpersonal conflict at work has meaningful relationships to behavioral, psychological, and somatic health outcomes.

Furthermore, interpersonal conflict is a frequently encountered stressor at work. Keenan and Newton (1985) have proposed that interpersonal conflict may be the most important workplace stressor affecting organizations today. This notion is reflected in several taxonomies of job stressors which include turbulent interpersonal relationships at work (Kasl, 1998; Williams & Cooper, 1998). Grebner, Elfering, Semmer, Kaiser-Probst, and Schlapbach (2004) found that social stressors, such as conflicts at work, comprised the most frequently reported category of workplace stressors in a diary event sampling study. Additionally, some work suggests direct interpersonal conflict at work may be a stressor more common in the United States than in other countries (Liu, Spector, & Shi, 2007). Thus, interpersonal conflict at work is a prevalent occupational stressor and has important relationships to a variety of organizational and employee outcomes.

One potential moderator of the stressor-strain relationship is coping. Coping can be defined as cognitive and behavioral efforts made to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus & Folkman, 1984). The Cognitive Theory of Stress and Coping (Lazarus & Folkman, 1984) incorporates coping into the transactional process between one's environment and reactions to that environment. Coping has generally been recognized as

an important determinant of physical and psychological health outcomes (Penley, Tomaka, & Wiebe, 2002), but has been conceptualized in a variety of different ways (Carver, Scheier, & Weintraub, 1989; Lazarus & Folkman, 1984; Roth & Cohen, 1986; Skinner, Edge, Altman, & Sherwood, 2003). The effects of various coping styles on well-being have appeared to be contingent on the specific coping measures used (Penley et al., 2002), how well-being was conceptualized and measured (Penley et al., 2002), the nature of the stressors (Havlovic & Keenan, 1995; Penley et al., 2002; Terry, Callan, & Sartori, 1996), the other resources available (e.g., social support; Penley et al., 2002), and individual characteristics (Jex, Bliese, Buzzell, & Primeau, 2001; Keoske, Kirk, & Keoske, 1993). A large body of previous work has distinguished problem-focused coping from emotion-focused coping (Endler & Parker, 1999; Folkman, Lazarus, Gruen, & DeLongis, 1986; Folkman & Lazarus, 1984). Problem-focused coping has been defined as purposeful task-oriented efforts aimed at solving the problem, cognitively restructuring the problem, or attempts to alter the situation. The main emphasis is on the task or planning, and on attempts to solve the problem (Endler & Parker, 1999). Emotion-focused coping refers to self-oriented efforts that aim at analyzing and dealing with emotional responses towards stressors (Endler & Parker, 1999). Problem- and emotion-focused coping may have different relationships with health and well-being. Generally, problem-focused coping has been suggested to be more adaptive, reducing the strength of the relationship between stressors and strains (Compas et al., 2001; Penley et al., 2002). On the other hand, emotion-focused coping may be a less effective approach which has been shown to relate to enhanced negative emotional states (Gunthert, Cohen, & Armeli, 2002; Park, Armeli, & Tennen, 2004).

The appropriateness of the problem- versus emotion-focused coping conceptualization has been criticized for various reasons. First, a large portion of previous work has approached coping as a personality style or trait. This approach assumes that coping style can be measured like a trait without reference to any specific situation and assumes that individuals adopt a consistent coping strategy across stressors. Counter to this, recent work has proposed that coping is a process that is continually changing and coping responses will depend on the situation (Folkman, Lazarus, Dunke-Schetter, DeLongis, & Gruen, 1986). In two studies with structured interviews to understand how participants coped with stressors that they had experienced in the last five months, it was found that patterns of coping varied within the same individual from one stressful experience to another (Folkman et al., 1986; Folkman et al., 1986).

Second, the problem- versus emotion-focused coping conceptualization assumes that a single strategy will always be more adaptive than another. Problem-focused coping has historically been accepted as more effective than emotion-focused coping. However, some recent empirical work has suggested this is not the case. In fact, some work supports the idea that emotion-focused coping is beneficial for well-being. One study reported a positive relationship between emotion-focused coping and positive affect in women (Yamasaki & Uchida, 2006). In a longitudinal study, cognitive reinterpretations (classified as an emotion-focused coping style) at time 1 was shown to predict positive affect at time 2 (Yamasaki, Sakai, & Uchida, 2006). In another study of incarcerated individuals, emotion-focused coping by sharing negative emotions increased both psychological and physical well-being (Van Harreveld, Van Der Pligt, Claassen, & Van

Dijk, 2007). One review paper suggested that certain types of emotion-focused coping strategies may have positive relationships with health (Worthington & Scherer, 2004).

Additionally, some work suggests that problem-focused coping is not always effective. In one study of hospice workers, it was found that reliance on problem-focused coping strategies may increase the incidence of emotional exhaustion (Sardiwalla, VandenBerg, & Esterhuyse, 2007). This study also suggested that emotion-focused strategies, such as emotional support and positive reformulation, may be more effective. Thus, the conventional wisdom that problem-focused coping is more adaptive than emotion-focused coping may be challenged.

Therefore, this study adopts the orientation that because our environment is constantly changing, our coping strategies also change as we adapt to the characteristics of each stressful situation. Simply, the coping strategy used for various types of stressors may be different. Given the same individual, coping strategies may change based on the characteristics of the stressor. For this reason, a specific stressor is chosen (interpersonal conflict at work) and coping in relation to that specific stressor, rather than stressors in general, will be measured.

Because people may adopt different coping strategies on a situation-specific basis, effectiveness of those strategies may depend on the characteristics of the stressor at hand. One characteristic that may have important relationships with coping is perceived control. The effectiveness of coping may depend on level of perceived control. Specifically, certain types of coping strategies may be more effective when perceived control is high while other types of coping strategies may be more effective when perceived control is

low. However, little work has been conducted to simultaneously study coping and control in relation to the stressor-strain relationship.

Furthermore, perceived control may have direct effects on well-being. The Job Demand-Control (JDC) model posits that job control can buffer the effects of demands, or stressors, on employee strain (Karasek, 1979). Recent reviews on the JDC model have provided substantial evidence for the main positive effects of job control on well-being (de Lange, Taris, Kompier, Houtman, & Bongers, 2003). Furthermore, research has supported the moderating effects of control on the stressor-strain relationship. Empirical studies demonstrated that high levels of perceived control over stressors can reduce the negative relationships between stressors and health (Shirom, Toker, Berliner, & Shapira, 2008; Van der Doef, & Maes, 1998).

Taken together, the purpose of the present study is to explore whether the interplay between coping and control simultaneously moderate the stressor-strain relationship. It may be the interaction between coping strategy and control that predicts how one work-related stressor—interpersonal conflict—is related to well-being. The next section outlines previous literature regarding interpersonal conflict at work and the main effects of this stressor on well-being. Following is a discussion of the role of control in this relationship and the way coping impacts this relationship. Lastly, the proposed model in which the focal stressor interacts with perceived control and coping in predicting well-being is presented.

Interpersonal Conflict

Occupational stressors are a major focus in occupational health psychology. Environmental stressors, job characteristics, and relationships at work are potential

sources of strain in organizational settings. By nature, humans are social beings. We are part of many different types of social networks in our lives such as our family, our schools, and our work organizations. We place value on these relationships and extract information about ourselves based on the dynamics of these relationships (Festinger, 1954). Generally speaking, group membership fulfills a basic need to create positive and continuing relationships with others (Baumeister & Leary, 1985). Therefore, it can be easily accepted that interpersonal relationships may have important relationships with our behavior, emotions, cognitions, and well-being.

While interpersonal relationships may influence us in positive ways, they may also have important negative effects (Berscheid & Reis, 1998), especially when conflict in these relationships arises. In fact, some research suggests that bad relationships may have even more impact on our lives than positive relationships (Berscheid & Reis, 1998). Conflict in relationships can undermine our sense of self (Fiske, 1992). In work relationships, employees' relationships to colleagues can help foster and maintain positive social identities (Fiske, 1992). Interpersonal conflict may therefore be a stressor with reasonable potential of creating strains. Fiske (1992) proposed a general theory of social relations in which all dimensions of social relationships can be classified according to four elementary social models. One of these models is a communal sharing model which seems to apply nicely to workplace relationships. In this type of relationship, individuals have a feeling of being united by a common identity. The focus in these relationships is on commonalities rather than individual identities and participants in these relationships strive to treat each other as socially equivalent. Generally, individuals like and want to be liked by others who are similar to themselves. So, to the extent that

relationships between coworkers reflect a communal sharing model, interpersonal conflict at work is a potent stressor that can elicit strains and thereby having a negative impact one's psychological health and well-being because it undermines one's sense of self, likability, and similarity to others.

Interpersonal conflict may also elicit strain through detriments to group efficacy. It is possible that increased interpersonal conflict may impact collective efficacy beliefs because agreement is unlikely when employees are experiencing high amounts of conflict (Jex & Thomas, 2003). Furthermore, interpersonal conflict may detract from group members' ability to meet performance goals. In fact, interpersonal conflict generally has a negative effect on the performance of groups (Jehn, 1994). The detriment to collective efficacy and performance may subsequently elicit strain. Thus, when there is a high degree of interpersonal conflict, collective efficacy and performance may suffer and in turn produce strains in employees.

It is worthwhile to consider that interpersonal conflict at work is becoming more commonly studied as two dimensions: interpersonal conflict with one's supervisor and interpersonal conflict with co-workers. For the purposes of this study, interpersonal conflict with supervisors is defined as tension or disagreement within the employee-supervisor relationship. Interpersonal conflict with supervisors can arise due to a variety of work-related situations and behaviors such as lack of resources, work overload, fairness issues, role conflict or role ambiguity, and incorrect instructions on how to perform certain job tasks. Interpersonal conflict with co-workers is defined as tension or disagreement within an employee-co-worker relationship. Interpersonal conflict with co-workers may be due to differences among coworkers' personalities, bullying behavior,

free-riding behavior, competition, or differences in the goals of coworkers and is a prevalent problem. While the bulk of previous literature does not distinguish between conflict specific to co-workers or supervisors, recent work suggests that the two types of conflict are qualitatively different, and each deserves research attention (Frone, 2000).

Indeed, empirical evidence supports that interpersonal conflict at work is a significant occupational stressor that is related to deleterious outcomes for employers. In one meta-analysis, interpersonal conflict at work was correlated both with organizational and personal psychological outcomes, including turnover intentions, absenteeism, and organization commitment (Spector & Jex, 1998). Spector and Jex found that interpersonal conflict at work was positively related to turnover intentions (r = .41). Similarly, Frone (2000) found that interpersonal conflict with supervisors predicted diminished organizational commitment and an increased intention to leave the job. Gierbels and Janssen (2005) reported that interpersonal conflict was positively related to absenteeism and turnover intentions. Thus, interpersonal conflict is an important occupational stressor which may influence important organizational outcomes. Next, a discussion of how this stressor may influence employee outcomes, such as well-being is presented.

Well-Being

As mentioned earlier, interpersonal conflict is considered as a stressor and is detrimental to employees' well-being because of its potential to undermine our sense of self, damage our positive social identities, and reduce collective-efficacy beliefs. In the current study, well-being is a broad term used to describe one's general psychological and physical health, and is conceptualized as having a psychological component

(depression, anger, anxiety, and frustration), an attitudinal component (job satisfaction and happiness), and a physical component (physical symptoms and sleep quality). In the following sections, I will review literature examining the relationships between interpersonal conflict and these three components of well-being.

Interpersonal Conflict and Well-being

Occupational stress and well-being is a relationship that has been widely studied in occupational health psychology. In line with this, the present study approaches stress from an organizational psychology perspective, which focuses on psychosocial sources of strain and how they are cognitively appraised (Jex, 2002).

Previous literature has reported relationships between interpersonal conflict at work and employee well-being. Both psychological and physical well-being can be affected by interpersonal conflict (Frone, 2000; Lazuras, Rodafinos, Matsiggos, & Stamatoulakis, 2009; Spector & Jex, 1998) and hostile work environments (Keashly & Harvey, 2005). First, I will review the literature linking conflict at work with psychological and attitudinal well-being and then the literature surrounding interpersonal conflict at work and physical well-being.

Some work has shown that frequent interpersonal conflicts or bullying experiences with supervisors and colleagues can have a significant impact on the levels of perceived stress (Chen & Spector, 1991; Frone, 2000; Hoel, Faragher, & Cooper, 2004; Mikkelsen & Einarsen, 2002). Indeed, many studies have shown interpersonal conflict at work to be a predictor of poor psychological outcomes (Chen & Spector, 1991; Lazuras, Rodafinos, Matsiggos, & Stamatoulakis, 2009; Spector, 1987).

First, depressive symptoms may increase as a result of interpersonal conflict at work. The meta-analysis by Spector and Jex (1998) reported significant relationships between interpersonal conflict and well-being. Interpersonal conflict at work was positively related to depression (r = .38). In a sample of Dutch social service workers, interpersonal conflict at work was positively related to emotional exhaustion (Giebels & Janssen, 2005). Corroborating findings were reported in another study in which both inter- and intra-group conflict was positively associated with depressive symptoms (Nakata et al., 2007). In one study using a sample of Japanese employees, a variety of job stressors, including role conflict, role ambiguity, job control, job requirements, workload and responsibility, and interpersonal conflict, were measured. Amongst the female employees, interpersonal conflict was the most significant factor relating to clinical depression (Ogiwara, Tsuda, Akiyama, & Sakai, 2008). Furthermore, Heinisch and Jex (1997) used a sample of employees from various occupations and organizations to show a significant positive correlation between interpersonal conflict at work and work-related depression.

Other components of psychological well-being have been associated with interpersonal conflict at work as well, namely frustration, anxiety, and anger (Chen & Spector, 1991; Spector, 1987). In a study using 400 employees from various organizations, Chen and Spector (1991) reported that interpersonal conflict at work was a significant predictor of increased levels of both frustration and anger. Similarly, Spector (1987) found significant positive correlations between interpersonal conflict at work and anxiety and frustration levels. Thus, various dimensions of emotional and mental health are measured in the current study, specifically, depression, anger, anxiety, and frustration.

Interpersonal conflict at work may also impact job attitudes. In one study using a sample of 136 clerical employees, Spector (1987) found significant positive correlations of interpersonal conflict at work with job dissatisfaction. In line with this, another recent study by Penney and Spector (2005) obtained ratings from both university employees and their co-workers regarding interpersonal conflict experienced by the primary employee. Results showed that job satisfaction was negatively related to interpersonal conflict at work, regardless of rater. However, in another multi-source study using employee and supervisor ratings, only interpersonal conflict as reported by employees was related to job satisfaction (Spector, Dwyer, & Jex, 1988). Yet, in a meta-analysis by Spector & Jex (1998), interpersonal conflict was negatively related to job satisfaction (r = -.32). While less work has been done connecting interpersonal conflict at work to general happiness or satisfaction with life, previous work has demonstrated that other types of workplace stressors are related to such variables (Hayes & Weathington, 2007). Thus, it is reasonable to expect that interpersonal conflict at work may have important ties to various satisfaction levels and as such, measures of both job satisfaction and general happiness are included in this study.

Interpersonal conflict at work can have meaningful relationships with physical health outcomes as well. In a recent study by Lazuras, Rodafinos, Matsiggos, and Stamatoulakis (2009), interpersonal conflict as reported by a sample of telecommunication workers, was a stronger predictor of illness symptoms, such as frequencies of upset stomach, headache, fever, than was organizational constraints or quantitative workload. In line with this, Spector (1987) found significant positive correlations of interpersonal conflict at work with physical symptoms such as headache,

stomach issues, or chest pain when assessed over a short time period (30 days). Chen and Spector (1991) found that interpersonal conflict was related to the number of doctors' visits employees reported in the prior three months, as well as physical symptoms such as upset stomach or nausea. In a meta-analysis by Spector and Jex (1998), significant positive relationships between interpersonal conflict and somatic symptoms were reported (r = .26). In the current study, physical symptoms similar to those measured in prior work are assessed in order to further understand the relationship between conflict at work and somatic complaints.

As well as physical symptoms of stress, sleep quality may be affected by interpersonal conflicts at work. Nakata et al. (2004) reported that in a sample of white-collar workers, those with high intra-group conflict had a significantly increased risk for insomnia after adjusting for multiple confounding factors. Similarly, in a large sample of male employees across multiple companies, employees with high amounts of interpersonal conflict at the workplace had significantly increased risk of sleep-related breathing disturbance after adjusting for potential confounders (Nakata et al., 2007). Thus, sleep related health issues may be an important outcome related to interpersonal conflict at work and sleep quality is thus measured to better understand this relationship.

Some work has suggested that interpersonal conflict with co-workers and interpersonal conflict with supervisors may have different relationships with well-being outcomes (Frone, 2000). Approaching interpersonal conflict at work as two distinct dimensions, namely interpersonal conflict with supervisors and interpersonal conflict with co-workers, may yield different results. Therefore, interpersonal conflict is studied as two separate stressors in this study. This leads to the first set of hypotheses:

Hypothesis 1: Interpersonal conflict with supervisors will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 2: Interpersonal conflict with co-workers will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 3: Interpersonal conflict with supervisors will have a negative relationship with (a) job satisfaction and (b) happiness.

Hypothesis 4: Interpersonal conflict with co-workers will have a negative relationship with (a) job satisfaction and (b) happiness.

Hypothesis 5: Interpersonal conflict with supervisors will have a positive relationship with physical symptoms.

Hypothesis 6: Interpersonal conflict with co-workers will have a positive relationship with physical symptoms.

Hypothesis 7: Interpersonal conflict with supervisors will have a negative relationship with sleep quality.

Hypothesis 8: Interpersonal conflict with co-workers will have a negative relationship with sleep quality.

Control

Control is one major factor commonly studied in stress research. Control over stressful situations at work has been shown to be important for a variety of work outcomes including both performance and well-being (Dwyer & Ganster, 1991; Jex, 1998). Low perceived control over one's work environment can directly create strain and influence employees' reactions to work situations (Spector, 1998). Control may also

moderate stressor-strain relationships such that stressors can lead to more negative reactions when people believe they lack control over the stressful situation (Jex, 1998). Lack of control over occupational stressors has been shown to increase poor work outcomes such as burnout (Lourel, Abdellaoui, Chevaleyre, Paltrier, & Gana, 2008), counterproductive work behaviors (Tucker et al., 2009), poor health behaviors such as exercise (Payne et al., 2002), and psychological variables such as depression (Ghorbani, Krauss, Watson, & LeBrenton, 2008). Thus, perceived control is an important variable to consider when exploring the relationships between stressors and well-being.

