



PSYCHOLOGICAL CAPITAL: A POSITIVE RESOURCE FOR COMBATING EMPLOYEE STRESS AND TURNOVER

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Workplace stress is a growing concern for human resource managers. Although considerable scholarly and practical attention has been devoted to stress management over the years, the time has come for new perspectives and research. Drawing from the emerging field of positive organizational behavior, this study offers research findings with implications for combating occupational stress. Specifically, data from a large sample of working adults across a variety of industries suggest that psychological capital (the positive resources of efficacy, hope, optimism, and resilience) may be key to better understanding the variation in perceived symptoms of stress, as well as intentions to quit and job search behaviors. The article concludes with practical strategies aimed at leveraging and developing employees' psychological capital to help them better cope with workplace stress. © 2009 Wiley Periodicals, Inc.

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The World Health Organization has declared occupational stress to be a worldwide epidemic. Certainly the impact of an increasingly pressured work environment is evident throughout American industry. One recent analysis noted that 20% of payroll of a typical company goes toward dealing with stress-related problems (Riga, 2006), and Americans identify work as their most significant source of stress because of heavy workloads, uncertain job expectations, and

long hours (American Psychological Association, 2007). Extensive research over the years has focused on identifying stressors (e.g., Colligan & Higgins, 2006), coping mechanisms (e.g., Nelson & Sutton, 1990), and ways that both individual employees and organizations can effectively manage stress (e.g., Kram & Hall, 1989). Yet, despite this attention, remedies to combat occupational stress remain elusive.

Taking a new approach, this study draws from both positive psychology and the

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emerging study of positive organizational behavior to investigate whether the recently identified core construct of psychological capital (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007) may be a key factor in better understanding not only how employees perceive stress symptoms, but also the impact of stress on intentions to quit and job search behaviors. Specifically, we propose that human resource development (HRD) strategies aimed at enhancing the components of employees' overall psychological capital or PsyCap (efficacy, optimism, hope, and resilience) may reduce their perceptions of the symptoms of stress, as well as limit subsequent turnover.

First, we will review the background of positive organizational behavior, specifically the theoretical underpinnings of the core construct of psychological capital, and briefly summarize workplace stress with particular focus on stress-associated intentions to quit and job search behaviors. Our study specifically focuses on physiological, cognitive, and emotive stress symptoms rather than exclusively cognitive appraisals of job demands themselves being stressful. After presenting the methodology and results in testing the study hypotheses, we conclude with some practical implications of the findings, paying particular attention to HRD guidelines to help build and support employees' PsyCap, which will help combat their stress and reduce turnover.

The Emerging Positive Approach

As organizations seek ways to help employees navigate the ever-challenging work environment, they increasingly are recognizing the importance of positivity and concentrating on developing employee strengths, rather than dwelling on the negative and trying to fix employee vulnerabilities and weaknesses. This approach does not claim to discover the value of positivity but, rather, calls for a more positive approach than the dominant negative perspective regarding occupational stress. For example, a recent survey of the articles in the occupational health literature found

about a 1 (positive) to 15 (negative) ratio (of positively to negatively focused articles) (Schaufeli & Salanova, 2007). Drawing from positive psychology (e.g., Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002), the emerging positive organizational behavior approach (introduced by Luthans, 2002a, 2002b; for a recent review article see Luthans & Youssef, 2007, and also see Nelson & Cooper, 2007; Wright, 2003) provides such a positive perspective and serves as the foundation for this study. Specifically, positive organizational behavior (POB) is "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement" (Luthans, 2002b, p. 59).

Although there are an increasing number of approaches associated with POB (e.g., Luthans & Youssef, 2007; Nelson & Cooper, 2007) and positive organizational scholarship (Cameron, Dutton, & Quinn, 2003), this study uses the core construct of positive psychological capital (see Luthans, Avolio, et al., 2007; Luthans, Youssef, et al., 2007). This PsyCap has been defined as "an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success" (Luthans, Youssef, et al., 2007, p. 3).