One popular model applied to research surround this concept is the Job Demands Control (JDC) Model proposed by Karasek (1979). This JDC Model incorporates hypotheses about physical, psychological, and performance outcomes. There are two central hypotheses to this model: the learning hypothesis and the strain hypothesis. The learning (or activity) hypothesis of the JDC Model posits that learning is a result of situations characterized by both high demand and high control. This type of combination creates active work. When employees have active jobs or work, they can use the energy required for high demands to effectively solve problems due to also having high levels of control over the demands. As a result, employees learn, develop skills, gain mastery, and are more productive. On the other hand, passive work, or work characterized by low demand and low control, results in reduced motivation and productivity due to rigid environmental conditions.

The strain hypothesis of the model is more relevant to well-being predictions and the strain hypothesis of the model has commonly been applied to examine links between work stress and poor health in both epidemiological studies (De Bacquer et al., 2005) and

occupational health studies (De Croon et al., 2004; Fox et al., 1993). The strain hypothesis proposes that both negative psychological outcomes (e.g., anxiety, anger) and adverse health-related outcomes (e.g., physical pains, poor sleep quality) result from demanding stressors combined with low control. Strain can result from the interactive effects of job demands and the amount of control over the job. Specifically, the theory hypothesizes that in order to minimize strain, job demands should be matched to job control such that when job demands are high, job control should equally be high. High job control allows employees to adapt to demands by having the ability to adopt appropriate behavioral response patterns, or exercise the most effective coping strategies. If the demands of a job occur in parallel with high job control then incumbents are thought to be able to cope actively with the challenges, protecting them from strain and leading to improvements in well-being. However, while high control might provide the opportunity for active or problem-focused coping, this may not necessarily be the actual coping strategy used. The JDC Model recognizes the importance of control for effectively managing occupational stressors, but there may also be importance in the match between level of control and type of coping strategy employed for determining how the event will impact well-being. I will return to this idea in the following section.

Empirical work surrounding stressor, control, and well-being has provided a substantial evidence of the importance of control the stressor-strain relationship (De Croon et al., 2004; Fox et al., 1993). Control is often thought to play a more important role in the stressor-strain relationship when demand, or the severity of the stressor, is high. Some studies have found non-significant interactions between demand and control (Holman & Wall, 2002; Taris, Schreurs, & Van Iersel-Van Silfhout, 2001), but control

has generally been shown to be a buffer against the detrimental effects of stressors on well-being (Dwyer & Ganster, 1991; Payne et al., 2002). In one experimental study, Hutt and Weidner (1993) presented participants with a simulated job and manipulated the amount of control participants had by allowing them to choose the type of work they were to complete (verbal, analytical, or numerical). Demand was also manipulated through imposing either a three minute time limit (high demand) or no time limit (low demand). High control was found to be associated with lower frustration and helplessness and, in females, lower systolic blood pressure. Additionally, low control and high demand groups experienced increased diastolic blood pressure, frustration, and anxiety. This supported that control had important effects on psychological and physical health outcomes. In a longitudinal field study of newly-hired machine operators and office technicians, employees reporting high demand and low control at their job had a significant increase in the amount of health complaints over time. In contrast, the groups reporting high demand and high control had a significant decrease in health complaints over time (Taris & Feij, 2004). These findings highlight the importance of control for potentially reducing the impact of high stress on physical health. In another study using Dutch truck drivers, job control had significant main effect on psychosomatic health complaints and an interaction between job control and job demands also emerged in predicting physical symptoms (De Croon, Van Der Beek, Blonk, & Frings-Dresen, 2000).

However, some work suggests that additional moderators may play a role in how control serves as a buffer in stressor-strain relationships. For example, other factors such as the availability of social support (Johnson & Hall, 1988), individual differences (Meier, Semmer, Elfering, & Jacobshagen, 2008), and coping styles (de Rijk, Le Blanc,

Schaufeli, & de Jonge, 1998; Ippolito, Adler, Thomas, Litz, & Holzl, 2005; Parker & Sprigg, 1999; Parkes, 1991; Schaubroeck, Jones, & Xie, 2001; Schaubroeck & Merritt, 1997) may influence whether control matters for mitigating the relationship between stressors and health. This body of work indicates that control may only serve as a buffer when other specific factors are taken into consideration. This idea will be explored further in the following section.

Karasek (1979) conceptualized job control as including decision authority (e.g., "freedom as to how to work," p. 307) and associated his job control measure with that of job autonomy by Hackman and Oldham's (1975). Ganster (1989) defines job control as "the ability to exert some influence over one's environment so that the environment becomes more rewarding or less threatening" (p. 3). In regards to the JDC Model, a call for research using more specific variables and more clearly defined variables has previously been put forth to better capture the effects of control. This is especially important for translating the research results into specific practical recommendations for organizations (Jones, Bright, Searle, & Cooper, 1998). Therefore, in the current work, two specific occupational stressors (interpersonal conflict with supervisors and interpersonal conflict with co-workers) are examined and perceived control *specific* to each of these situations is measured. The definition of control in this study is more aligned with Ganster (1989) and represents the real or perceived ability to change or alter the environment or situation in order to reduce the presence of the stressor itself. With that, the second set of hypotheses is presented:

Hypothesis 9: Perceived control over interpersonal conflict with supervisors will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 10: Perceived control over interpersonal conflict with co-workers will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 11: Perceived control over interpersonal conflict with supervisors will have a positive relationship with (a) job satisfaction and (b) happiness.

Hypothesis 12: Perceived control over interpersonal conflict with co-workers will have a positive relationship with job satisfaction and happiness.

Hypothesis 13: Perceived control over interpersonal conflict with supervisors will have a negative relationship with physical symptoms.

Hypothesis 14: Perceived control over interpersonal conflict with co-workers will have a negative relationship with physical symptoms.

Hypothesis 15: Perceived control over interpersonal conflict with supervisors will have a positive relationship with sleep quality.

Hypothesis 16: Perceived control over interpersonal conflict with co-workers will have a positive relationship with sleep quality.

Hypothesis 17: There will be a significant two-way interaction between interpersonal conflict and control on all strain outcomes. More specifically, perceived control will reduce relations between interpersonal conflict and well-being, such that the conflict-well-being relationship will be weaker when employees perceive high versus low control.

Coping

In addition to control, coping may also play a significant role in the stress process. Coping can be defined as cognitive and behavioral efforts made to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Lazarus & Folkman, 1984). The Cognitive Theory of Stress and Coping (Lazarus & Folkman, 1984) incorporates coping into the transactional process between one's environment and reactions to that environment. This theory is centered on cognitive awareness and appraisal of stressors in the environment. When presented with a stressor, two kinds of appraisals are made: primary and secondary. Primary appraisal arises when a person initially evaluates whether or not the situation represents a threat to one's well-being such as a threat to self-esteem or health. In secondary appraisal, the person evaluates what, if anything, can be done to reduce the presence of the stressor or prevent any harm that may result from the stressor. In secondary appraisal, coping strategies are evaluated and selected given the conditions of the stressor and the resources available. These coping strategies (i.e. changing the situation, seeking more information, changing one's internal reaction to the stressor) may or may not be effective in preventing the stressor's impact on one's well-being and could depend on the type of strategy used. A discussion of the two main categories of coping follows.

Problem-focused coping. Coping has been proposed to have two major functions: dealing with the problem that is causing the distress, a concept termed problem-focused coping, and/or regulating emotion, termed emotion-focused coping (Folkman et al., 1986; Folkman & Lazarus, 1984). Specifically, problem-focused coping has been defined as purposeful task-oriented efforts aimed at solving the problem,

cognitively restructuring the problem, or attempts to alter the situation. The main emphasis is on the task or planning, and on attempts to solve the problem (Endler & Parker, 1999). Emotion-focused coping describes emotional reactions that are self-oriented and focused on managing emotions surrounding stressors. One conceptualization divides emotion-focused coping into two dimensions: emotional processing and emotional expression (Stanton, Danoff-Burg, Cameron, Bishop, Collins, Kirk et al., 2000). Emotional processing consists of understanding and validating emotional states in response to a stressor whereas emotional expression consists of letting emotions out or venting. However, many other conceptualizations of coping have been proposed. There are many attempts to reduce the total number of possible coping responses to a parsimonious set of coping styles. Some researchers have come up with dimensions such as instrumental, attentive, or vigilant coping on the one hand, in contrast to avoidant, palliative, and emotional coping on the other (Parker & Endler, 1996; Schwarzer & Schwarzer, 1996). One of the more popular approaches was put forth by Carver, Scheier, and Weintraub (1989). This group developed a set of 15 coping strategies with dimensions such as acceptance, positive reinterpretation and growth, behavioral disengagement, humor, and religious coping. However, Carver and colleagues recommend no particular way of generating a dominant coping style from these various dimensions and suggest each coping style scale be looked at individually rather than comparing across scales. Other work has proposed that coping styles should be based on action types. Action types are higher order classes of actions with a common motivation underlying that action such as problem solving, support seeking, escape, distraction, and positive cognitive restructuring (Skinner, 2003). Still other distinctions include

dichotomous conceptualizations of coping. For example, coping has been broken into approach (responses that bring the individual in closer contact with the stressful encounter) versus avoidance (responses that allow the individual to withdraw) coping (Roth & Cohen, 1986). However, some researchers have suggested that avoidant coping is the sum of strategies aimed at escaping from the pressures of the stressful situation (Carver, Scheier, & Pozo, 1992) and a plausible argument may be that avoidance is not a true form of coping at all. In fact, avoidance coping may be dysfunctional because it may lead to the creation of other stressors. For example, mental and physical disengagement may detract from an employee's job performance, which itself may eventually become a stressor. Another dichotomous approach to coping styles distinguishes primary control coping (change the stressor through problem solving or emotion regulation) from secondary control coping (facilitate adaptation to stress via acceptance or cognitive restructuring; Rothbaum, Weisz, & Snyder, 1982). This conceptualization fits well with Lazarus and Folkman's (1984) distinction between problem- and emotion-focused coping. Clearly, many different approaches for conceptualizing coping styles have been proposed and as of now, no universal approach has been adopted.

The position taken on coping in this study is that coping is a process and may be different within individuals given different stressors. Coping will be approached as a construct that is stressor-specific, rather than a stable trait that will be applied to all stressors in general.

While considering the multiple conceptualizations of coping reviewed above, a large portion of modern coping research has been profoundly influenced by Lazarus and Folkman's (1984) distinction between problem- and emotion-focused coping. While

some work has criticized the broad dichotomy of problem- and emotion- focused coping (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Skinner, 2003), the purpose of the research at hand must be considered when determining what conceptualization to use (Lazarus, 1995). This conceptualization is best suited for the current study for three reasons. First, the purpose of this study is to explore how particular coping strategies may be more effective given various levels of perceived control. Given the novelty of studying these particular relationships, a well-established conceptualization may be appropriate. Next, using problem- and emotion-focused coping is a common way to approach coping styles and will allow results to easily integrate into the previous literature. Finally, well-established scales for problem- and emotion-focused coping that can easily be modified to reference interpersonal conflict at work are readily available. Using a well-established scale will help defend the reliability and validity of the tool, especially considering the fact that the items will be adjusted slightly to suit interpersonal conflict specifically.

Given the approach to coping adopted for this study, I will next discuss the body of literature surrounding coping and well-being and then previous research exploring coping, control, and well-being relationships. There has been much work suggesting that coping is directly related to well-being (Compas et al., 2001). Lazarus and Folkman (1984) suggested that once an event is appraised as being stressful, coping behaviors are employed in order to lessen the impact the stressor has on well-being.

Although no coping style is universally effective, research tends to support the efficacy of problem-focused coping in terms of improving physical and mental health outcomes (Compas et al., 2001; Penley et al., 2002). For example, in occupational stress

research, negative relationships between problem-focused coping and the experience of various types of dissatisfaction and work-related strain have been reported (Aryee, Luk, Leung, & Lo, 1999; Lapierre & Allen, 2006). Aryee and colleagues (1999) found that in a sample of 243 Chinese respondents, problem-focused coping was positively correlated with job, family, and life satisfaction but emotion-focused coping did not have a significant correlation with any satisfaction variables. In another study using a sample of 400 police officers, active coping (a collection of responses centered on taking action to reduce the presence of the stressor, similar to problem-focused coping) positively related to job satisfaction and escapist (avoidant) coping was positively related to psychosomatic complaints (Burke, 1998). Problem-focused coping with stressors at work was positively related to mental health in a study of New Zealand nurses (Chang et al., 2007). In a study about unemployment uncertainty, problem-focused coping strategies were related to lower perceived stress (Mantler, Matejicek, Matheson, & Anisman, 2005). Problem-focused coping has also been shown to positively relate to positive emotional states on a day to day basis (Dunkley, Zuroff, & Blankstein, 2003; Gunthert, Cohen, & Armeli, 2002; Park et al., 2004). Problem-focused coping strategies may therefore have beneficial effects on well-being.

Before presenting the next set of hypotheses, it is worthwhile to note that this study adopts the notion that there will be variance among how individuals cope with a specific stressor. In addition, there will be variance in how one individual copes with different stressors. However, for this study, coping with a specific stressor is assumed to be generally stable within individuals. Terry (1994) has demonstrated that an individual is more likely to use the coping methods for a stressor that were used in response to

similar stressors in the past. Based on this, measuring coping strategy in relation to a specific stressor has value because individuals likely employ the same methods given multiple encounters with the same stressor. This line of thought leads to the next set of hypotheses:

Hypothesis 18: Problem-focused coping with interpersonal conflict with supervisors will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 19: Problem-focused coping with interpersonal conflict with co-workers will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 20: Problem-focused coping with interpersonal conflict with supervisors will have a positive relationship with (a) job satisfaction and (b) happiness.

Hypothesis 21: Problem-focused coping with interpersonal conflict with co-workers will have a positive relationship with (a) job satisfaction and (b) happiness.

Hypothesis 22: Problem-focused coping with interpersonal conflict with supervisors will have a negative relationship with physical symptoms.

Hypothesis 23: Problem-focused coping with interpersonal conflict with co-workers will have a negative relationship with physical symptoms.

Hypothesis 24: Problem-focused coping with interpersonal conflict with supervisors will have a positive relationship with sleep quality.

Hypothesis 25: Problem-focused coping with interpersonal conflict with co-workers will have a positive relationship with sleep quality.

Emotion-focused coping. Research on emotion-focused coping has been less cohesive. Variants of emotion-focused coping have been shown to relate positively to negative emotional states (Gunthert et al., 2002; Park et al., 2004) and psychological states (Kolenc, Hartley, & Murdock, 1990). However, as mentioned earlier, other work has not found the same relationships. For example, some studies report a positive relationship between emotion-focused coping and positive affect (Yamasaki et al., 2006; Yamasaki & Uchida, 2006). Additionally, Dunkley and colleagues (2003) found that emotion-focused strategies had no relationship to negative affect.

In contrast, other work supports the notion that emotion-focused strategies may lead to poorer well-being. Kolenc and colleagues (1990) found that mildly depressed individuals used more emotion-focused coping than non-depressed individuals. A study that measured coping strategies in 100 lawyers found that greater use of emotion-focused coping was associated with greater levels of anxiety. However, this study found that this relationship was not significant for depression (Callan, Terry, & Schweitzer, 1994). A study examining a group of urban bus and tram drivers found positive relationships between emotion-focused coping strategies (termed "unstable submission") and work-related stress, psychosomatic complaints, and exhaustion (Kühlmann, 1990). Along these same lines, emotion-focused coping was found to contribute to negative work experiences in a group of 527 police officers (Hart, Wearing, & Headey, 1995). In an experimental study, Sideridis (2006) presented undergraduate students with the situation of a job interview. Results indicated that the use of emotion-focused coping was

associated with heightened negative emotions. Moreover, in a sample of technology workers, emotion-focused coping strategies were related to higher reported strain in relation to job uncertainty (Mantler et al., 2005). Emotion-focused coping has also been studied in relation to health outcomes. For example, one quasi-experimental study found emotion-focused coping to impact sleep. Undergraduates who used more emotion-focused coping reported less sleep that they were able to obtain sleep during high stress periods (Sadeh, Keinan, & Daon, 2004).

Additionally certain dimensions of emotion-focused coping have been shown to have stronger relationships with health than others. In particular, some work shows that emotional expression (letting feelings out or expressing feelings) may be more strongly tied to well-being than emotional processing (acknowledging and validating feelings internally; Spiegel, Bloom, Kraemer, & Gottheil, 1981; Spiegel, Bloom, & Yalom, 1981).

Inconsistency in the literature about the relationship between emotion-focused coping and well-being makes hypothesis formulation difficult. However, it seems that there may be slightly stronger evidence suggesting emotion-focused coping to have detrimental effects on well-being. Based on this, the following hypotheses are put forth:

Hypothesis 26: Emotion-focused coping with interpersonal conflict with supervisors will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 27: Emotion-focused coping with interpersonal conflict with co-workers will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.

Hypothesis 28: Emotion-focused coping with interpersonal conflict with supervisors will have a negative relationship with (a) job satisfaction and (b) happiness.

Hypothesis 29: Emotion-focused coping with interpersonal conflict with co-workers will have a negative relationship with (a) job satisfaction and (b) happiness.

Hypothesis 30: Emotion-focused coping with interpersonal conflict with supervisors will have a positive relationship with physical symptoms.

Hypothesis 31: Emotion-focused coping with interpersonal conflict with co-workers will have a positive relationship with physical symptoms.

Hypothesis 32: Emotion-focused coping with interpersonal conflict with supervisors will have a negative relationship with sleep quality.

Hypothesis 33: Emotion-focused coping with interpersonal conflict with co-workers will have a negative relationship with sleep quality.

Conflict, Control, Coping, and Well-Being

While the effects of control on the stressor-strain relationship and the effects of coping strategy on the stressor-strain relationship have been studied in two different lines of research, little work has been done looking at the interactive effects of control and coping together in predicting strain related outcomes. Furthermore, much of the research in the areas of control and coping has produced discrepant findings, making it hard to synthesize the conclusions into a coherent understanding of the roles both control and coping play. For example, a review by Van der Doef and Maes (1998) found that control served as a buffer against the detrimental effects of stressors in only half of the studies

reviewed and sometimes only in specific subsamples. It is plausible that the reason for the divergent results across studies is because control and coping are not included and considered within the same model. For example, some experimental studies have demonstrated that high levels of control may actually be detrimental for well-being. This is a notion widely different from much of the empirical pursuits and this discrepancy may be stem from a disregard for coping method used. In one study, Rau (1996) manipulated control by assigning high control shift leader positions to study participants. Results indicated that those subjects with high control positions had lower perceived success on the assigned work tasks. These subjects also had elevated blood pressure and heart rates during the experiment. It is possible that the reason high control did not serve as a buffer in this study was because coping style of the shift leaders was not simultaneously considered. If subjects generally felt problem-focused coping methods were not appropriate in this scenario and only coped through emotion-focused methods, then there would be incongruence between the level of control and the most adaptive coping style, thus resulting in poorer outcomes. Furthermore, Hockey and Earle (2006) used a simulated office task in which control over the work schedule was manipulated. Results indicated that high control was associated with higher anxiety, again a counter-intuitive finding given the large amount of work in support of control as a buffer. Interestingly, however, in a second study Hockey and Earle found that training in the effective use of work scheduling control reversed the relationship such that with training, control was beneficial for employees (Hockey & Earle, 2006). It could be argued that providing the training allowed employees to employ more problem-focused coping strategies to deal

with the demands of the work tasks. In this case, a match between level of control and coping strategy arose, thus mitigating the effects the stressors had on well-being.

In fact, some work has found interactions between demand and control only for subgroups of the population such as individuals high in active coping (de Rijk et al., 1998). De Rijk et al. found that job control was only able to buffer the relationship between intensive care nurses' job demands and their emotional exhaustion when an active coping style was used. In another study using a military sample, job control moderated the relationship between demands and psychological health during deployment but only when soldiers used active coping. This effect remained significant after controlling for general psychological health at predeployment (Ippolito et al., 2005). Generally, a combination of high control and active or problem-focused coping strategies seems to lead to the best outcomes. One explanation may be that when employees have high levels of control, they actually have the ability to effectively change or reduce the presence of the stressor. This would make problem-focused methods effective. If control is high and strategies geared at reducing the stressor itself are used, reducing the stressor itself is possible. However, when employees have low levels of control, using problem-focused methods may not be as adaptive because changing the situation is less feasible, and so the relationship between conflict and well-being will reflect a typical negative relationship. In the case that problem-focused methods are used, but control is low, individuals may feel a sense of frustration, helplessness, and increases in strains because their efforts to cope are not effectively reducing the stressor. Furthermore, low problem-focused coping in combination with low control provides little opportunity at all to change or reduce the stressor and is also expected to result in a strong negative

relationship between conflict and control. When low-problem focused coping is used in combination with high control, the opportunity to change the situation exists but the appropriate strategies to do so are not being used, thus a similarly strong negative relationship between conflict and well-being is expected. Thus, it is only the case of problem-focused coping strategies coupled with high perceived control that it is expected to minimize the detrimental relationship between stressor and well-being outcomes. In other words, the relationship between interpersonal conflict and well-being will be weaker when problem-focused coping strategies are used and control is high, as opposed to any other combination (high control and low problem-focused coping, low control and high problem-focused coping, or low control and low problem-focused coping). The hypotheses regarding problem-focused coping reflect this notion.

The hypothesized effects regarding emotion-focused coping are somewhat different. In situations where emotion-focused coping methods are used and perceived control over the stressor is low, employing coping strategies geared toward changing one's internal state, rather than the external environment, may be the most effective. High levels of emotion-focused strategies may be well suited for the situation of low perceived control because employees are less able to change the external environment, but their internal state or orientation to the stressor is more malleable. In this case, emotion-focused strategies are adaptive. Therefore, when high levels of emotion-focused coping are used and control is low, the relationship between interpersonal conflict and well-being will be weak. On the other hand, a combination of high emotion-focused coping and high control may cause additional frustration, anxiety, or strain because the opportunity to change the situation is present but the strategy to cope with the conflict is

not producing an external change. In this case, the opportunity to change the conflict (given high perceived control) is wasted by using emotion-focused coping and is expected to result in the strongest negative relationship between interpersonal conflict and well-being. When employees use low levels of emotion-focused coping and perceive high control, a similarly strong negative relationship between conflict and well-being is expected to emerge because the ability to change the situation is present but very little coping efforts are being made. Low levels of emotion-focused coping coupled with low control is also expected to preserve the negative relationship between conflict and well-being as low control leaves little opportunity to change the external situation and no efforts to manage internal states are being made. Thus, weak relationships between the stressor and strains will only result when high problem-focused coping is coupled with high control or high emotion-focused coping is coupled with low control. As such, a three-way interaction between the presence of the stressor (interpersonal conflict with supervisors or with co-workers), perceived control over the stressor, and coping strategy used for the stressor is expected to emerge. Figures 1 represents a schematic model to summarize the relationships among the focal variables.

> Hypothesis 34: There will be a three-way interaction between interpersonal conflict with supervisors, control, and problem-focused coping in the prediction of well-being outcomes. More specifically, high perceived control will mitigate relations between interpersonal conflict with supervisor and well-being only among employees who also report use of problem-focused coping methods for this stressor.

Hypothesis 35: There will be a three-way interaction between interpersonal conflict with co-workers, control, and problem-focused coping in the prediction of well-being outcomes. More specifically, high perceived control will mitigate relations between interpersonal conflict with co-workers and well-being only among employees who also report use of problem-focused coping methods for this stressor.

Hypothesis 36: There will be a three-way interaction between interpersonal conflict with supervisor, control, and emotion-focused coping in the prediction of well-being outcomes. More specifically, low perceived control will mitigate relations between interpersonal conflict with supervisor and well-being among employees who also report use of emotion-focused coping methods for this stressor.

Hypothesis 37: There will be a three-way interaction between interpersonal conflict with co-workers, control, and emotion-focused coping in the prediction of well-being outcomes. More specifically, low perceived control will mitigate relations between interpersonal conflict with co-workers and well-being among employees who also report use of emotion-focused coping methods for this stressor.

Chapter Two

Method

Participants and Procedure

Participants were recruited through approved advertisement in the surrounding community of a large US city and through a large southeastern university. Inclusion criteria for this study included that participants be employed at least 20 hours a week for pay. Participants had to be at least 18 years old.

Three hundred seventy-four focal participants were recruited into this study. Two hundred sixty-two of the focal participants were female, 87 were male, and 25 did not identify themselves. Focal participants were on average 21.1 years old (*SD* = 4.2). Also, a majority of the participants (54%) were Caucasian, with 17% of the sample being Hispanic or Latino, 17% African American, and the remaining 12% being of other ethnicities. Most of the participants (54%) indicated that they worked in the retail or service industry, with the second highest representation being in professional positions such as accounting or legal services (9%). The average number of hours worked was reasonably high 23.7 (*SD* = 9.2). Average tenure for the job the focal participant currently held was 1.8 years (*SD* = 1.8).

Participants were asked to physically come to the designated research lab or classroom to receive their study packet. The packet included detailed instructions, informed consent, and information assuring participants that their data would be

anonymous and kept confidential. Participants were given instructions for completing the consent document and the survey. Once the survey was completed, participants were asked to give the mail-in secondary source survey to a person with whom a close personal relationship was held (significant other or best friend). Participants were provided with the secondary source cover letter, survey, and a pre-addressed and postage paid envelope that could simply be dropped in any USPS mail box upon completion. Second source reported the psychological well-being measures and the job and happiness measures of the focal participants. In some cases, course credit was offered for the focal participants' participation. No compensation was provided to the secondary source participants.

Secondary source packets were provided to all 374 focal participants. One-hundred and sixty-one secondary source packets were returned resulting in 161 matched pairs of data and yielding a response rate of 43%. Forty-three percent of the secondary source participants were romantic significant others. Forty-four percent were friends of the focal participant. The remaining 13% identified themselves as having some kind of kindred relationship to the focal participant such as sibling or cousin. Eighty four of the secondary source participants were female, 71 were male, and 6 did not identify themselves. Also, a majority of the participants, 66%, were Caucasian, with 15% of the sample being Hispanic or Latino, 10% African American, and the remaining 9% being of other ethnicities.

Measures

Demographics. Demographic variables collected included gender, age, ethnicity, tenure, and work hours. Please see Appendices A and N for items.

Interpersonal conflict. Interpersonal conflict at work was assessed by the Interpersonal Conflict at Work Scale (Spector & Jex, 1998). The original scale has 4 items, and will be reworded to assess conflict with supervisors and coworkers the proposed project. Participants indicated how well they get along with others at work using a 5-point Likert-type scale (1 = Less than once per month or never; 5 = Several times per day). The scale score is the mean of the responses for the items corresponding to supervisors and coworkers. Internal consistency reliability was .77 for scales pertaining to both supervisor and co-workers. Please see Appendices B and E for items.

Perceived control. Perceived control over interpersonal conflict with supervisors and with co-workers was measured using four adapted items from the Work Control scale developed by Dwyer & Ganster (1991). Items included *"How much control do you personally have over the quality of your relationship with your supervisor/co-workers, How much can you control when and how much you have to interact with your supervisor/co-workers at work, How much are the interactions between you and your supervisor/co-workers predictable, and, In general, how much overall control to do you have over resolving conflict between you and your supervisor/a co-worker?".* Participants responded on a 5-point Likert-type scale (1 = Very little; 5 = Very much). The scale score is the mean of the responses for the items. The internal consistency for this scale was .80 when supervisors were the referent and .83 when co-workers were the referent. Please see Appendices C and F for items.

Coping. Coping strategy for both interpersonal conflict with supervisor and interpersonal conflict with co-workers was measured using the problem-focused coping items from Coping Inventory for Stressful Situations (CISS) scale (Endler & Parker,

1999). Participant's problem-focused coping (15 items) was assessed on a 5-point Likert-type scale from 1 (Not at all) to 5 (Very much). The scale score is the mean of the responses for the items on each coping scale. Coefficient alpha for problem-focused coping items was .88 when supervisors were the referent and .93 when co-workers were the referent. For emotion-focused coping, the Emotional Approach Coping Scale (Emotional Processing and Emotional Expression) was used (Stanton, Kirk, Cameron, & Danoff-Burg, 2000). For the Emotional Processing scale, coefficient alpha was .85 when supervisors were the referent and .84 when co-workers were the referent. For the Emotional Expression scale, coefficient alpha was .92 when supervisors were the referent and .93 when co-workers were the referent. Please see Appendices D and G for items.

Anger, anxiety, and depression. Participants' anger (3 items), anxiety (4 items) and depression (6 items) was assessed by three subscales from the Brief Symptom Inventory 18 (Derogatis, 2003). Second source data was also obtained on this scale. Response choices ranged from 1 (never or a little) to 4 (most of the time). Participants' anger, anxiety, and depression scores were calculated by finding the mean of the responses to the corresponding items. The internal consistencies for anger, anxiety, and depression were .88, .63, .83, respectively when focal participants provide self-reports. The internal consistencies for anger, anxiety, and depression were .82, .57, .89, respectively when secondary sources provided the reports. Please see Appendices H and O for items.

Frustration. Participants' frustration at work was assessed by the Frustration with Work scale (Peters, O'Connor, & Rudolf, 1980). Second source data was also obtained on this scale. The 3-item scale asks participants to rate their frustration at work

using a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). The coefficient alpha value was .79 when rated by focal participants and .74 when rated by secondary sources. The score will be calculated by averaging participants' responses on the items. Please see Appendices I and P for items.

Job satisfaction. Job satisfaction was assessed with the 3-item scale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Klesh, 1979). Second source data was also obtained on this scale. A 5-point Likert scale was the response format. Coefficient alpha was .86 when for both focal participants and secondary source reports on this scale. Participants' satisfaction with the job was calculated by averaging their responses to the items. Please see Appendices J and Q for items.

Subjective happiness. Subjective happiness was assessed with a 4-item scale, the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999). Second source data was also obtained on this scale. A 7-point Likert scale was the response format. The coefficient alpha was .83 when focal participants provided the ratings and .81 when secondary sources provided the rating. Please see Appendices K and R for items.

Physical symptoms. Physical symptoms were measured by a shortened 13-item modified version of Spector and Jex's (1998) Physical Symptom Inventory (PSI). Participants were asked to indicate how often each physical symptom had occurred in the past three months. Response choices ranged from 1 (less than once per month or never) to 5 (several times per day). Participants' physical symptoms score was calculated by averaging responses to the items. Coefficient alpha for the scale was .82. Please see Appendix L for items.

Sleep quality. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI; Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). This scale uses subjective ratings of sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction over the last month to measure overall sleep quality. The range of scale scores for this measure is 1 to 21, with higher scores representing poorer sleep quality. The alpha for this scale was .56. Please see Appendix M for items.

Data Analysis

All primary data analysis was conducted using SPSS software. Data was checked for completeness and accuracy. Outliers were assessed before analyses were run, but no data was eliminated. Hypotheses 1-16 and 18-33 were tested using bivariate two-tailed correlations and hypotheses 17 and 34-37 were tested using moderated multiple regression analysis following the recommendations of Cohen, Cohen, West, and Aiken (2003).

Chapter Three

Results

The results of this study are presented in four sections. First, correlations between focal participant reports and secondary source reports of well-being measures are presented. Next, hypothesized correlational results for Hypotheses 1-16 and 18-33 are presented when dependent variables were rated by the focal participants, followed by secondary source-rated dependent variables. Lastly, simple regression and moderated multiple regression results for Hypotheses 17 and 34-37 are presented for both focal participant ratings and secondary source ratings of well-being. No significant relationship was found between demographic variables (i.e., gender, age, and tenure) and any of the dependent variables; therefore, they were not entered as control variables. The secondary sources will from this point forward be interchangeably referenced as "significant others".

Correlations

Intercorrelations among all variables are presented in Table 2. Relationships between well-being levels as reported by the focal participants were significantly related to well-being levels as reported by the significant others. Relationships were moderate to strong [depression (r = .47, p < .001), anger (r = .42, p < .001), anxiety (r = .22, p < .01), job frustration (r = .38, p < .001), job satisfaction (r = .52, p < .001) and happiness (r =

.46, $p < .001$)]. This indicates agreement concerning the well-being of the focal participants among the sources.

Focal participant ratings. Correlations reported below are shown in Table 2. Hypotheses 1 and 2 were supported in that interpersonal conflict with supervisors had significant positive relationships with levels of depression ($r = .40$, $p < .001$), anger ($r = .38$, $p < .001$), anxiety ($r = .16$, $p < .05$), and job frustration ($r = .31$, $p < .001$). Similarly, reports of interpersonal conflict with co-workers had significant, positive relationships with depression ($r = .31$, $p < .001$), anger ($r = .18$, $p < .001$), anxiety ($r = .32$, $p < .04$), and job frustration ($r = .20$, $p < .001$). Hypothesis 3 was fully supported as interpersonal conflict with supervisors had significant negative relationships with job satisfaction ($r = -.27$, $p < .001$) and happiness ($r = -.15$, $p < .001$). However, interpersonal conflict with co-workers was only significantly related to job satisfaction ($r = -.19$, $p < .001$) and not to happiness, lending partial support for Hypothesis 4. Hypotheses 5 and 6 were fully supported as conflict with supervisors ($r = .19$, $p < .001$), as well as with co-workers ($r = .23$, $p < .001$), were positively related to physical symptoms. Neither interpersonal conflict with supervisors nor with co-workers was related to overall sleep quality, providing no support for Hypotheses 7 and 8.

Perceived control over conflicts with a supervisor was negatively related to levels of depression ($r = -.30$, $p < .001$), anger ($r = -.20$, $p < .001$), anxiety ($r = -.19$, $p < .001$), and job frustration ($r = -.27$, $p < .001$), providing full support for Hypothesis 9. Perceived control over conflicts with co-workers was negatively related to levels of depression ($r = -.24$, $p <001$), anxiety ($r = -.14$, $p < .01$), and job frustration ($r = -.14$, $p < .01$), but not to anger, providing partial support for Hypothesis 10. Hypotheses 11 and 12

received partial support as perceived control over conflicts with both a supervisor and co-workers were significantly, positively related to job satisfaction (r = .28, p < .001; r = .28, p < .001) respectively, but were not related to happiness. Perceived control over either type of conflict was unrelated to physical symptoms, and therefore Hypotheses 13 and 14 were unsupported. Control over interpersonal conflict with neither supervisors nor co-workers was related to overall sleep quality, providing no support for Hypotheses 15 and 16.

Problem-focused coping with interpersonal conflict with a supervisor was negatively related to depression (r = -.20, p < .001) and job frustration (r = -.17, p < .01), but unrelated to anxiety and anger, providing partial support for Hypothesis 18. The same pattern of results was found for problem-focused coping with interpersonal conflict with co-workers as it was negatively related to depression (r = -.23, p < .001) and job frustration (r = -.14, p < .01), but not to anxiety or anger. Thus, only partial support for Hypothesis 19 was found. In line with Hypothesis 20, problem-focused coping with conflict with a supervisor was positively associated with job satisfaction (r = .23, p < .001) and happiness (r = .13, p < .05). Supporting Hypothesis 21, problem-focused coping with conflict with co-workers was positively associated with job satisfaction ratings (r = .22, p < .001) and happiness (r = .15, p < .01). No support for Hypothesis 22 or 23 was found as neither problem-focused coping with conflict with supervisors nor with co-workers was related to reports of physical symptoms. Similarly, no support for Hypothesis 24 or 25 was found as neither problem-focused coping with conflict with supervisors nor with co-workers was related to sleep quality.

Emotion-focused coping to manage interpersonal conflict with supervisors was unrelated to depression, anxiety, anger, or job frustration with the exception of emotional processing strategies being positively related to reports of depression (r = .11, p < .05). Thus, minimal support for Hypothesis 26 was found. Emotion-focused coping to manage interpersonal conflict with co-workers was also unrelated to depression, anxiety, anger, or job frustration, again with the exception of significance for emotional processing strategies being negatively related to reports of depression (r = .10, p = .05). Thus, minimal support for Hypothesis 27 was found. Emotional processing to cope with conflict with supervisors (r = .10, p < .05) and co-workers (r = .10, p = .05) was positively related to happiness. The direction of this relationship was opposite to expectations. No other significant relationships between emotion-focused coping and job satisfaction or happiness emerged. Thus, Hypotheses 28 and 29 were not supported. No relationships between emotion-focused coping and physical symptoms or sleep quality emerged. Thus, Hypotheses 30-33 were not supported.

Secondary source ratings. Hypotheses 1 and 2 were partially supported when the well-being dependent variables were reported by the secondary sources. Interpersonal conflict with supervisors was also significantly related to other reports of anxiety (r = .15, p <.05), anger (r = .18, p < .05), and job frustration (r = .15, p = .05) but relationships with significant other reports of depression (r = .15, p = .06) was only marginally significant. Interpersonal conflict with co-workers was only significantly related to other reports of depression (r = .16, p <.05), but not to anxiety, anger, or job frustration. Interpersonal conflict with supervisors had a significant negative relationship with job satisfaction (r = -.28, p < .001), but Hypothesis 3 only gained partial support as the

relationship between conflict with supervisors and happiness was marginally significant (r = -.14, p = .07). Similarly, the relationship between interpersonal conflict with co-workers and job satisfaction was just above the significance level (r = -.15, p = .055). There was no significant relationship between interpersonal conflict with co-workers and happiness. Hypothesis 4 was therefore partially supported. Because physical symptoms and sleep quality were not measured using secondary source reports. Hypotheses 5-9 and 22-25 cannot be tested with secondary source data.