This operational definition differentiates the core construct of PsyCap (efficacy, optimism, hope, and resilience) from the widely recognized aspects of human capital (what you know in terms of knowledge, skills, abilities, and experience) and social capital (whom you know, including your network of relationships). Recent research has empirically supported PsyCap as a higher-order core factor (Luthans, Avolio, et al., 2007) that is open to development (Luthans, Avey, Avolio,

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Norman, & Combs, 2006; Luthans, Avey, & Patera, 2008) and is associated with higher performance (Luthans, Avolio, et al., 2007). As more fully outlined in the development of the study hypotheses, overall PsyCap also may affect employee stress levels and intentions to quit. Before deriving these hypotheses and testing them, however, a brief overview of the nature of today's workplace stress is provided.

Workplace Stress Relevant to Psychological Capital

A number of factors contribute to workplace stress, ranging from technological change and global competitive pressures to toxic work environments and managerial bullying (Colligan & Higgins, 2006). Heavier workloads and increased business travel also affect stress levels as more than one-fifth of U.S. managers and professionals work at least 60 hours a week and many are on call around the clock for clients across the globe (Hymowitz, 2007). Downsizing; rapid changes in competitive pressures, technology, and work procedures; heightened levels of job insecurity; and ever-demanding customers make today's workplace arguably even more stress-laden than it was just a decade ago. A large-scale survey at Princeton (1997) indicated that the majority of employees at all levels feel "quite a bit or extremely stressed" at work. A 2007 study by the American Psychological Association (APA) noted that 50% of Americans say their stress has significantly increased in the past five years, and that work is the biggest stressor for 74% of Americans, up from 59% in 2006.

The classic definition of stress offered by Lazarus (1966) is that it "occurs when an individual perceives that the demands of an external situation are beyond his or her perceived ability to cope with them." Although such stress affects employees today, it is important to note that not only does it result in negative outcomes, but it also can have positive outcomes, such as increased creativity (Le Fevre, Matheny, & Kolt, 2003) and enhanced performance (Marino, 1997).

Despite such possible benefits, however, there is no question that stress can result in health problems, increased accidents, and burnout (Bernard & Krupat, 1994). A substantial body of research clearly demonstrates the costly connection between workplace stress and illness. For example, studies show workplace stress to be a contributing factor in the leading causes of death in the United States and health-care expenditures are nearly 50% greater for workers who report high levels of stress (Goetzel et al., 1998). Research has shown that job-related stress is linked with soaring organizational (and societal) health-care costs (e.g., Colligan & Higgins, 2006; Manning, Jackson, & Fusilier, 1996).

Beyond its significant impact on health care, workplace stress is a key human resource management issue because of the apparent connections among perceived stress, employee performance (e.g., Motowildo, Packard, & Manning, 1986), and undesirable organizational outcomes, such as job dissatisfaction, burnout, and organizational withdrawal (e.g., Bhagat, McQuaid, Lindholm, & Segovis, 1985; Boswell, Olson-Buchanan, & LePine, 2004). Too often, the result of these dysfunctions is voluntary turnover. For example, the 2007 study by the American Psychological Association found that 52% of employees had searched for a new job or left a job on the basis of their perceived workplace stress. Reducing this detrimental impact and cost of workplace stress has become a major concern for both organizations and national economies (Le Fevre & Kolt, 2006). We propose that when combined into the core construct of PsyCap, the positive resources of efficacy, optimism, hope, and resilience may provide a better understanding of, as well as practical guidelines for managing, the stress epidemic plaguing today's organizations.

Heavier workloads and increased business travel also affect stress levels as more than one-fifth of U.S. managers and professionals work at least 60 hours a week and many are on call around the clock for clients across the globe (Hymowitz, 2007).

Psychological Capital: A Positive Strength for Combating Stress

In their widely recognized work, *Stress, Appraisal, and Coping*, Lazarus and Folkman (1984) argued that people suffer stress when they believe they lack the resources to deal with difficult events. They also noted the complex interaction between individuals and their surroundings and emphasized the role of cognitive processes and intervening variables (such as appraisal and coping) that may appear as “hidden factors,” but that

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greatly affect the outcome of potentially stressful events. Other researchers have recognized additional factors that may affect stress, such as personality dimensions (Costa & McCrae, 1990).