Neither perceived control over conflicts with supervisors nor perceived control over conflicts with co-workers were related to secondary source reported levels of depression, anger, anxiety, or job frustration. Similarly, neither perceived control over conflicts with supervisors nor with co-workers was significantly related to job satisfaction or happiness. Thus, no support for Hypotheses 9-12 was found using the secondary source ratings.

Problem-focused coping with interpersonal conflict with supervisors and co-workers was negatively related to depression (r = -.25, p < .01; r = -.27, p < .001) and anger (r = -.21, p < .05; r = -.19, p < .05) respectively, but unrelated to anxiety and job frustration providing only partial support for Hypotheses 18 and 19. Problem-focused coping with conflict with supervisors was positively associated with job satisfaction as rated by significant others (r = .24, p < .01), but not to happiness. Thus, only partial support of Hypothesis 20 was found using the secondary source ratings. Similarly, problem-focused coping with conflict with co-workers was positively associated with job satisfaction as rated by significant others (r = .17, p < .05), but not to happiness, again lending only partial support for Hypothesis 21.

Emotion-focused coping to manage either kind of interpersonal conflict was unrelated to secondary source ratings of depression, anxiety, anger, job frustration, job satisfaction and happiness, lending no support for Hypotheses 26-29.

Regression Analyses

Following the recommendations of Cohen, Cohen, West, and Aiken (2003), scale scores of the three focal predictors were first centered and then the centered scores were used to calculate interaction terms.

Hypothesis 17 proposed a significant two-way interaction between interpersonal conflict and control on all well-being outcomes such that high perceived control would buffer relations between interpersonal conflict and well-being. Unfortunately, no support for this hypothesis using the focal participant ratings was found. However, reported in Table 10 was a significant two-way interaction between interpersonal conflict with co-workers and perceived control in predicting happiness levels as rated by significant others (β = .26, p < .05). As predicted, conflict was related to lower happiness score when employees perceived low control (β = -.19, p < .05), whereas it had a marginally positive relationship with happiness when perceived control was high (β = .32, p = .07). Thus, this pattern supported Hypothesis 17.

All other hypotheses regarding interactions concerned three-way interactions. Hypothesis 34 proposed a three-way interaction between interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping on employee well-being. Specifically, it was expected that when problem-focused coping is high, interpersonal conflict with supervisor will have a stronger relationship with well-being for those who reported low versus high perceived control. Support for this hypothesized

effect was found for self-rated depression and job frustration, and other-rated anger. In particular, a significant three-way interaction emerged between interpersonal conflict with supervisors, perceived control over the conflict, and problem-focused coping (β = -.21, p < .01) for depression levels (see Table 5) such that high perceived control buffered the relationship between conflict and depression when high levels of problem-focused coping was used. Simple slope tests (Cohen et al., 2003) indicated that interpersonal conflict with supervisors has a nonsignificant relationship with depression for participants who were high in both problem-focused coping and control related to this stressor (β = .11, *ns*). This is in line with expectations. Furthermore, participants who reported any other combination of problem-focused coping and control for this stressor had a significant, positive regression line slopes between conflict and depression (.32 < βs <.52, *ps* < .001). Significance testing of line slopes (Dawson & Richter, 2006) was conducted to demonstrate the relative difference between regression lines. As specified in the original hypotheses, the effect of perceived control given high problem-focused coping on the strength of the conflict-well-being relationship was the core of the three-way interaction hypothesis. Thus, it is expected that when problem-focused coping was high, conflict with supervisors should have a stronger, positive relationship with depression for those who perceived low versus high control over such conflict. This pattern was supported as these two slopes were marginally significantly different (t = -1.77, p = .076), suggesting that when employees adopted problem-focused coping, high perceived control over the conflict with supervisors buffered against an increase in depression symptoms at work. Figure 2 illustrated the three-way interaction effect.

Furthermore, Table 6 reported a significant three-way interaction between interpersonal conflict with supervisors, perceived control over that conflict, and problem-focused coping for job frustration levels (β = -.18, p < .05). Consistent with Hypothesis 34, a match between high perceived control and high levels of problem-focused coping is most advantageous. Simple slope tests indicated that interpersonal conflict with supervisors has a nonsignificant relationship with job frustration for participants who were high in both problem-focused coping and control related to this stressor (β = .001, *ns*), as expected. Furthermore, participants who reported any other combination of problem-focused coping and control had a significant, positive regression line slopes between conflict with supervisors and job frustration (.26 < βs <.38, *ps* < .02). Significance testing of line slopes demonstrated that when problem-focused coping was high, conflict with supervisors should have a stronger, positive relationship with job frustration for those who perceived low versus high control over such conflict. This pattern was supported as these two slopes were significantly different (t = -2.12, p < .05). As illustrated in Figure 3, high perceived control only buffered relations between interpersonal conflict with supervisors and job frustration when high problem-focused coping strategies were also employed

Lastly, a marginally significant three-way interaction between conflict with supervisors, perceived control, and problem-focused coping was found when secondary source reports of anger were used as the dependent variable (β = -.18, p = .07). Results are presented in Table 11. However, while the interaction term approached significance, simple slope tests demonstrated that that no combination of problem-focused coping and control resulted in a regression line slope that was significantly different from zero and

no statistically significant differences between slopes were found. A graphical representation of the interaction can be found in Figure 7. In sum, partial support for Hypothesis 34 was obtained.

No significant three way interactions emerged with interpersonal conflict with co-workers, perceived control, and problem-focused coping when focal participant ratings or secondary source ratings were used. Thus, no support for Hypothesis 35 was found.

Hypothesis 36 proposed a three-way interaction between interpersonal conflict with supervisors, control, and emotion-focused coping in the prediction of well-being outcomes. More specifically, when employees used high levels of emotion-focused coping, conflict would have a stronger relationship with well-being for those who perceived high vs. low control. In other words, when high levels of emotion-focused coping were used, low control would mitigate the stressor-strain relationship. Support for this hypothesized effect was found for self-rated depression, job satisfaction, and physical symptoms as well as other-rated job satisfaction and anxiety. In particular, a significant three-way interaction emerged between interpersonal conflict with supervisor, perceived control over that conflict, and use of emotional expression in coping ($\beta = .16$, $p < .05$) for depression levels. Please see Table 7. Simple slope tests indicated that interpersonal conflict with supervisors has a significant, positive relationship with depression for all combinations of emotion-focused coping and control ($.29 < \beta s < .62$, $ps < .03$). However, a comparison of slopes indicated that when emotional expression coping is high, interpersonal conflict with supervisors had a stronger relationship with depression ($t = 2.18$, $p < .05$) when employees perceived high versus low control, as expected. As shown in Figure 4, high perceived control did not buffer against an increase in depression

symptoms associated with conflict with supervisors at work when high emotion expression coping is used.

Additionally, as reported in Table 8, a three-way interaction between interpersonal conflict with supervisors, perceived control, and emotional expression coping (β = -.23, p < .01) was found to predict job satisfaction. Simple slope tests indicated that interpersonal conflict with supervisors has a significant, positive relationship with job satisfaction when high levels of emotion-focused coping is paired with high levels of control (β = .-.39, p < .01), but not with low control (β = -.02, *ns*). Furthermore, conflict with supervisor has a significant, negative relationship with job satisfaction when low levels of emotion-focused coping is used in combination with low perceived control (β = -.22, p < .01), but not with high control (β = -.08, *ns*). A comparison of slopes indicated that when emotional expression coping is high, high levels of perceived control result in the strongest relationship between interpersonal conflict with supervisors and job satisfaction (t = -1.69, p = .09). In other words, when high emotion expression coping is employed and a high level of control was perceived, the relationship between conflict with supervisors and job satisfaction was negative, but the relationship was not significant with low levels of control, as shown in Figure 5. This pattern was in line with expectations.

Similarly, a significant three-way interaction was found for interpersonal conflict with supervisors, perceived control over that conflict, and use of emotional expression in coping (β = .16, p < .05) for reports of physical symptoms, as shown in Table 9. Interpretation of the pattern in Figure 6 suggests that, as expected, high perceived control did not buffer the positive relationship between conflict with supervisors and physical

symptoms when high emotion expression coping was used. The simple slope tests indicated that interpersonal conflict with supervisors has a significant, positive relationship with physical symptoms when high levels of emotion-focused coping is paired with high levels of control (β = .36, p < .01), but not with low control (β = .02, *ns*). Furthermore, conflict with supervisors has a significant, positive relationship with physical symptoms when low levels of emotion-focused coping is used in combination with low perceived control (β = .18, p < .05), but not with high control (β = .14, *ns*). A comparison of slopes was conducted to specifically test the hypothesis when high levels of emotion-focused coping strategies are used, high levels of control will enhance the relationship between conflict and physical symptoms; however, no significant differences between slopes emerged.

In regards to the findings with secondary source reports, a marginally significant three-way interaction emerged between interpersonal conflict with supervisor, perceived control over that conflict, and use of emotional expression in coping (β = -.21, p = .06) for job satisfaction levels, as shown in Table 8. Simple slope tests indicated that interpersonal conflict with supervisors has a significant, negative relationship with job satisfaction when high levels of emotion-focused coping are used with either high levels of control (β = -.76, p < .001) or low levels of control (β = -.31, p < .05), but slopes did not differ from zero when low emotion-focused coping was used (-.07 < βs < -.09, *ns*). However, a comparison of slopes was conducted to specifically test the hypothesis when high levels of emotion-focused coping strategies are used, high levels of control will result in a greater detriment to job satisfaction than with low levels of control. In fact, as predicted, a significant difference was found between the slopes (t = -2.01, p < .05)

suggesting that a combination of high emotional expression and high perceived control exacerbates the relationship between conflict and job satisfaction. Please see Figure 8.

Furthermore, a significant three-way interaction emerged between interpersonal conflict with supervisors, perceived control over that conflict, and use of emotional processing in coping (β = -.25, p < .01) for secondary source reports of anxiety levels, as presented in Table 12. Simple slope tests unexpectedly indicated that interpersonal conflict with supervisors has a significant, positive relationship with anxiety when low levels of emotion-focused coping are used with high levels of control (β = .38, p < .05). None of the other combinations of emotion-focused coping and control resulted in regression lines different from zero (.12 < βs < .23, *ns).* To further test the hypothesis than given high levels of emotion-focused coping, high levels of control will result in a stronger relationship between conflict and anxiety than low levels of control, a specific comparison of the relative difference between regression lines when high emotion-focused coping was used was conducted. As shown in Figure 9, no significant difference was found between these slopes, suggesting that given high levels of emotional processing, the amount of perceived control does not buffer nor enhance the effects of conflict with supervisors on anxiety. Taken together, only partial support was found for Hypothesis 36.

No significant three-way interactions emerged with interpersonal conflict with co-workers, perceived control, and emotion-focused coping. Thus, no support for Hypothesis 37 was found.

Chapter Four

Discussion

This study was designed to extend previous occupational stress research that has examined control as a moderator of the stressor-strain relationship. Specifically, it was hypothesized that conflict at work would be related to various well-being outcomes, and these relationships would be moderated by perceived control over the conflict and coping strategy (problem-focused coping or emotion-focused coping). A combination of high perceived control and high problem-focused coping as well as a combination of low perceived control and high emotion-focused coping was expected to attenuate the conflict-well-being relationship. A summary of all hypotheses and results are presented in Tables 3 and 4 indicating which hypotheses received support using both focal participant and secondary source reports of well-being. A thorough discussion of results will continue below.

It is important to note that there was strong agreement between the focal participants and secondary sources on well-being levels. As shown in Table 2, the means and standard deviations for the measures of well-being are extremely similar and correlations are high. This suggests that significant others and friends may be reliable sources of psychological well-being outcomes. However, some results differed depending on the source of the reports.

Main Effects

Overall, there was strong evidence for the main effects of interpersonal conflict at work on well-being outcomes for both psychological and physical well-being. Interestingly, the strength of the relationships was consistently higher for conflict with supervisors. This finding was contrary to Frone's (2000) results, which suggested that conflict with co-workers had stronger effects on employee well-being than conflict with supervisors. Thus, more work is needed to determine why differential effects may arise depending on the source of conflict.

In addition, there was consistent evidence for the main effects of control over interpersonal conflict at work on well-being outcomes. Interestingly, control may be more strongly tied to psychological well-being than physical well-being as null relationships were found for the physical components of well-being measured—physical symptoms and sleep quality. When secondary source reports of well-being were considered, no main effects of control were present. This is likely due to a relatively smaller effect of control perceptions on well-being than the effect of conflict on well-being and thus, the smaller sample of secondary source reports did not lend enough power for correlations to reach significance. This finding was similar to a study of conflict between married couples, which found control was more strongly related to psychological well-being than physical well-being (King & Emmons, 1991).

Similarly, there was substantial evidence of the main effect of problem-focused coping on psychological, but not physical well-being. However, there was minimal evidence for a main effect of emotion-focused coping on well-being. Neither emotional expression nor emotional processing strategies to cope with conflict were related to any

measure of well-being when either focal participant ratings or secondary source ratings were considered. The exception to this was emotional processing coping for both types of conflict being negatively related to depression and positively related to happiness levels as rated by focal participants. While this finding is one piece of evidence to suggest that processing, understanding, and validating one's emotions may be a more effective form of emotion-focused coping than expression or letting feelings out (at least regarding the experience of depressive symptoms and general levels of happiness), interactions between conflict, control, and coping suggest the opposite. The main effects of coping were consistent with previous research in that more work has supported the efficacy of problem-focused coping in terms of improving mental health outcomes (Compas et al., 2001; Penley et al., 2002), but the efficacy of emotion-focused coping has not been as consistently reported.

Two-way Interactions

Unexpectedly, there was little evidence that the interaction between conflict experiences and perceived control over those conflicts predict well-being, as only one two-way interaction emerged. When perceived control was high, conflict had a marginal, positive relationship with happiness levels, but when perceived control was low conflict had a negative relationship with happiness. This finding is partially in line with the strain hypothesis of the JDC model. It is worth noting that this finding may also simply reflect an inflated experiment-wide Type One error given no other two-way interactions emerged. However, these findings are not necessarily unusual as several other studies have also found non-significant interactions between demand and control (i.e. Holman & Wall, 2002; Taris, Schreurs, & Van Iersel-Van Silfhout, 2001). In fact, a review by Van

der Doef and Maes (1998) found that control served as a buffer against the detrimental effects of stressors in only half of the studies reviewed. Because only one two-way interaction emerged in this study, the importance of considering both control and coping in relation to workplace stressors is underscored. The main purpose of this study was to explore the possibility that the reason results are divergent across studies is because control and coping are not included and considered within the same model. Thus, the results of the three-way interactions are the core contribution of this study.

Three-way Interactions

Problem-focused coping. The results of this study partially supported the predicted three-way interaction between stressors, control, and coping. For example, when problem-focused coping was high, control moderated the relation between interpersonal conflict with supervisors and psychological well-being, as predicted. High perceived control served to mitigate increases in mental anguish (depression and job frustration) when high levels of problem-focused coping were used. In other words, interpersonal conflict with supervisors had a stronger relationship with depression and job frustration for those who reported low versus high perceived control. Thus, high problem-focused coping and high control is most likely to result in a mitigated relationship between conflict and depression and job frustration. Any other combination of problem-focused coping and control (high problem-focused coping, but low perceived control, low problem-focused coping with either high or low control) provided no protection to the detrimental effects of conflict with supervisor on depression or job frustration.

Emotion-focused coping. In terms of emotion-focused coping, it was hypothesized that when employees typically used high levels of emotion-focused coping, conflict would have a stronger impact on well-being for those who perceived high vs. low control. In other words, *low* control would mitigate the relationship between conflict and well-being when high levels of emotion-focused coping were used. More support for this hypothesized effect was found for emotional expression coping than for emotional processing coping.

In particular, emotional expression coping is most effective for mitigating the detrimental effects of conflict on depressive symptoms when control is low rather than high. These results suggest that a match between a sense of little control over the conflict and efforts to manage internal states rather than external states is adaptive. When little control is perceived, energy is best spent on managing internal conditions rather than external.

Similarly, employees were better off in terms of job satisfaction when low rather than high control was paired with high levels of emotional expression coping. This three-way interaction is unique in that it received support from both focal participant reports and secondary source reports. This suggests that control is unlikely to mitigate the detrimental association between conflict and job satisfaction if an employee does not use coping strategies that capitalize on the control (i.e., not taking action to manage the situation). However, when an employee uses low emotional expression coping to deal with conflict, high levels of control will extinguish the negative relationship between conflict and job satisfaction.

Interestingly, the pattern of the above described results with emotional expression coping held not only for psychological well-being outcomes, but also for physical well-being. In fact, conflict was not significantly related to physical symptoms when individuals reported high use of high emotion-focused coping and perceived low control, whereas it was significantly related to physical symptoms when employees used high emotion-focused coping and perceived high control. Thus, the aches, pains, and other physical manifestations of the stress resulting from conflict may be avoided in situations where an employee feels low control over the conflict if specific efforts are made to let feelings out and release emotion. Furthermore, the results demonstrated a benefit to physical well-being with a combination of low emotional expression coping and high control but not with low control. In the case that conflict arises and an employee is not going to expend efforts on emotional expression, control may determine the strength of the relationship between conflict and physical well-being.

Lastly, one significant three-way interaction emerged for the emotional processing dimension of emotion-focused coping with anxiety levels. The pattern of results is contrary to expectations. Interpersonal conflict with supervisors had a significant, positive relationship with anxiety when low levels of emotion-focused coping were used with high levels of control, but conflict had no significant relationship with anxiety under any other combinations of emotion-focused coping and control. However, when compared, no combination of emotion-focused coping and control was a stronger predictor of anxiety than another. This divergent result does indicate that emotional processing may function differently from emotional expression as a coping strategy. Additional discussion of this possibility will follow.

Theoretical Implications

These findings carry theoretical importance pertaining to control and coping in relation to occupational stress in various ways. First, these data support and extend the Job Demands Control (JDC) Model proposed by Karasek (1979). The results are congruent with the strain hypothesis which suggests that there is an interactive process between demands and control which in turn predicts well-being. However, these results implore an additional consideration, that being of coping strategy used. Specifically, this study found that when considered alone, perceived control over the stressor did not consistently moderate the relationship between conflict and well-being. However, when coping is introduced as an additional moderator, substantial predictive value can be extracted from the demand and control factors, thus highlighting the importance of including coping in models of stress and well-being. This proposition is unique to other efforts exploring the stressor-strain relationship and suggests that it is a simultaneous consideration of the stressor, control, and coping that interact to predict well-being outcomes. Indeed, it has been shown rather consistently that the congruence between the nature of the stressor and the coping methods used determines efficacy in coping (Havlovic & Keenan, 1995; Terry, Callan, & Sartori, 1996; Jex et al., 2001). But, this study suggests that considering all three factors together provides a distinctive opportunity for predicting both psychological and physical well-being.

Second, this study advances the literature focused on coping in particular. As mentioned earlier, research tends to support the efficacy of problem-focused coping in terms of improving physical and mental health outcomes (Compas et al., 2001; Penley et al., 2002) and has reported negative relationships between problem-focused coping and

the experience of various types of dissatisfaction and work-related strain (Aryee, Luk, Leung, & Lo, 1999; Lapierre & Allen, 2006). However, the efficacy of emotion-focused coping has been less clear, with some work demonstrating the negative effects of emotion-focused coping (Gunthert et al., 2002; Park et al., 2004) and some work highlighting the benefits (Yamasaki et al., 2006; Yamasaki & Uchida, 2006) or the null effects (Dunkley et al., 2003). This study provides some evidence for the idea that perceived control over the stressor may in fact help disentangle these discrepancies.

The concept that "congruence" is an important component to the stressor-strain relationship is not a novel one (e.g. Jex et al., 2001). Mainly, this is the notion that coping effectiveness may depend on the combination of the stressor and the coping method used. This study highlights the importance of the stressor, perceived control, *and* the coping method used. Specifically, employees with particular tendencies for combinations of coping and control (viz., typically using high problem-focused coping and perceiving high control or typically using high emotion-focused coping and perceiving low control or typically using low emotion-focused coping and perceiving high control) were more likely to fare well in conflict situations. Importantly, these findings were not specific to one type of reporting source and thus concern about common source bias being solely responsible for findings is minimized.

Additionally, the importance of congruence between a stressor, control, and coping strategy is further highlighted by the contrasting results dependent on type of stressor. For example, while strong main effects for interpersonal conflict with supervisors and for interpersonal conflict with co-workers were present, it was only the specific case of interpersonal conflict with supervisors which demonstrated the

interactive process between control and coping in determining the stressor-strain relationship. This may be because conflict with supervisors represents a more salient threat to an employee's resources and well-being as prolonged conflict with supervisors may damage one's standing in their employment setting. The match between control and coping for conflict with supervisors may be more influential on well-being than with conflict with co-workers. However, the more general point is that in order to fully appreciate the interactive processes between control and coping, research should be attentive to the specific stressor or stressors employees are experiencing.

Lastly, this study also attempted to further refine the general understanding of emotion-focused coping and contribute to efforts to remove the cloud of confusion over the benefits or detriments of emotion-focused coping with occupational stressors. All interactions between conflict, control, and emotion-focused coping emerged with emotional expression strategies expect for one which emerged with emotional processing strategies. First of all, this indicates that emotional expression may be a better tool for employees to use when dealing with interpersonal conflict with supervisors than emotional processing. Specifically, this means that letting feelings out and expressing the status of one's emotions may facilitate coping more than internal processing and understanding one's feelings. In fact, support for this idea has been demonstrated in clinical studies which have shown emotional expression to be an effective strategy for dealing with illness (Spiegel, Bloom, Kraemer, & Gottheil, 1981; Spiegel, Bloom, & Yalom, 1981) and that it may have beneficial relationships with distress, vigor, and subjective health, whereas emotional processing may in fact increase distress levels (Stanton, Danoff-Burg, Cameron, Bishop, Collins, Kirk et al., 2000).

One reason emotional expression may be a more effective coping strategy in an occupational context pertains to the nature of the coping style. Emotional expression is an outward emotion-focused coping process, while emotional processing in an inward emotion-focused coping process. This may be important in several ways. First, expressing emotions may lead to enhanced communication about the conflict. If an individual expresses themselves, potential misunderstandings may be uncovered, empathy may be elicited, and solutions to sources of conflict may arise. In fact, emotional expression may be a pathway to conflict resolution and may directly reduce the amount of the stressor present as suggested in some other research (e.g. Shimazu, Shimazu, & Odara, 2005). Another pathway by which emotional expression may be more effective is through enhancing social support. Discharging distressing emotions, receiving encouragement, and generating positive emotions are considered part of social support (Shimazu, Okada, Sakamoto, & Miura, 2003), which may in turn help individuals sustain coping efforts over a long time. High levels of emotional expression or discharge of emotions may lead to increased social support which may also improve the general effectiveness of emotion-focused coping (Daniels, 1999). Furthermore, expressing emotions may produce opportunities for receiving advice which could foster self-efficacy (Pierce et al., 1996) for dealing with the conflict. Thus, emotional expression may be a mechanism by which components of social support are elicited, explaining why emotional expression, but not the internally confined process of emotional processing, interacts with control to predict well-being. In sum, emotional expression may function differently with control than emotional processing. This demonstrates the need for future work to continue use more refined sub-dimensions of emotion-focused coping and tease

apart the specific components of emotion-focused coping that may be effective. Furthermore, additional work is needed to explore the potential pathways by which emotional expression may provide benefit in conflict management or resolution (particularly through social support).

Practical Implications

Practical implications of this study are worth considering. The main effects of this study point to the already well-documented detrimental effects of interpersonal conflict at work and employee well-being suggesting managers should make efforts to prevent and reduce the impact of conflicts. This could be done through a variety of ways such as thorough, clear, and documented policies and procedures, detailed job descriptions, fair treatment of employees, clarity of decision making, and sound conflict resolution resources. Furthermore, control over conflicts may play a role in mitigating the detrimental effects of conflict when it does occur. Therefore, fostering a sense of control in employees' relationships with each other and supervisors may increase control perceptions should a conflict arise. Practical steps organizations may take include providing an environment where employees have predictable and consistent interaction with each other and the management as well as adequate and available access to one another (i.e. encouraging regular checking of e-mails, open-door policies, and participation in decision making).

Furthermore, when the interactive effects of control and coping were considered, both types of coping strategies, and particularly the emotional expression component of emotion-focused coping, predicted various well-being dimensions given certain levels of control. Thus, from practical standpoint, a blanket recommendation cannot be provided in

terms of suggesting a particular coping style be encouraged or trained for in organizations. However, organizations might consider training employees in both types of coping strategies in addition to training them to be aware of when their level of control over situations is suited for the use of one strategy over the other. Results generally suggest that if an employee feels a high level of control over a conflict with supervisors, then taking action to resolve the conflict with problem-focused coping is likely the best option, whereas if low control over the conflict is perceived, expressing emotions, letting out feelings, and discharging thoughts about the situation may be beneficial. However, caution should be recommended as training for high levels of emotional expression may on itself become a demand (e.g., emotional labor). Future research should explore the impact of different types of emotion-focused coping on workplace outcomes.

Overall, these findings suggest that the success of coping efforts hinges on the combination of the nature of the stressor (conflict with supervisors vs. with a co-worker), perceptions of control over that stressor (high or low control), and coping strategy used (problem-focused or emotion-focused coping). This may explain at least to a certain extent why previous efforts to document the moderating effects of coping have been inconsistent, especially pertaining to emotion-focused coping. It should be emphasized that the interaction between control and coping is complex and this study lends only one piece of evidence toward a full understanding of this phenomenon.

Limitations

While this study may have potentially important contributions to occupational stress research, clear limitation exist. The most unfortunate of these limitations is the small amount of variance accounted for by the statistically significant three-way

interaction terms. Given the small amount of variance indeed explained by these terms, a justified argument could be made that the practical value of these findings is negligible. While this concern is recognized, some research on moderator analysis suggests the even a very small amount of variance accounted for may be important (Evans, 1985). In fact, the effects may translate into meaningful differences on the measures of well-being. For example, the difference between even a small change in a scale score on depression or job satisfaction could represent arguably huge meaning for individuals and organizations that employ them.

Also, it is important to discuss the limits of the cross-sectional design. The use of secondary source reports (and high agreement among sources) tempers disputes of common method variance fully accounting for the relationships seen. However, a snapshot of well-being may not fully capture the effects of conflict on well-being, especially conflict that may have occurred at a distant time from participation in this study. Furthermore, although coping was measured in terms of how often an individual uses a certain strategy given the stressor at hand, coping is likely a process that unfolds over time and evolves depending on effectiveness (Edwards, 1992). Thus, cross-sectional study of this construct may not be optimal. Future research should strive to use longitudinal or experience sampling designs.

The measures used in this study are not without flaw. First of all, as indicated, several of the scales were adapted for the specific purposes of this study. Because of this, it can only be assumed that construct validity has been preserved. However, all measures did demonstrate adequate internal consistency reliability, with the exception of sleep quality and anxiety. It is unclear why these scales had lower internal consistency

reliability as these were not modified in any way from the original established scales. Furthermore, the measure of emotion-focused coping is limited to two specific dimensions, rather than a broad set of emotion-focused coping methods (i.e. denial, religion, humor, etc.). The dimensions of emotional expression and emotional processing are certainly not all-encompassing of emotion-focused coping strategies. Thus conclusions regarding emotion-focused coping must be limited to these specific types of coping styles. Future research should strive to further refine the dimensions and measurement of emotion-focused coping.

Lastly, the sample size of secondary source reports is substantially smaller than the sample size of focal participants which may have caused power issues when using the secondary source reports as the dependent variable. In fact, the sample size of the focal participants is also low considering the power required to detect three-way interactions. Thus, a larger sample is needed to better explore and understand the complex relationships of interest in this study.

Conclusion

This study examined whether coping impacts the moderating effect of control on stressor-strain relations. The results suggest that the typical effect of control posited by the JDC model may depend on the type of coping strategy used to manage interpersonal conflict, particularly with supervisors. The interactive patterns suggest that the success of coping efforts hinges on the combination of the nature of the stressor, perceptions of control over that stressor, and coping strategy used. Generally, a match between high problem-focused coping and high control was beneficial, whereas a combination of high emotional expression coping (letting out feelings) and low control or low emotional

expression coping and high control was most adaptive. Support for these findings was found using both focal participant reports of well-being and secondary source reports of well-being. These findings lend some insight into why previous studies have found inconsistent results when either control or coping were considered in isolation.

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Tables

Table 1. Hypotheses.

Hypothesis 1	Interpersonal conflict with supervisors will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 2	Interpersonal conflict with co-workers will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 3	Interpersonal conflict with supervisors will have a negative relationship with (a) job satisfaction and (b) happiness.
Hypothesis 4	Interpersonal conflict with co-workers will have a negative relationship with (a) job satisfaction and (b) happiness.
Hypothesis 5	Interpersonal conflict with supervisors will have a positive relationship with physical symptoms.
Hypothesis 6	Interpersonal conflict with co-workers will have a positive relationship with physical symptoms.
Hypothesis 7	Interpersonal conflict with supervisors will have a negative relationship with sleep quality.
Hypothesis 8	Interpersonal conflict with co-workers will have a negative relationship with sleep quality.
Hypothesis 9	Perceived control over interpersonal conflict with supervisors will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 10	Perceived control over interpersonal conflict with co-workers will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 11	Perceived control over interpersonal conflict with supervisors will have a positive relationship with (a) job satisfaction and (b) happiness.
Hypothesis 12	Perceived control over interpersonal conflict with co-workers will have a positive relationship with job satisfaction and happiness.
Hypothesis 13	Perceived control over interpersonal conflict with supervisors will have a negative relationship with physical symptoms.
Hypothesis 14	Perceived control over interpersonal conflict with co-workers will have a negative relationship with physical symptoms.
Hypothesis 15	Perceived control over interpersonal conflict with supervisors will have a positive relationship with sleep quality.
Hypothesis 16	Perceived control over interpersonal conflict with co-workers will have a positive relationship with sleep quality.
Hypothesis 17	There will be a significant two-way interaction between interpersonal conflict and control on all strain outcomes. More specifically, perceived control will reduce relations between interpersonal conflict and well-being, such that the conflict-well-being relationship will be weaker when employees perceive high versus low control.
Hypothesis 18	Problem-focused coping with interpersonal conflict with supervisors will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 19	Problem-focused coping with interpersonal conflict with co-workers will have a negative relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 20	Problem-focused coping with interpersonal conflict with supervisors will have a positive relationship with (a) job satisfaction and (b) happiness.

Hypothesis 21	Problem-focused coping with interpersonal conflict with co-workers will have a positive relationship with (a) job satisfaction and (b) happiness.
Hypothesis 22	Problem-focused coping with interpersonal conflict with supervisors will have a negative relationship with physical symptoms.
Hypothesis 23	Problem-focused coping with interpersonal conflict with co-workers will have a negative relationship with physical symptoms.
Hypothesis 24	Problem-focused coping with interpersonal conflict with supervisors will have a positive relationship with sleep quality.
Hypothesis 25	Problem-focused coping with interpersonal conflict with co-workers will have a positive relationship with sleep quality.
Hypothesis 26	Emotion-focused coping with interpersonal conflict with supervisors will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 27	Emotion-focused coping with interpersonal conflict with co-workers will have a positive relationship with (a) depression, (b) anger, (c) anxiety, and (d) frustration.
Hypothesis 28	Emotion-focused coping with interpersonal conflict with supervisors will have a negative relationship with (a) job satisfaction and (b) happiness.
Hypothesis 29	Emotion-focused coping with interpersonal conflict with co-workers will have a negative relationship with (a) job satisfaction and (b) happiness.
Hypothesis 30	Emotion-focused coping with interpersonal conflict with supervisors will have a positive relationship with physical symptoms.
Hypothesis 31	Emotion-focused coping with interpersonal conflict with co-workers will have a positive relationship with physical symptoms.
Hypothesis 32	Emotion-focused coping with interpersonal conflict with supervisors will have a negative relationship with sleep quality.
Hypothesis 33	Emotion-focused coping with interpersonal conflict with co-workers will have a negative relationship with sleep quality.
Hypothesis 34	There will be a three-way interaction between interpersonal conflict with supervisors, control, and problem-focused coping in the prediction of well-being outcomes. More specifically, high perceived control will mitigate relations between interpersonal conflict with supervisor and well-being only among employees who also report use of problem-focused coping methods for this stressor.
Hypothesis 35	There will be a three-way interaction between interpersonal conflict with co-workers, control, and problem-focused coping in the prediction of well-being outcomes. More specifically, high perceived control will mitigate relations between interpersonal conflict with co-workers and well-being only among employees who also report use of problem-focused coping methods for this stressor.
Hypothesis 36	There will be a three-way interaction between interpersonal conflict with supervisor, control, and emotion-focused coping in the prediction of well-being outcomes. More specifically, low perceived control will mitigate relations between interpersonal conflict with supervisor and well-being among employees who also report use of emotion-focused coping methods for this stressor.
Hypothesis 37	There will be a three-way interaction between interpersonal conflict with co-workers, control, and emotion-focused coping in the prediction of well-being outcomes. More specifically, low perceived control will mitigate relations between interpersonal conflict with co-workers and well-being among employees who also report use of emotion-focused coping methods for this stressor.

Table 2. Correlations between Focal Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.Interpersonal Conflict with Supervisors													.15	.16*	.18*	.15	-.28***	-.14
2.Interpersonal Conflict with Co-workers	.22***												.16*	.02	.15	.12	-.15	-.05
3.Control over Conflict with Supervisors	-.36***	-.13*											.03	-.02	-.03	.03	.11	-.04
4.Control over Conflict with Co-Workers	-.09	-.26***	.41***										-.06	-.01	-.06	-.03	-.02	-.11
5.Problem-Focused Coping - Conflict with Supervisors	-.15**	-.12*	.31***	.25***									-.25**	-.08	-.21*	-.10	.24**	.06
6. Problem-Focused Coping - Conflict with Co-Workers	-.09	-.19***	.24***	.38***	.79***								-.27***	-.08	-.19*	-.08	.17*	.11
7. Emotion Expression Coping - Conflict with Supervisors	-.05	-.03	.10*	.06	.25***	.24***							-.08	.03	.03	.02	.10	.08
8. Emotion Expression Coping - Conflict with Co-Workers	.05	-.02	.01	.12*	.24***	.29***	.73***						-.08	-.06	-.02	-.01	.04	.08
9. Emotion Processing Coping - Conflict with Supervisors	-.11*	-.09	.21***	.13*	.55***	.52***	.57***	.48***					-.04	-.01	.01	.08	.06	.05
10. Emotion Processing Coping - Conflict with Co-Workers	-.03	-.07	.14**	.21***	.50***	.63***	.50***	.58***	.73***				-.05	-.04	-.07	-.01	.06	.04
11. Physical Symptoms	.19***	.23***	-.09	-.06	-.10	-.07	.07	.03	-.06	-.03								
12. Sleep Quality	.10	-.01	-.08	-.14	.09	.06	-.04	.07	-.01	.08	.51***							
13. Depression	.40***	.31***	-.30***	-.24***	-.20***	-.23***	-.01	-.01	-.11*	-.10*	.32***	.29**	.47***	.22**	.42***	.32***	-.50***	-.23**
14. Anxiety	.27***	.18***	-.19***	-.14**	-.07	-.08	.08	.09	-.02	.01	.32***	.31**	.38***	.22**	.18*	.07	-.12	-.16*
15. Anger	.38***	.32***	-.20***	-.09	-.05	-.07	.08	.06	-.01	-.01	.35***	.28**	.59***	.34***	.52***	.27***	-.40***	-.15
16. Job Frustration	.31**	.20***	-.27***	-.14**	-.17**	-.14**	-.01	-.02	-.08	-.07	.20***	.25*	.54***	.29***	.61***	.38***	-.39***	-.16*
17. Job Satisfaction	-.27***	-.19***	.28***	.28***	.23***	.22***	.02	.02	.08	.08	-.18***	-.19	-.61***	-.27***	-.48***	-.57***	.52***	.01
18. Happiness	-.15**	-.04	.09	.09	.13*	.15**	.01	-.02	.10*	.10*	-.25***	-.42***	-.39***	-.19***	-.18***	-.19***	.18***	.46***
Focal Participant Reports																		
Mean	1.24	1.19	3.44	3.78	3.66	3.58	2.70	2.80	3.24	3.30	1.84	11.97	1.60	1.76	1.93	2.57	3.91	5.46
SD	.47	.37	.88	.89	.73	.79	1.07	1.13	.94	1.00	.56	3.28	.56	.62	.77	1.06	.97	1.03
Internal Reliability	.77	.77	.80	.83	.88	.93	.92	.93	.85	.84	.82	.56	.83	.63	.88	.78	.86	.83
Secondary Source Reports																		
Mean													1.61	1.57	1.92	2.52	3.72	5.52
SD													.54	.50	.81	1.00	.96	1.03
Internal Reliability													.82	.57	.89	.74	.86	.81

Note: *p<.05; **p<.01; ***p<.001. Correlations below the diagonals are based on self-report while correlations above the diagonal are based on secondary source reports of the outcomes.