PsyCap may turn out to be one of the critical resources that Lazarus and Folkman (1984) said were needed for employees to cope with stressful events or conditions at work, thus minimizing symptoms of stress; however, Lazarus (2003, p. 94) also cautioned researchers against making a false distinction between “positive” and “negative” human characteristics. For example, he argued that “you can’t separate them and

make good sense” (Lazarus, 2003, p. 94). In his critique of positive psychology, Lazarus (2003) asserts that stress and loss are inevitable aspects of life that often play a key role in developing the individual strengths needed not only to survive, but to flourish. He argues that considerable value can be gained by more fully understanding how individuals might transcend some of the harsh realities of life and that to ignore negatively oriented stress and coping in favor of more “positive” human aspects would be shortsighted. Yet Lazarus (2003) specifically identifies efficacy, optimism, hope, and resilience as relevant avenues of exploration for enhanced understanding of how humans adapt to stress.

Although Lazarus (2003) has expressed initial reservations regarding an overzealous

positive approach, our study of positive PsyCap addresses the same cognitive capacities he advocates as instrumental in better coping with stress and, thus, reducing related symptoms. Also, all of the components of PsyCap are open to development (e.g., see Bandura, 1997; Masten & Reed, 2002; Seligman, 1998; Snyder, 2000), and recent studies show that overall PsyCap also can be developed in short training interventions with employees (Luthans, Avey, et al., 2006; Luthans, Avey, & Patera, 2008). By fostering psychological capital, HR managers may provide a new human resource development approach to help employees build the critical resources needed in today’s stress-filled workplace. Each component of the potentially critical resource of psychological capital is first briefly described to help derive the study hypotheses.

Efficacy is based on Bandura’s (1997) social cognitive theory. Applied to the workplace, it is defined as “an individual’s conviction about his or her abilities to mobilize the motivation, cognitive resources, and courses of action necessary to successfully execute a specific task within a given context” (Stajkovic & Luthans, 1998b, p. 66). Efficacy beliefs affect how individuals perceive and interpret events. Those with low efficacy are easily convinced that efforts to address difficult challenges are futile so are more likely to experience negative stress symptoms, while those with higher levels of efficacy are more likely to perceive challenges as surmountable given sufficient competencies and effort (Bandura, 2007).

Efficacy has been strongly linked with work-related performance outcomes (e.g., Bandura & Locke, 2003; Stajkovic & Luthans, 1998a). Moreover, several approaches have been found successful in developing efficacy, including mastery experiences, modeling, social persuasion, and physiological/psychological arousal (Bandura, 1997). Consistently with Lazarus (2003), Bandura (2007) argues that most human stress is governed by beliefs about coping efficacy. For example, research by Matsui and Onglatco (1992) found perceptions of work overload to be affected by perceived self-efficacy, with female employees

who had a lower sense of efficacy more stressed by heavy work demands and responsibilities than those with higher self-efficacy. Links between efficacy and workplace stress also have been demonstrated in recent studies of workers in Hong Kong and Beijing (Siu, Spector, & Cooper, 2005) and of nurses providing cancer care (Fillion et al., 2007). Efficacy also has been shown to be related to the socialization and retention of new employees (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007) and the organizational commitment and turnover intentions of existing staff (Harris & Cameron, 2005).

Optimism, as included in PsyCap, is both realistic and flexible (e.g., see Luthans, Youssef, et al., 2007; Schneider, 2001). Seligman (1998) defines an optimistic explanatory style as one that attributes positive events to personal, permanent, and pervasive causes, and negative events to external, temporary, and situation-specific ones. Optimism as a facet of PsyCap is associated with a positive outlook but is not an unchecked process without realistic evaluation (Luthans, Youssef, et al., 2007).

As with efficacy, optimism has been shown to be amenable to development through such methods as Schneider's (2001) three-step process, which includes leniency for the past, appreciation for the present, and opportunity seeing for the future. For example, as employees deal with stressors on the job, they need to be sensitive in distinguishing facts from perception and allow themselves the benefit of the doubt for misfortunes that were conceivably beyond their control. Schneider (2001) demonstrates that employees must carefully assess the utility of holding on to feelings of guilt or shame, as those negative feelings could limit their ability to appreciate and learn from the positives of a situation and even hinder future risk taking. In their analysis of "portfolio workers" (self-employed individuals who work for multiple clients), Totterdell, Wood, and Wall (2006) found optimism to be a key moderating factor in the relationship between job characteristics and job strain. Those portfolio workers with higher levels of optimism were considered by Totterdell et al. (2006) to "be

endowed with added protection" (p. 80) and less likely to experience symptoms of stress in the workplace.

Hope is commonly used in everyday language, but within the context of positive psychology has a specific meaning with substantial theoretical support (see Snyder, 2000). Hope is defined as a "positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p. 287). In other words, hope consists of both willpower (individuals' agency, or determination to achieve their goals) and "waypower" thinking (being able to devise alternative pathways and contingency plans to achieve a goal in the face of obstacles).

Research suggests that managers with higher levels of hope have correspondingly higher rates of work unit performance as well as increased retention rates and more satisfied employees (Peterson & Luthans, 2003). There also appears to be a connection between hope and job satisfaction and organizational commitment (Luthans & Jensen, 2002; Youssef & Luthans, 2007). To date, however, the relationship between hope and workplace stress has received little, if any, research attention. Yet there is compelling evidence from hope research in other contexts (e.g., clinical psychology and athletics) suggesting that hope may provide individuals a positive resource for stressful work situations. For example, Snyder and colleagues (1991) have shown that hope has a significant negative correlation with anxiety, and studies demonstrate an individual's hope level protects against perceptions of vulnerability, uncontrollability, and unpredictability (Snyder, 2000). In addition, training interventions have proven successful in supporting and building individuals' hope (Snyder, 2000).

Workplace hope training efforts are just beginning to emerge (e.g., see Luthans, Avey, et al., 2006; Luthans et al., 2008; Luthans, Youssef, et al., 2007). The initial results from these efforts focusing on goal design, pathways generation, and overcoming obstacles are

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encouraging and could help HR managers influence employees' perceptions of challenges versus hindrances in stress management (Luthans, Avey, et al., 2006; Luthans et al., 2008).

AQ5 *Resilience*, the “developable capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility” (Luthans, 2002a, p. 702) is arguably the most important positive resource to navigating a turbulent and stressful workplace. According to a recent KPMG poll, more than 25,000 mergers, acquisitions, and organizational restructurings were completed during 2007, as companies strove for enhanced competitive positioning and greater access to world markets. Job redesign, downsizing, and layoffs are increasingly commonplace as organizations shift focus and form. Career consultants urge individuals to be prepared for “wrenches in one’s career plan” and develop the ability to adjust, bounce back, and make transitions (Trunk, 2007). The “survivor” literature also offers compelling evidence of how organizational downsizing and restructuring can create considerable stress and negative consequences for remaining employees (Makawatsakul & Kleiner, 2003). More than ever, the development of resilience is needed to help individuals recover from adversity or personal setbacks—not *if* they happen, but *when* they happen.

There is considerable evidence that resilience, once believed to be a rare dispositional trait, is statelike and open to development.

There is considerable evidence that resilience, once believed to be a rare dispositional trait, is statelike and open to development (e.g., Bonanno, 2004; Coutu, 2002; Masten & Reed, 2002; Youssef & Luthans, 2005). Various methods have proven successful in building resilience, including using positive emotions (Tugade & Fredrickson, 2004), altering the perceived level of risk or personal assets (Masten, 2001), and generally fostering self-enhancement and development (Luthans, Vogelgesang, & Lester, 2006). Resilient people are characterized by a staunch

sense of reality (Coutu, 2002), and resiliency development efforts are similarly grounded in the realistic assessments and creation of coping strategies when a setback occurs.