Table 3. Summary of Findings with Focal Participant Reports

	Focal Participant Reports								
Main Effects	Depression	Anxiety	Anger	Job Frustration	Job Satisfaction	Happiness	Physical Symptoms	Sleep	Table
Interpersonal Conflict with Supervisor	+	+	+	+	-	-	+	ns	
Hypotheses 1, 3, 5, & 7									
Interpersonal Conflict with Co-Workers	+	+	+	+	-	ns	+	ns	
Hypotheses 2, 4, 6, & 8									
Control over Conflict with Supervisor	-	-	-	-	+	ns	ns	ns	
Hypotheses 9, 11, 13, & 15									
Control over Conflict with Co-Worker	-	-	ns	-	+	ns	ns	ns	
Hypotheses 10, 12, 14, & 16									Table 1
PFC-Conflict with Supervisor	-	ns	ns	-	+	+	ns	ns	
Hypotheses 18, 20, 22, & 24									
PFC-Conflict with Co-Worker	-	ns	ns	-	+	+	ns	ns	
Hypotheses 19, 21, 23, & 25									
EFC-Conflict with Supervisor	-	ns	ns	ns	ns	+	ns	ns	
Hypotheses 26, 28, 30, & 32									
EFC-Conflict with Co-Worker	-	ns	ns	ns	ns	+	ns	ns	
Hypotheses 27, 29, 31, & 33									
Two-way Interactions									
Conflict with Supervisors X Control	ns	ns	ns	ns	ns	ns	ns	ns	
Conflict with Co-Workes X Control	ns	ns	ns	ns	ns	ns	ns	ns	Table 10
Hypothesis 17									
Three-way Interactions									
Conflict with Supervisors X Control X PFC	-	ns	ns	-	ns	ns	ns	ns	Tables 5 & 6
Hypothesis 34									
Conflict with Co-Workers X Control X PFC	ns	ns	ns	ns	ns	ns	ns	ns	
Hypothesis 35									
Conflict with Supervisors X Control X EFC	+	ns	ns	ns	+	ns	+	ns	Tables 7, 8, & 9
Hypothesis 36									
Conflict with Co-Workers X Control X EFC	ns	ns	ns	ns	ns	ns	ns	ns	
Hypothesis 37									

Note: "+" indicates significant positive correlations or beta-weights. "-" indicates significant negative correlations or beta-weights. Findings with marginal significance are included as significant results here. PFC = Problem-focused coping; EFC = Emotion-focused coping.

Table 4. Summary of Findings with Secondary Source Reports

	Secondary Source Reports						
Main Effects	Depression	Anxiety	Anger	Job Frustration	Job Satisfaction	Happiness	Table
Interpersonal Conflict with Supervisor							
Hypotheses 1, 3, 5, & 7	+	+	+	+	-	-	
Interpersonal Conflict with Co-Workers							
Hypotheses 2, 4, 6, & 8	+	ns	ns	ns	-	ns	
Control over Conflict with Supervisor							
Hypotheses 9, 11, 13, & 15	ns	ns	ns	ns	ns	ns	
Control over Conflict with Co-Worker							
Hypotheses 10, 12, 14, & 16	ns	ns	ns	ns	ns	ns	
PFC-Conflict with Supervisor							Table 1
Hypotheses 18, 20, 22, & 24	-	ns	-	ns	+	ns	
PFC-Conflict with Co-Worker							
Hypotheses 19, 21, 23, & 25	-	ns	-	ns	+	ns	
EFC-Conflict with Supervisor							
Hypotheses 26, 28, 30, & 32	ns	ns	ns	ns	ns	ns	
EFC-Conflict with Co-Worker							
Hypotheses 27, 29, 31, & 33	ns	ns	ns	ns	ns	ns	
Two-way Interactions							
Conflict with Supervisors X Control	ns	ns	ns	ns	ns	ns	
Conflict with Co-Workes X Control	ns	ns	ns	ns	ns	+	Table 10
Hypothesis 17							
Three-way Interactions							
Conflict with Supervisors X Control X PFC							
Hypothesis 34	ns	ns	-	ns	ns	ns	Table 11
Conflict with Co-Workers X Control X PFC							
Hypothesis 35	ns	ns	ns	ns	ns	ns	
Conflict with Supervisors X Control X EFC							
Hypothesis 36	ns	-	ns	ns	-	ns	Tables 8 & 12
Conflict with Co-Workers X Control X EFC							
Hypothesis 37	ns	ns	ns	ns	ns	ns	

Note: "+" indicates significant positive and "-" indicates significant negative correlations or beta-weights. Findings with marginal significance are included as significant results here. PFC = Problem-focused coping; EFC = Emotion-focused coping.

Table 5. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Problem-Focused Coping on Depression

	Depression		
Independent Variable	β	β	β
Step 1			
IC Sup	.32*** (.16)	.37*** (.21*)	.34*** (.20*)
Control	-.14* (.11)	-.14* (.09)	-.16** (.08)
PFC	-.11* (-.22**)	-.10 (-.22*)	-.16** (-.23*)
Step 2			
IC Sup X Control		.05 (.09)	-.05 (.08)
Control X PFC		.04 (.06)	-.07 (.05)
IC Sup X PFC		.01 (.08)	-.002 (.08)
Step 3			
IC Sup X Control X PFC			-.21** (-.04)
Δ in R^2		.004 (.01)	.02** (.001)
Overall R^2	.19 (.08)	.19 (.09)	.21 (.09)
Overall F	25.85*** (2.06**)	13.11*** (2.28*)	12.38** (1.96)

Note: N = 333 (focal) and N = 146 (secondary source). *p<.05; **p<.01; ***<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 6. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Problem-Focused Coping on Job Frustration

	Job Frustration		
Independent Variable	β	β	β
Step 1			
IC Sup	.26*** (.17)	.26*** (.17)	.24*** (.15)
Control	-.15** (.09)	-.15* (.09)	-.16** (.07)
PFC	-.08 (-.09)	-.09 (-.09)	-.13* (-.14)
Step 2			
IC Sup X Control		-.03 (.02)	-.12 (-.03)
Control X PFC		.05 (-.01)	-.05 (-.05)
IC Sup X PFC		-.07 (-.01)	-.09 (.01)
Step 3			
IC Sup X Control X PFC			-.18* (-.15)
Δ in R^2		.01 (0)	.01** (.01)
Overall R^2	.14 (.04)	.15 (.04)	.16 (.05)
Overall F	18.22*** (1.92)	9.62*** (.95)	8.99*** (1.10)

Note: N = 339 (focal) and N = 146 (secondary source). *p<.05; **p<.01; ***<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 7. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Emotional Expression Coping on Depression

	Depression		
Independent Variable	β	β	β
Step 1			
IC Sup	.03 (.04)	.02 (.03)	.06 (.005)
Control	.34*** (.18*)	.38*** (.22*)	.37*** (.22*)
EEC	-.17*** (.05)	-.17*** (.05)	-.17*** (.04)
Step 2			
IC Sup X Control		.06 (.12)	.10 (.11)
Control X EEC		.01 (.001)	.09 (-.03)
IC Sup X EEC		-.06 (-.07)	-.07 (-.06)
Step 3			
IC Sup X Control X EEC			.16* (-.08)
Δ in R^2		.01 (.02)	.01* (.003)
Overall R^2	.19 (.03)	.20 (.05)	.21 (.06)
Overall F	27.59*** (2.06)	14.30*** (2.28)	13.01*** (1.96)

Note: N = 361 (focal) and N = 157 (secondary source). *p<.05; **p<.01; ***<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 8. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Emotional Expression Coping on Job Satisfaction

	Job Satisfaction		
Independent Variable	β	β	β
Step 1			
IC Sup	-.01 (.09)	-.01 (.09)	-.07 (.03)
Control	-.20*** (-.27***)	-.17** (-.29***)	-.18** (-29***)
EEC	.21*** (.03)	.20***(.05)	.20*** (.03)
Step 2			
IC Sup X Control		.04 (-.07)	-.04 (-.12)
Control X EEC		.07 (-.14)	-.06 (-.23*)
IC Sup X EEC		.11* (-.18)	.12* (-.13)
Step 3			
IC Sup X Control X EEC			-.23** (-.21[a])
Δ in R^2		.01 (.03)	.02** (.02 [a])
Overall R^2	.11 (.08)	.12 (.11)	.14 (.14)
Overall F	15.29*** (4.67**)	8.50*** (3.21**)	8.55*** (3.31**)

Note: N = 365 (focal) and N = 156 (secondary source). [a]p=.06; *p<.05; **p<.01; ***p<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 9. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Emotional Expression Coping on Physical Symptoms

	Physical Symptoms		
Independent Variable	β	β	β
Step 1			
IC Sup	.08	.08	.12
Control	.19***	.19**	.17**
EEC	-.02	-.02	-.03
Step 2			
IC Sup X Control		-.01	.01
Control X EEC		-.01	.08
IC Sup X EEC		-.02	-.03
Step 3			
IC Sup X Control X EEC			.16*
Δ in R^2		.00	.01*
Overall R^2	.05	.05	.06
Overall F	5.49***	2.74*	3.00**

Note: N = 357 (focal). *p<.05; **p<.01; ***p<.001. Secondary sources did not report on physical symptoms.

Table 10. Regression of Interpersonal Conflict with Co-Workers and Perceived Control over the Conflict on Happiness

	Happiness	
Independent Variable	β	β
Step 1		
IC CW	-.03 (-.08)	.02 (.09)
Control	.09 (-.13)	.09[a] (-.11)
Step 2		
IC CW X Control		-.08 (.26*)
Δ in R^2		.00 (.04*)
Overall R^2	.01 (.02)	.01 (.06)
Overall F	1.73 (1.55)	1.60 (3.29*)

Note: N = 367 (focal) and N = 160 (secondary source). [a] p= .08; *p<.05; **p<.01; ***p<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 11. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Problem-Focused Coping on Anger

	Anger		
Independent Variable	β	β	β
Step 1			
IC Sup	.38*** (.16[a])	.39*** (.19*)	.38*** (.16 [a])
Control	-.07 (.05)	-.07 (.02)	-.07** (-.01)
PFC	.03 (-.18*)	.03 (-.19*)	-.01 (-.25**)
Step 2			
IC Sup X Control		-.02 (.06)	-.05 (.001)
Control X PFC		.05 (.05)	.01 (-.002)
IC Sup X PFC		-.02 (.17)	-.02 (.19*)
Step 3			
IC Sup X Control X PFC			-.08 (-.18 [a])
Δ in R^2		0 (.02)	0 (.02 [a])
Overall R^2	.17 (.06)	.17 (.09)	.17 (.11)
Overall F	22.34*** (3.16*)	11.25*** (2.14 [a])	9.75*** (2.33*)

Note: N = 334 (focal) and N = 144 (secondary source). [a] p<.10; *p<.05; **p<.01; ***<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Table 12. Regression of Interpersonal Conflict with Supervisor, Perceived Control over the Conflict, and Emotional Processing Coping on Anxiety

	Anxiety		
Independent Variable	β	β	β
Step 1			
IC Sup	.02 (.04)	.02 (.05)	.01 (-.02)
Control	.25*** (.18*)	.26*** (.22*)	-.26*** (.18*)
EPC	-.09[a] (.05)	-.10[a] (.01)	-.10[a] (-.06)
Step 2			
IC Sup X Control		.02 (.16[a])	.01 (.09)
Control X EPC		.01 (-.01)	-.01 (-.07)
IC Sup X EPC		-.09 (.06)	-.09 (.11)
Step 3			
IC Sup X Control X EPC			-.03 (-.25**)
Δ in R^2		.01 (.02)	0 (.04**)
Overall R^2	.09 (.03)	.10 (.05)	.10 (.09)
Overall F	11.19*** (1.63)	6.18*** (1.35)	5.32*** (2.20*)

Note: N = 358 (focal) and N = 156 (secondary source). [a]p<.10; *p<.05; **p<.01; ***p<.001. Values outside parentheses represent results when focal participant reports of the DV were used, values inside parentheses represent results when secondary source reports of the DV were used.

Figures

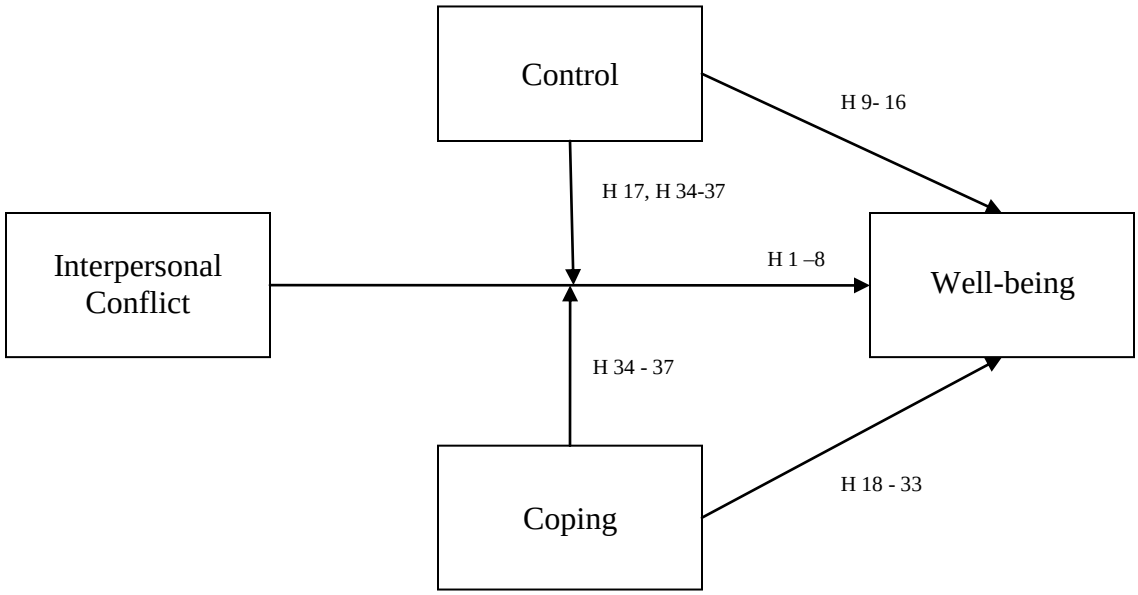

Figure 1. Model of the three-way interaction between the experience of the stressor (interpersonal conflict with supervisor or interpersonal conflict with co-worker), control, and coping strategy on well-being.

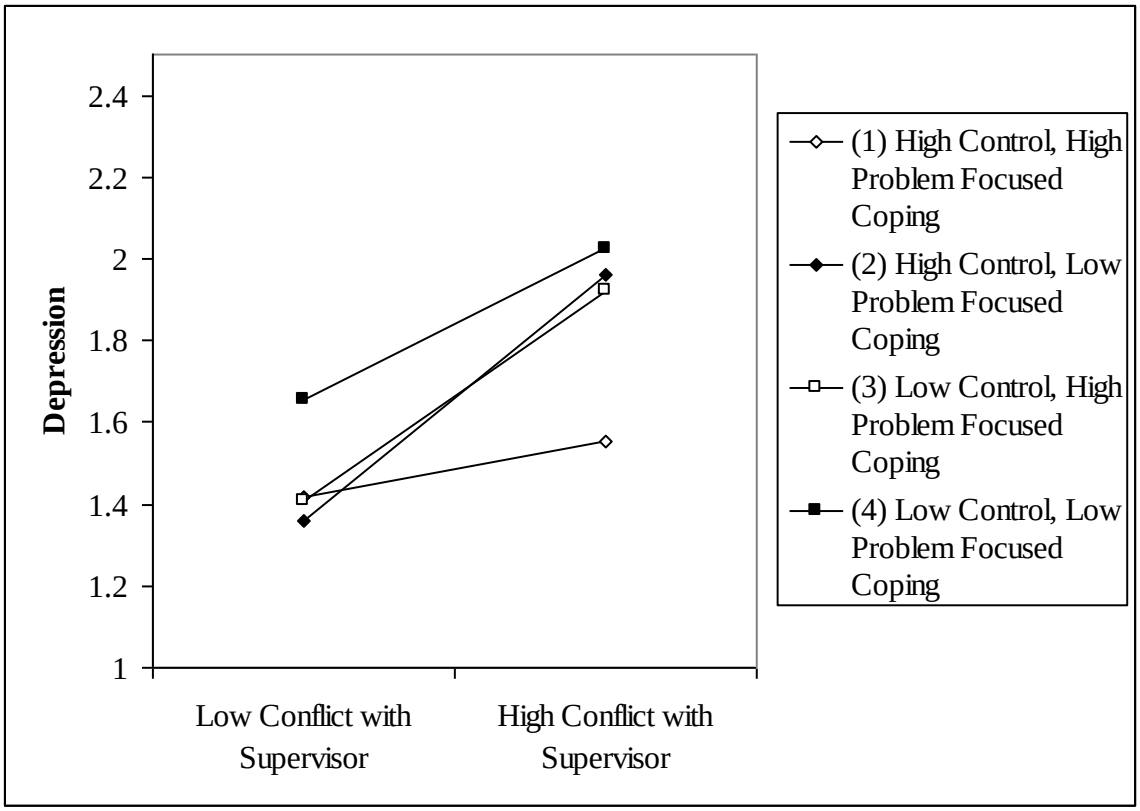

Figure 2. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping strategies on depressive symptoms as reported by the focal participant.

Note: N = 333. Three-way interaction (β = -.21, p < .01). Simple slope test between lines 1 and 3 (t = -.18, p = .076).

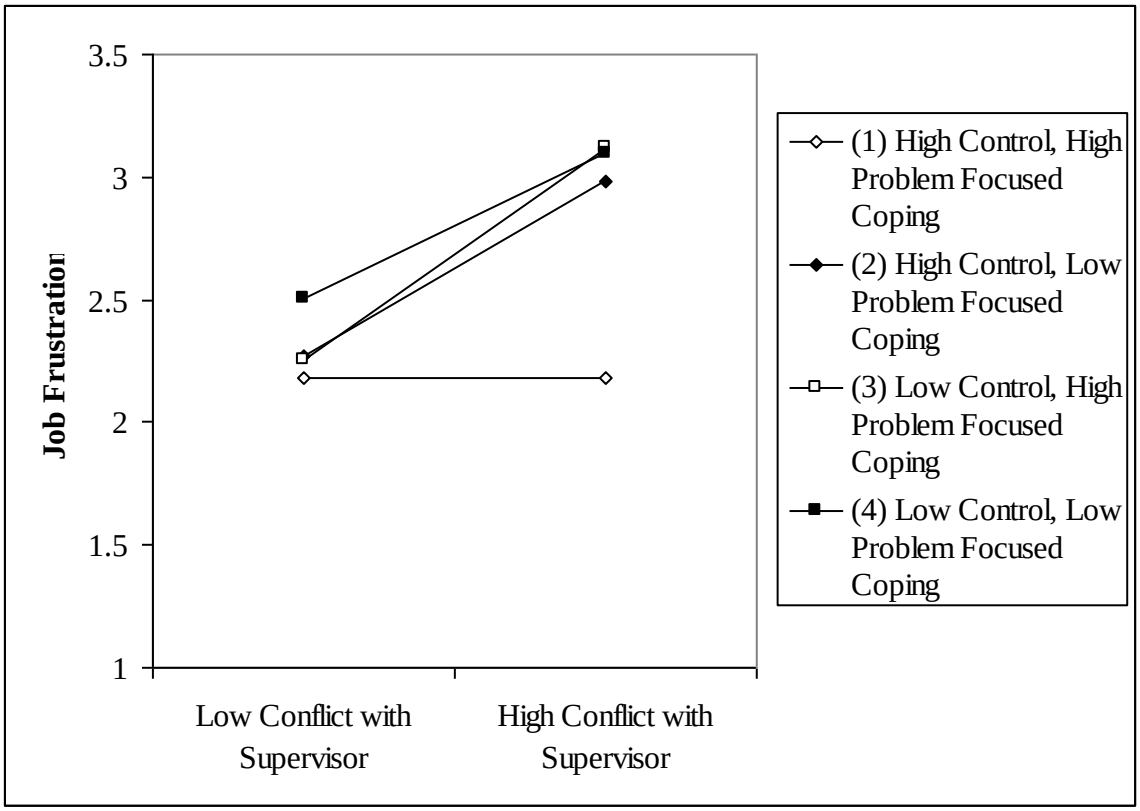

Figure 3. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping strategies on job frustration as reported by the focal participant.

Note: N = 339. Three-way interaction (β = -.18, p < .05). Simple slope test between lines 1 and 3 (t = -2.12, p < .05).

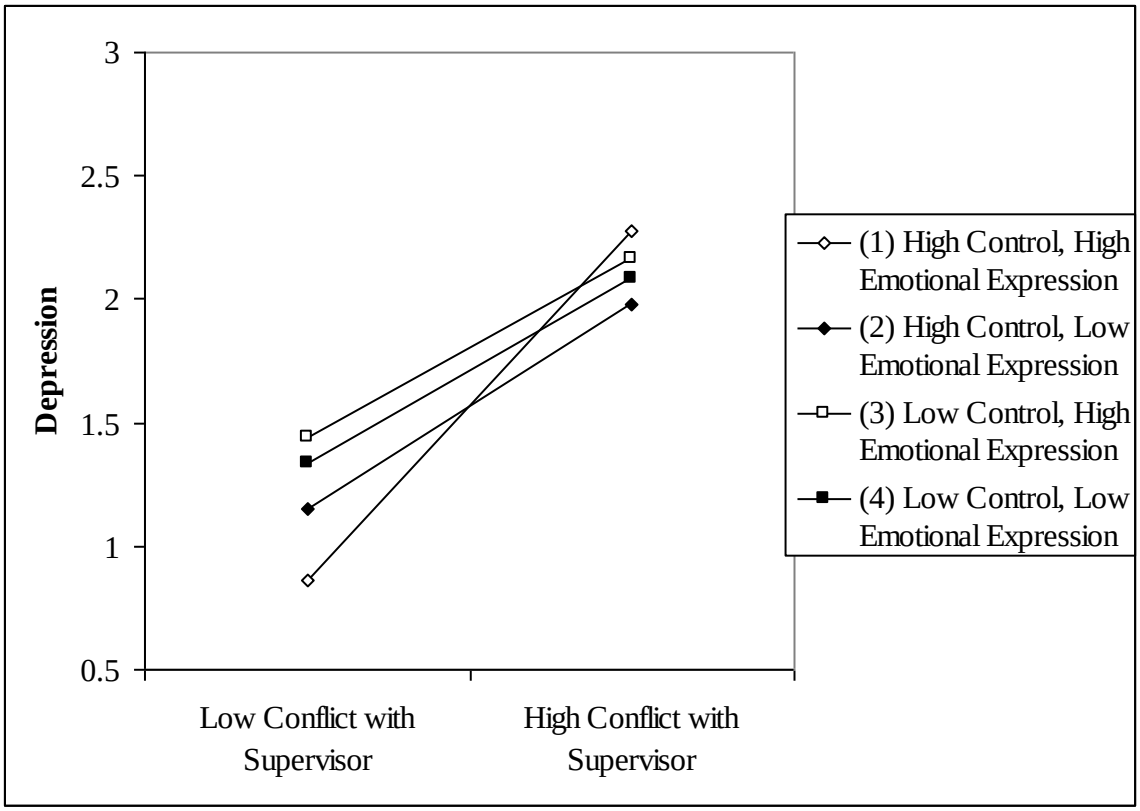

Figure 4. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and emotional expression coping strategies on depressive symptoms as reported by the focal participant.

Note: N = 339. Three-way interaction (β = .16, p < .05). Simple slope test between lines 1 and 3 (t = 2.18, p < .05).

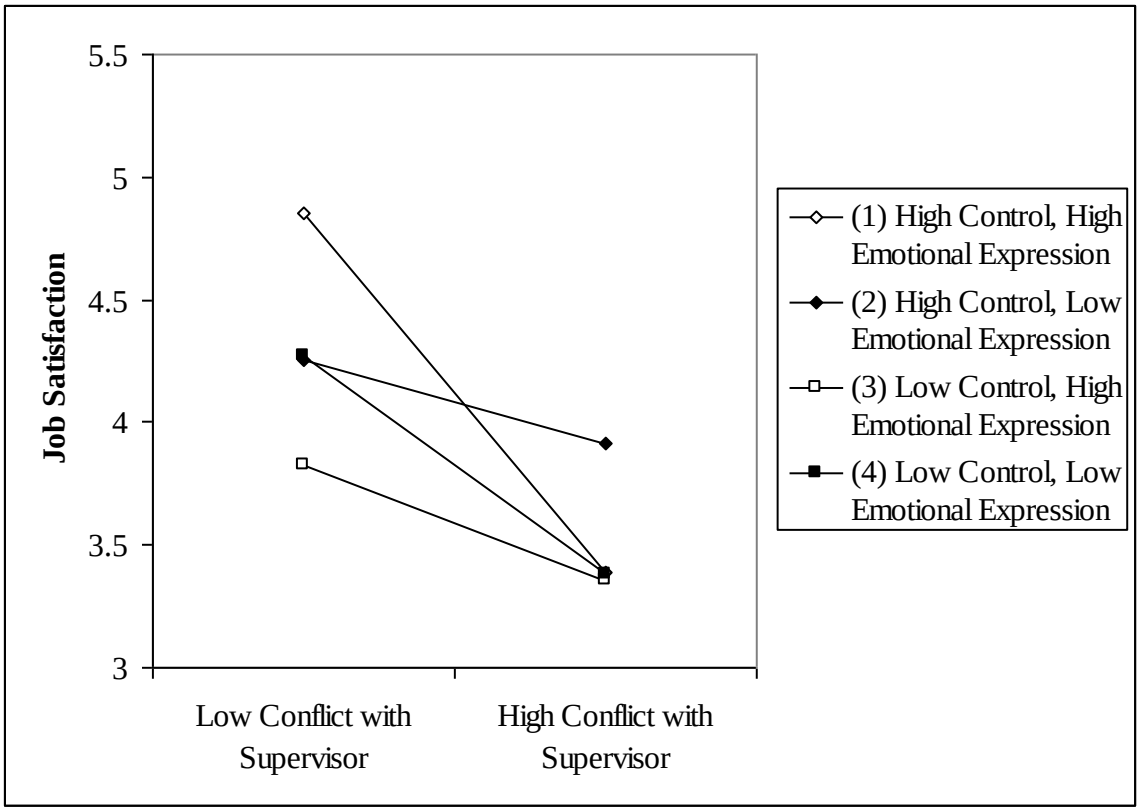

Figure 5. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and emotional expression coping strategies on job satisfaction as reported by the focal participant.

Note: N = 365. Three-way interaction (β = -.23, p < .01). Simple slope test between lines 1 and 3 (t = -.169, p = .09).

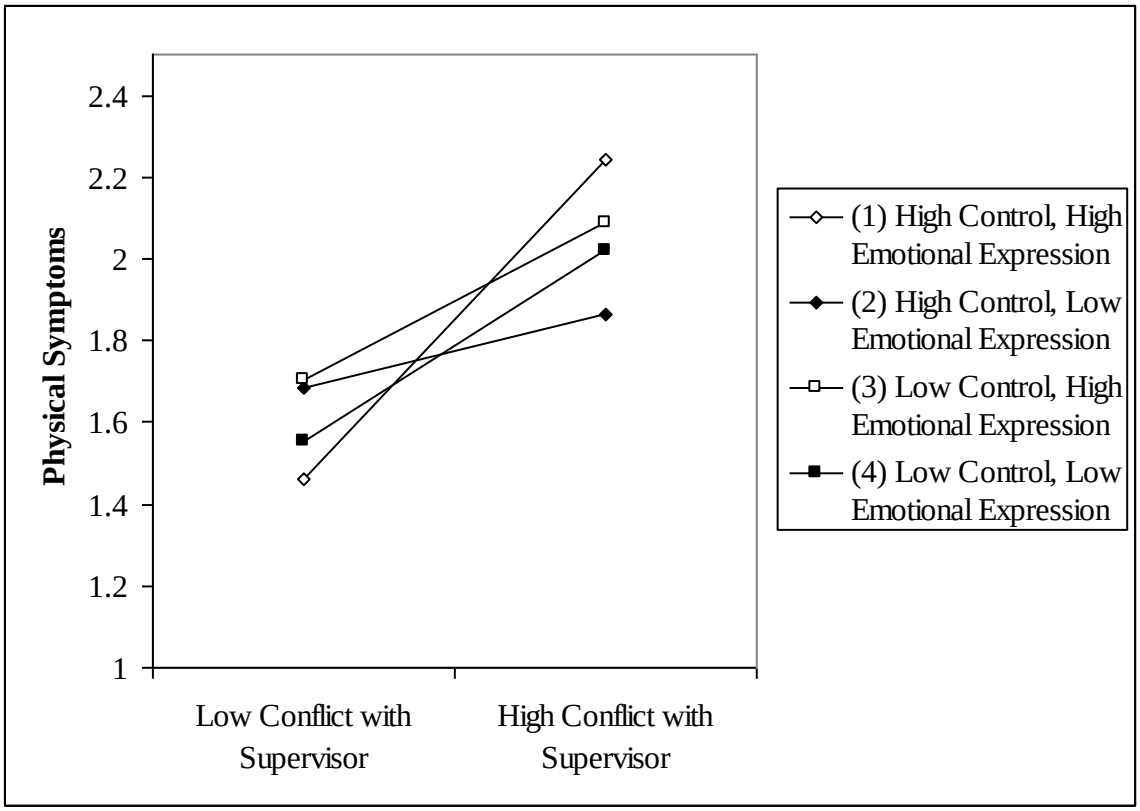

Figure 6. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and emotional expression coping strategies on physical symptoms as reported by the focal participant.

Note: N = 365. Three-way interaction (β = .16, p < .05). Simple slope test between lines 1 and 3 *ns*.

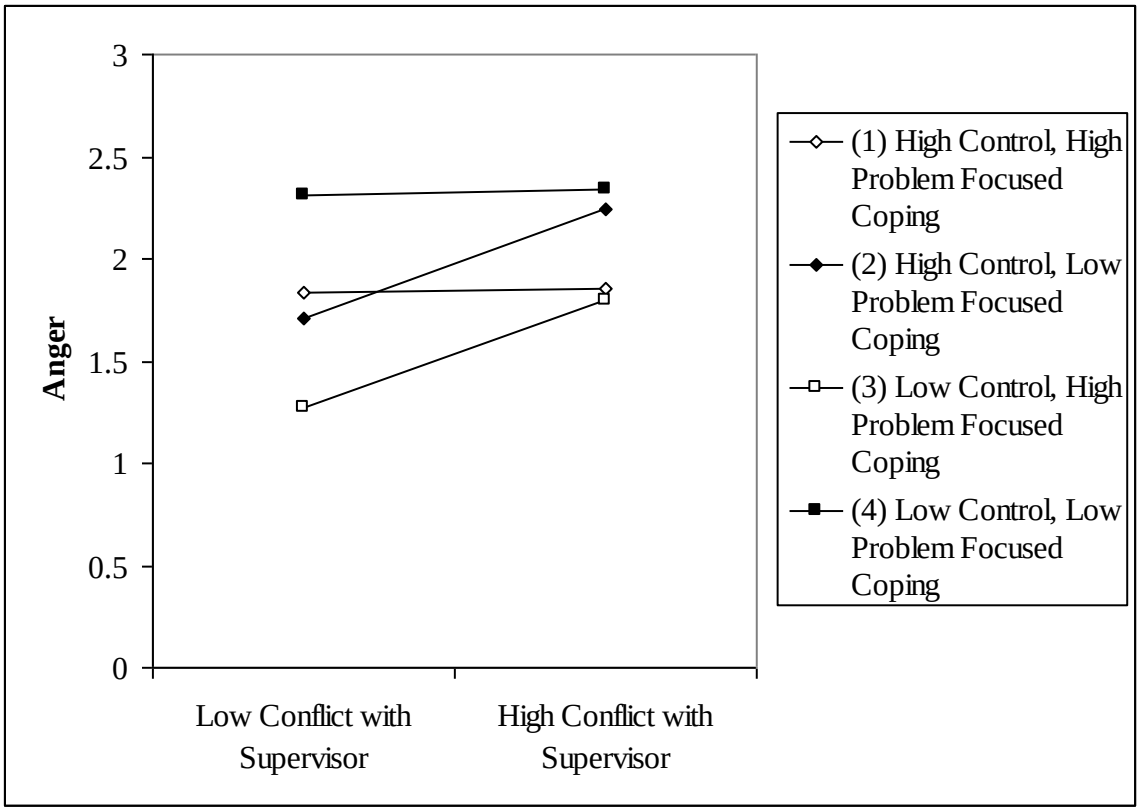

Figure 7. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping strategies on anger as reported by secondary sources.

Note: N = 143. Three-way interaction (β = -.21, p = .07). Simple slope test between lines 1 and 3 (t = -2.01, p < .05).

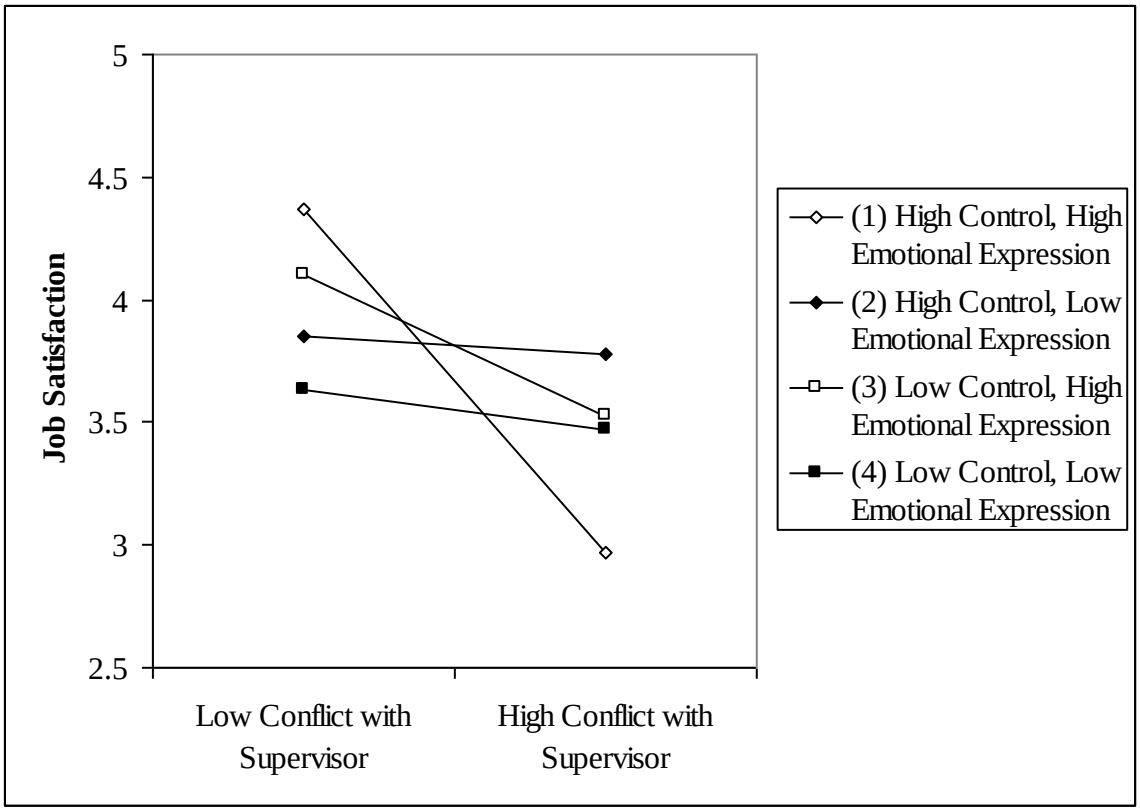

Figure 8. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping strategies on job satisfaction as reported by secondary sources.

Note: N = 156. Three-way interaction (β = -.21, p = .06). Simple slope test between lines 1 and 3 (t = -2.01, p < .05).