Research indicates that resilient individuals are better equipped to deal with the stressors in a constantly changing workplace environment, as they are open to new experiences, are flexible to changing demands, and show more emotional stability when faced with adversity (Tugade & Fredrickson, 2004). Recent research also demonstrates a positive link between resilience and employee performance (Luthans, Avolio, et al. 2007), job satisfaction (Youssef & Luthans, 2007), organizational commitment (Youssef & Luthans, 2007), work happiness (Youssef & Luthans, 2007), and the ability to deal with massive corporate downsizing (Maddi, 1987). As stress is increasingly understood to contribute to employee turnover (e.g., Coomber & Barriball, 2007), it appears that resilience may be a key factor in determining how individuals respond in stressful environments.

Psychological Capital: Core Construct and Study Hypotheses

Each of the PsyCap components described has been shown to be conceptually independent (Bandura, 1997; Luthans & Jensen, 2002; Luthans, Youssef, & Avolio, 2007; Snyder, 2000, 2002) and empirically valid (Bryant & Cvengros, 2004; Carifio & Rhodes, 2002; Luthans, Avolio, et al., 2007; Magaletta & Oliver, 1999; Youssef & Luthans, 2007). This research also indicates, however, that the four factors have a common underlying link representing a core second-order positive resource called psychological capital (Luthans, Avolio, et al., 2007).

Hobfoll (2002) provides conceptual support for this finding of PsyCap as a core construct. Psychological resources theory posits that some psychological constructs are best understood as representing a core, underlying construct. For example, such a theoretical view is also evident in other multidimensional organizational behavior construct models, such as Judge and Bono’s (2001) core self-evaluations or Spreitzer’s (1995)

multifactor empowerment construct. Law, Wong, and Mobley (1998) also have described such multidimensional constructs as we propose that fit the description of positive PsyCap. For example, Bandura (2007) asserts that our daily realities are fraught with difficulties (that is, stressors), and an optimistic, hopeful, and resilient sense of efficacy is needed for well-being. PsyCap as a core construct composed of the shared variance of each of the four components empirically has been found to predict performance and satisfaction better than any of the individual components (Luthans, Avolio, et al., 2005, 2007).

On the basis of the existing related theory and research summarized, we derive the first study hypothesis as follows:

Hypothesis 1: Employees' PsyCap will have a negative relationship with their symptoms of stress.

In addition to the relationship with stress symptoms, the role that PsyCap may play in both intentions to quit and job search behaviors is examined. Although both may be considered proxies for actual turnover, they each reflect unique cognitive and behavioral manifestations. For example, following Ajzen's (1991) theory of planned behavior, intentions to quit reflect an attitude about leaving the organization (behavioral intentions), whereas job search behaviors reflect actual behaviors contributing toward turnover. Given the weak relation often found between behavioral intentions and actual behavior, both outcomes were deemed unique and appropriate. Drawing from related research findings for each component of PsyCap, as well as studies that suggest individuals in stressful occupations who have higher levels of psychological capital may be more likely to stick it out rather than quit (e.g., Luthans & Jensen, 2005), this study explored the link between PsyCap and both intentions to quit and job search behaviors.

Over the years, work attitudes and perceived available opportunities have been shown to affect turnover intentions (Bretz, Boudreau, & Judge, 1994). Moreover, various links among workplace stress, job satisfac-

tion, and intentions to quit have been demonstrated in a number of studies (e.g., Coomber & Barriball, 2007), and the connection between job search behaviors and voluntary turnover also appears well supported (e.g., Blau, 1994). As a self-regulatory process, the intensity of job search behavior can be expected to change because of feedback from the environment (Kanfer, Wanberg, & Kantrowitz, 2001).

In addition to a direct effect between employee PsyCap and both intentions to quit and actual job search behaviors, a relationship between job stress and these outcomes is expected. In high-stress environments, employees are not experiencing homeostasis in terms of normal levels of experienced stress. When symptoms are strongest, employees would be expected to attempt to relieve the disconnect between current levels of stress and desired levels of stress. Therefore, removal from the job and, hence, the source of the job stress might follow. This conclusion is grounded in the literature discussed previously and is supported by empirical evidence. For example, Saks and Ashforth (1997) found a strong relationship between stress symptoms and intentions to quit, as well as actual turnover, in a 10-month longitudinal study.

Thus, it is expected that the effects of PsyCap on intentions to quit and job search behaviors will be partially mediated by stress symptoms.

On the basis of this related theoretical and empirical literature, the remaining study hypotheses are:

Hypothesis 2a: Employees' PsyCap will have a negative relationship with their reported intentions to quit.

Hypothesis 2b: Employees' stress symptoms partially mediate the relationship between their PsyCap and intentions to quit.

Research indicates that resilient individuals are better equipped to deal with the stressors in a constantly changing workplace environment, as they are open to new experiences, are flexible to changing demands, and show more emotional stability when faced with adversity.

Hypothesis 3a: Employees' PsyCap will have a negative relationship with their reported job search behaviors.

Hypothesis 3b: Employees' stress symptoms partially mediate the relationship between their PsyCap and job search behaviors.

Methods and Measures

Under the auspices of a large midwestern university research study, we solicited volunteers for a research study on motivation in the workplace. A heterogeneous sample of 416 working adults from a wide variety of jobs and industries responded. They completed an online informed consent form and Survey 1, which measured their level of PsyCap and collected demographic information. The demographic profile included 203 males and 204 females

A heterogeneous sample of 416 working adults from a wide variety of jobs and industries responded.

and 9 others who did not list gender. The participants had 1 to 35 (*SD*, 7.5) years of tenure in their current organization. A week to two weeks later, they were contacted via e-mail to complete Survey 2, which included the outcome variables of stress symptoms, intentions to quit, and job search behaviors. This temporal separation between collecting the data

for the independent and dependent study variables follows the recommendations of Podsakoff, MacKenzie, Lee, and Podsakoff (2003) to reduce potential problems with common method variance. As they noted, "The advantage of this procedure is that it makes it impossible for the mind-set of the source or rater to bias the observed relationship between the predictor and criterion variable, thus eliminating the effects of consistency motifs, implicit theories, social desirability tendencies, dispositional and transient mood states, and any tendencies on the part of the rater to acquiesce or respond in a lenient manner" (p. 887). Of the 416 participants who initially completed Survey 1, 360 (86.5%) also completed Survey 2. This represented a total of 360 data points for hypotheses testing. Survey 1 and Survey 2 data were aligned using the participants' e-mail addresses.

All measures used in this study have been psychometrically validated in previous research and demonstrated adequate internal reliability in this study. The anchors for all measures were from 1 to 6, with 6 being the highest (most frequently or strongly agree). Specifically, PsyCap was measured with the 24-item Psychological Capital Questionnaire (PCQ; see Luthans, Youssef, et al., 2007, for the complete questionnaire). Containing six items for each of the four components (efficacy, hope, resilience, optimism), the PCQ demonstrated adequate confirmatory factor analytic structure across multiple samples (e.g., Luthans, Avolio, et al., 2007) and had strong internal reliability in this study ($\alpha = .92$). As indicated earlier, there is considerable conceptual and empirical support for examining PsyCap at the core construct level rather than according to each component (Luthans, Youssef, et al., 2007; Luthans, Avolio, et al., 2007; Luthans, Norman, Avolio, & Avey, 2008). Specifically, confirmatory factor analytic comparisons have demonstrated that the optimal fitting measurement model across multiple samples includes analysis with the core construct of PsyCap. This suggests that although the components have distinct properties, they have more in common than not (Luthans, Avolio, et al., 2007). Sample items on the PCQ address efficacy ("I am confident helping to set targets/goals in my work area"), hope ("I can think of many ways to reach my current work goals"), resilience ("I usually take stressful things at work in stride"), and optimism ("When things are uncertain for me at work I usually expect the best").