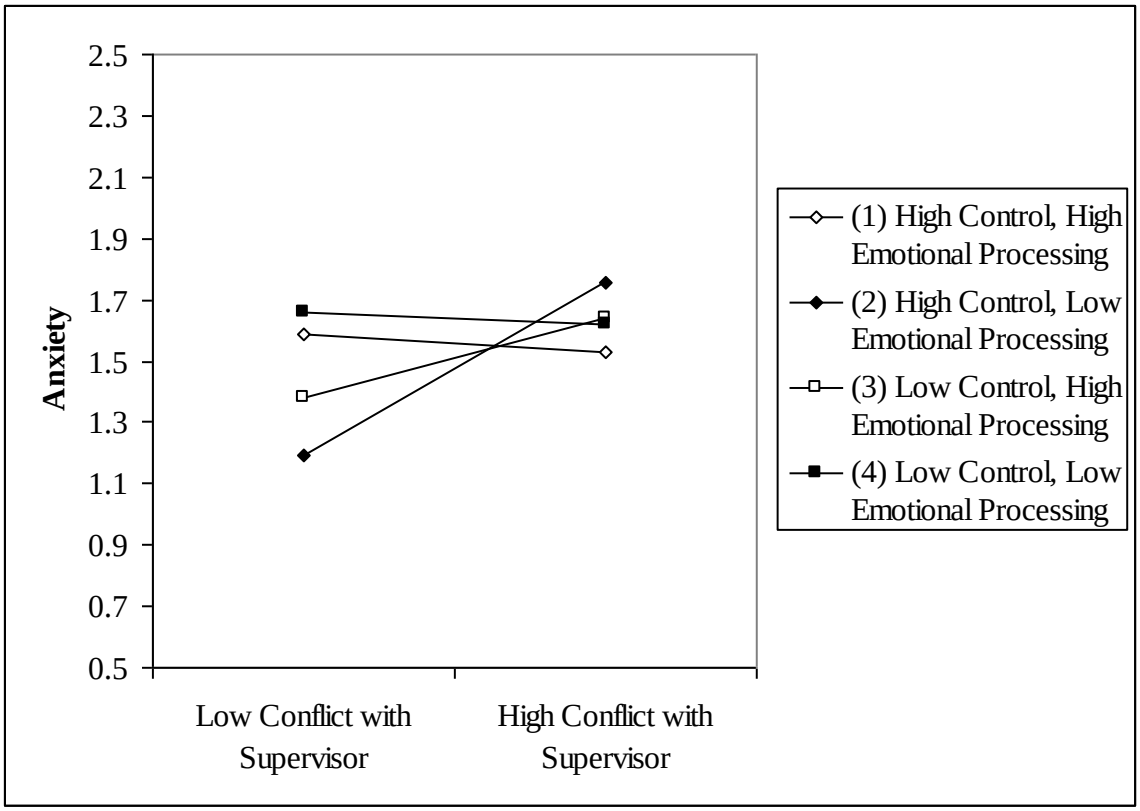

Figure 9. Graphical representation of the three-way interaction between the experience of interpersonal conflict with supervisor, perceived control over the conflict, and problem-focused coping strategies on anxiety as reported by secondary sources.

Note: $N = 156$. Three-way interaction ($\beta = -.25$, $p < .01$). Simple slope test between lines 1 and 3 *ns*.

Appendices

Appendix A

ID:

Focal Employee - Demographics

Please indicate the following:

Gender (circle one): Male Female

Age_____

Ethnicity:

Caucasian African American Asian Native American Hawaiian Native or Pacific Islander Hispanic or Latino Other

Please indicate how long you have been working at your current job:

_____ Years _____Months

Please indicate how many hours you work at your current job:

_____Hours per week

Appendix B

Instruction:
The following items are statements about ***your perceptions of your supervisor.*** Please use the scale provided to indicate how much each item describes your perceptions of your supervisor by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your situation, and circling the number that best represents your response.

Interpersonal Conflict with Supervisor

	Less than Once per Month or Never	Once or Twice per Month	Once or Twice per Week	Once or Twice per Day	Several Times per Day
1. How often do you get into arguments with your supervisor at work…….....	1	2	3	4	5
2. How often does your supervisor yell at you at work……..	1	2	3	4	5
3. How often is your supervisor rude to you at work……..…….....	1	2	3	4	5
4. How often does your supervisor do nasty things to you at work ……	1	2	3	4	5

Appendix C

Please use the scale provided to indicate how much each item describes your perceptions of your workplace or your supervisor by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your situation, and circling the number that best represents your response.

Perceived Control Specific to Interpersonal Conflict with Supervisor

	Very little	Little	A moderate amount	Much	Very much
1. How much control do you personally have over the quality of your relationship with your supervisor?.....	1	2	3	4	5
2. How much can you control when and how much you have to interact with your supervisor at work?.....	1	2	3	4	5
3. How much are the interactions between you and your supervisor predictable?.....	1	2	3	4	5
4. In general, how much overall control to do you have over resolving conflict between you and your supervisor?.....	1	2	3	4	5

Appendix D

Instruction:
The following are ways people ***react to situations of interpersonal conflict with a supervisor***. Please indicate a response from 1 to 5 for each item. Please indicate how much you engage in these types of activities when you encounter interpersonal conflict with your supervisor.

Coping with Interpersonal Conflict with Supervisor

When I have a conflict a supervisor, I ……

	Never	¼ of the time	Half of the time	¾ of the time	Always
1. Focus on the problem and see how I can solve it……	1	2	3	4	5
2. Do what I think is best ……..	1	2	3	4	5
3. Outline my priorities……	1	2	3	4	5
4. Think about how I solved similar problems……..	1	2	3	4	5
5. Determine a course of action and follow it ……...	1	2	3	4	5
6. Work to understand the situation……	1	2	3	4	5
7. Take corrective action immediately…….……	1	2	3	4	5
8. Think about the event and learn from my mistakes……	1	2	3	4	5
9. Analyze the problem before reacting……. ……...	1	2	3	4	5
10. Adjust my priorities……	1	2	3	4	5
11. Get control of the situation……..……	1	2	3	4	5
12. Make extra effort to resolve the situation……	1	2	3	4	5
13. Come up with several different solutions to the problem……..……	1	2	3	4	5
14. Use the situation to prove that I can resolve conflict..……	1	2	3	4	5
15. Try to be prepared so I can best resolve the situation……..	1	2	3	4	5
16. Take time to figure out what I am really feeling……...	1	2	3	4	5
17. Delve into my feelings to get a thorough understanding of them……..	1	2	3	4	5
18. Realize that my feelings are valid and important……..	1	2	3	4	5
19. Acknowledge my emotions……..……	1	2	3	4	5
20. Let my feelings come out freely…….……	1	2	3	4	5
21. Take time to express my emotions……..……..	1	2	3	4	5
22. Let my emotions come out freely ……..……	1	2	3	4	5
23. Feel free to express my emotions……	1	2	3	4	5

Appendix E

Instruction:
The following items are statements about ***your perceptions of your co-workers.*** Please use the scale provided to indicate how much each item describes your perceptions of your co-workers by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your situation, and circling the number that best represents your response.

Interpersonal Conflict with Co-workers

	Less than Once per Month or Never	Once or Twice per Month	Once or Twice per Week	Once or Twice per Day	Several Times per Day
1. How often do you get into arguments with your co-workers at work…….....	1	2	3	4	5
2. How often does your co-workers yell at you at work……..	1	2	3	4	5
3. How often is your co-workers rude to you at work……..…….....	1	2	3	4	5
4. How often does your co-workers do nasty things to you at work ……	1	2	3	4	5

Appendix F

Please use the scale provided to indicate how much each item describes your perceptions of your workplace or your co-workers by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your situation, and circling the number that best represents your response.

Perceived Control Specific to Interpersonal Conflict with Co-Workers

	Very little	Little	A moderate amount	Much	Very much
1. How much control do you personally have over the quality of your relationship with your co-workers?.....	1	2	3	4	5
2. How much can you control when and how much you have to interact with your co-workers at work?.....	1	2	3	4	5
3. How much are the interactions between you and your co-workers predictable?.....	1	2	3	4	5
4. In general, how much overall control to do you have over resolving conflict between you and a co-worker?.....	1	2	3	4	5

Appendix G

Instruction:
The following are ways people ***react to situations of interpersonal conflict with a co-worker***. Please indicate a response from 1 to 5 for each item. Please indicate how much you engage in these types of activities when you encounter interpersonal conflict with co-workers.

Coping with Interpersonal Conflict with Co-Worker

When I have a conflict a co-worker, I ……

	Never	¼ of the time	Half of the time	¾ of the time	Always
1. Focus on the problem and see how I can solve it……	1	2	3	4	5
2. Do what I think is best ……..	1	2	3	4	5
3. Outline my priorities……	1	2	3	4	5
4. Think about how I solved similar problems……..	1	2	3	4	5
5. Determine a course of action and follow it ……...	1	2	3	4	5
6. Work to understand the situation……	1	2	3	4	5
7. Take corrective action immediately…….……	1	2	3	4	5
8. Think about the event and learn from my mistakes……..……	1	2	3	4	5
9. Analyze the problem before reacting……. ……...	1	2	3	4	5
10. Adjust my priorities……	1	2	3	4	5
11. Get control of the situation……..……	1	2	3	4	5
12. Make extra effort to resolve the situation……	1	2	3	4	5
13. Come up with several different solutions to the problem……..……	1	2	3	4	5
14. Use the situation to prove that I can resolve conflict..……	1	2	3	4	5
15. Try to be prepared so I can best resolve the situation……...	1	2	3	4	5
16. Take time to figure out what I am really feeling……...	1	2	3	4	5
17. Delve into my feelings to get a thorough understanding of them……..	1	2	3	4	5
18. Realize that my feelings are valid and important……..	1	2	3	4	5
19. Acknowledge my emotions……..……	1	2	3	4	5
20. Let my feelings come out freely…….……	1	2	3	4	5
21. Take time to express my emotions……..……..	1	2	3	4	5
22. Let my emotions come out freely ……..……	1	2	3	4	5
23. Feel free to express my emotions……	1	2	3	4	5

Appendix H

The following items are statements about ***your feelings as a result of your workplace and your job***. Please use the scale provided to indicate how much each item describes your feelings of your workplace or your job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your condition, and circling the number that best represents your response.

Anger, Anxiety, Depression

In the past month, how did you feel in general at work?	Never or A Little	Some of the Time	A Good Part of the Time	Most of the Time
1. I feel sad	1	2	3	4
2. I feel unhappy	1	2	3	4
3. I feel good	1	2	3	4
4. I feel depressed	1	2	3	4
5. I feel blue	1	2	3	4
6. I feel cheerful	1	2	3	4
7. I feel nervous	1	2	3	4
8. I feel jittery	1	2	3	4
9. I feel calm	1	2	3	4
10. I feel fidgety	1	2	3	4
11. I get angry	1	2	3	4
12. I get aggravated	1	2	3	4
13. I get irritated or annoyed	1	2	3	4

Appendix I

The following items are statements about ***your feelings as a result of your workplace and your job***. Please use the scale provided to indicate how much each item describes your feelings of your workplace or your job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your condition, and circling the number that best represents your response.

Frustration

In the past month, how did you feel about your job?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Trying to get this job done was a very frustrating experience……..	1	2	3	4	5
2. Being frustrated comes with this job..……....	1	2	3	4	5
3. Overall, I experienced very little frustration on this job……	1	2	3	4	5

Appendix J

The following items are statements about ***your feelings as a result of your workplace and your job***. Please use the scale provided to indicate how much each item describes your feelings of your workplace or your job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes your condition, and circling the number that best represents your response.

Job Satisfaction

In the past month, how did you feel about your job?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In general, I like working at my organization……..	1	2	3	4	5
2. All in all, I am satisfied with my job……....	1	2	3	4	5
3. In general, I don't like my organization……	1	2	3	4	5

Appendix K

The following items are statements please circle the point on the scale that you feel is most appropriate in describing you.

1. In general, I consider myself:

1	2	3	4	5	6	7
not a very happy person						a very happy person

2. Compared to most of my peers, I consider myself:

1	2	3	4	5	6	7
Less happy						more happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?

1	2	3	4	5	6	7
not at all						a great deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?

1	2	3	4	5	6	7
not at all						a great deal

Appendix L

The following items are statements about your ***physical health in the past three months***. Please use the scale provided to indicate how much each item describes you by circling the number that best represents your response.

Physical Symptoms

In the past month, how often did you have the following condition?	Less than Once per Month or Never	Once or Twice per Month	Once or Twice per Week	Once or Twice per Day	Several Times per Day
1. An upset stomach or nausea	1	2	3	4	5
2. A backache	1	2	3	4	5
3. Trouble sleeping	1	2	3	4	5
4. Headache	1	2	3	4	5
5. Acid indigestion or heartburn	1	2	3	4	5
6. Eye strain	1	2	3	4	5
7. Diarrhea	1	2	3	4	5
8. Stomach cramps (Not menstrual)	1	2	3	4	5
9. Constipation	1	2	3	4	5
10. Ringing in the ears	1	2	3	4	5
11. Loss of appetite	1	2	3	4	5
12. Dizziness	1	2	3	4	5
13. Tiredness or fatigue	1	2	3	4	5

Appendix M

Sleep Quality

The following relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of the days and nights in the past month. Please answer all questions.

1. During the last month, what time have you usually gone to bed at night? Bed time _____
2. During the last month, how long has it taken you (in minutes) to fall asleep? _____
3. During the last month, what time have you typically gotten up in the morning?_____
4. During the last month, how many hours of actual sleep have did you get at night (this may be different than the number of hours you spent in bed)? _____

5. During the past month, how often have you had trouble sleeping because you:	Not at all true	Hardly true	Moderately true	Exactly true
a. Cannot get to sleep within 30 minutes …….	1	2	3	4
b. Wake up in the middle of the night or in the early morning……	1	2	3	4
c. Had to get up to use the bathroom……..	1	2	3	4
d. Cannot breath comfortably……	1	2	3	4
e. Cough or snore loudly…….	1	2	3	4
f. Feel too cold……	1	2	3	4
g. Feel too hot……..	1	2	3	4
h. Had bad dreams……..	1	2	3	4
i. Have pain ……	1	2	3	4
j. Other reason (please describe)_____				
How often have you had trouble sleeping because of this?	1	2	3	4

1. During the past month, how would you rate your sleep quality overall?

   Very Good _____ Fairly Good _____ Fairly Bad _____ Very Bad _____

2. During the past month, how often have you taken medicine (prescribed or "over the counter") to help you sleep?

   Not During the Past Month _____ Less than Once a Week _____ Once or Twice a Week _____ Three or More Times a Week ____

3. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

   Not During the Past Month _____ Less than Once a Week _____ Once or Twice a Week _____ Three or More Times a Week _____

4. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

   No Problem At All _____ Only a Very Slight Problem _____ Somewhat of A Problem _____ A Very Big Problem _____

Appendix N

ID:

Significant Other or Best Friend - Demographics

Please indicate the following:

Gender (circle one): Male Female

Age_____

Ethnicity:

Caucasian African American Asian Native American Hawaiian Native or

Pacific Islander Hispanic or Latino Other

Please indicate your relationship to the person who asked you to complete this survey (put an "x" next to your answer):

___ Spouse
___ Significant Other (Live with)
___ Significant Other (Do not live with)
___ Friend (Live with)
___ Friend (Do not live with)
___ Other:_____

Please indicate how long you have known the person who asked you to complete this survey:

_____ Years _____Months

How frequently do you see this person in a week?

Less than 1 time per week
1-2 times per week
3-4 times per week
Almost everyday
Everyday

Appendix O

Instruction:
You have been asked to complete this survey because you have a close relationship with the person who asked you to participate. Other people can have important insight about us and that is why you have been asked to answer some questions about the person who asked you to answer these questions. The person who asked you to participate WILL NOT see any of your responses. Only the research team will see your answers and no identifying information about you or the person who asked you to fill this out will be collected or attached to the data in any way. Please answer these questions about the person who asked you to participate honestly.

The following items are statements about ***the person's feelings as a result of his or her workplace and his or her job***. Please use the scale provided to indicate how much each item describes the feelings of the person who asked you to participate about his or her workplace or job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes his or her condition, and circling the number that best represents your response.

Anger, Anxiety, Depression

In the past month, how did he or she feel in general at work?	Never or A Little	Some of the Time	A Good Part of the Time	Most of the Time
1. Sad	1	2	3	4
2. Unhappy	1	2	3	4
3. Good	1	2	3	4
4. Depressed	1	2	3	4
5. Blue	1	2	3	4
6. Cheerful	1	2	3	4
7. Nervous	1	2	3	4
8. Jittery	1	2	3	4
9. Calm	1	2	3	4
10. Fidgety	1	2	3	4
11. Angry	1	2	3	4
12. Aggravated	1	2	3	4
13. Irritated or annoyed	1	2	3	4

Appendix P

The following items are statements about ***the person's feelings as a result of his or her workplace and his or her job***. Please use the scale provided to indicate how much each item describes the feelings of the person who asked you to participate about his or her workplace or job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes his or her condition, and circling the number that best represents your response.

Frustration

In the past month, how did he or she feel about his or her job?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Trying to get the job done was a very frustrating experience for him/her…….	1	2	3	4	5
2. Being frustrated comes with his or her job.……	1	2	3	4	5
3. Overall, he or she experienced very little frustration on this job……..	1	2	3	4	5

Appendix Q

The following items are statements about ***the person's feelings as a result of his or her workplace and his or her job***. Please use the scale provided to indicate how much each item describes the feelings of the person who asked you to participate about his or her workplace or job by choosing whether you agree or disagree with the statement, or whether the statement accurately describes his or her condition, and circling the number that best represents your response.

Job Satisfaction

In the past month, how did he or she feel about his or her job?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. In general, he or she likes working at their organization……	1	2	3	4	5
2. All in all, he or she is satisfied with their job……..	1	2	3	4	5
3. In general, he or she doesn't like their organization……..	1	2	3	4	5

Appendix R

The following items are statements or questions, please circle the point on the scale that you feel is most appropriate in describing the person who asked you to fill this out.

1. In general, he/she is:

1	2	3	4	5	6	7
not a very happy person						a very happy person

2. Compared to most of his or her peers, he or she is:

1	2	3	4	5	6	7
Less happy						more happy

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe the person who asked you to fill this out?

1	2	3	4	5	6	7
not at all						a great deal

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe the person who asked you to fill this out?

1	2	3	4	5	6	7
not at all						a great deal

About the Author

Erin Eatough is a doctoral student in Industrial/Organizational Psychology with a concentration in Occupational Health Psychology at the University of South Florida. Before coming to USF, she studied psychology and business at the University of Wisconsin-Madison and Universitá Bocconi in Milan, Italy while pursing her undergraduate degree. She received the competitive Hilldale Research Fellowship to pursue her honors thesis. After graduating with her Bachelors degree, she worked as a research coordinator at the Center for Cognitive Medicine at the University of Illinois at Chicago Medical Center for two years. As a graduate student, she is primarily interested in how occupational stressors impact psychological and physical health. She also studies the relationships between job stress and performance outcomes. She has published her research on hormonal responses to stress in *Psychoneuroendocrinology* and has contributed to the book series *Research in Occupational Stress and Well Being*. She has participated in conference symposia and presented her work at a variety of prominent academic conferences such as the Society for Industrial/Organizational Psychology, Work, Stress, and Health, The Academy of Management, and the International Society of Psychoneuroendocrinology. She has applied her training in consulting and contract projects with Procter & Gamble, TECO, PDRI, and Besiada Health Innovators. She also serves as a committee member on the Society of Occupational Health Psychology Graduate Student Committee.