The measure for intentions to quit and job search behaviors was used by Crossley and colleagues (in press) and demonstrated adequate internal alphas in this study ($\alpha = .92$ and $.94$, respectively). An example of an intention to quit scale item is "I will quit this organization as soon as possible" and was set on anchors from 1 (strongly disagree) to 6 (strongly agree). The job search behaviors instrument developed by Crossley and colleagues (in press) asks participants to rate the frequency with which they have engaged in each of 13 behaviors. This instrument also demonstrated adequate internal reliability in this study

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($\alpha=.94$). Sample items include "Prepared/revised your resume," "Spoke with previous employers or business acquaintances about their knowing of potential job leads," and "Used the Worldwide Web or other computer services to locate job openings." This instrument was set on anchors from 1 (almost never, if ever) to 6 (frequently, if not always).

Finally, stress symptoms were measured with 7 stress items from the Depression, Anxiety, Stress Scale (DASS; Lovibond & Lovibond, 1995). This instrument, which describes several symptoms of stress, asks participants to rate the frequency with which they experience these sensations at work and was set on anchors from 1 (almost never, if ever) to 6 (frequently, if not always). It demonstrated adequate internal reliability in this study ($\alpha=.86$). A sample item is "I found it difficult to relax."

In addition to bivariate correlations, we conducted path analyses using regression for all hypotheses tests. The means, standard deviations, and results of the bivariate correlations can be seen in Table I. All study variables demonstrated skewness and kurtosis values that were well within the normal ranges, suggesting the data had a normal distribution.

Results of Hypotheses Tests

The results of the hypotheses tests can be seen in Figure 1. Hypothesis 1 predicted a negative relationship between positive PsyCap and stress symptoms. There was full support for this hypothesis, as PsyCap was positively related to stress symptoms ($\beta=-.35$; $p < .01$). Next, Hypothesis 2a and Hypothesis 3a predicted a negative relationship between PsyCap and intentions to quit and job search behaviors, respectively. As seen in Figure 1,

there was support for both as PsyCap was significantly and negatively related to employee intentions to quit ($\beta=-.24$; $p < .01$) and job search behaviors ($\beta=-.16$; $p < .01$).

Hypothesis 2b and Hypothesis 3b predicted symptoms of stress would partially mediate the relationship between PsyCap and both intentions to quit and job search behaviors. According to guidelines by Baron and Kenny (1986), partial mediation is said to exist when several conditions are satisfied. First, the independent variable (PsyCap) must be related to the dependent variables (intentions to quit and job search behaviors). Evidence of meeting this condition can be seen in Table I, as PsyCap is significantly related to both outcome variables. Next, the independent variable (PsyCap) must be related to the mediating variable (stress symptoms). This condition was met, as seen in Table I and in the testing of Hypothesis 1. The third condition of partial mediation as prescribed by Baron and Kenny (1986) is that the mediating variable (stress symptoms) must be related to the dependent variable(s) (intentions to quit and job search behaviors). This condition was met, as seen in Table I and Figure 1. Finally, for partial mediation to exist, the strength of the relationship between the independent variable and the outcome variable(s) should be reduced when the mediating variable is in the model. In this case, when adding stress symptoms to the model, the strength of the relationship between PsyCap and intentions to quit diminished from $\beta=-.29$ ($p < .01$) to $\beta=-.24$ ($p < .01$). Likewise, when the variable of stress symptoms was included in the path model, the strength of the relationship between PsyCap and job search behaviors decreased from $\beta=-.20$ ($p < .01$) to $\beta=-.16$ ($p < .01$). Thus,

TABLE I Means, Standard Deviations, and Bivariate Correlations of Study Variables

	Mean	SD	1	2	3	4
1. Psychological Capital	4.77	.57	1.00			
2. Intentions to Quit	2.59	1.22	-.29*	1.00		
3. Stress Symptoms	2.17	.86	-.35*	.22*	1.00	
4. Job Search Behaviors	1.91	.78	-.20*	.52*	.22*	1.00

* $p < .001$; $n = 416$.

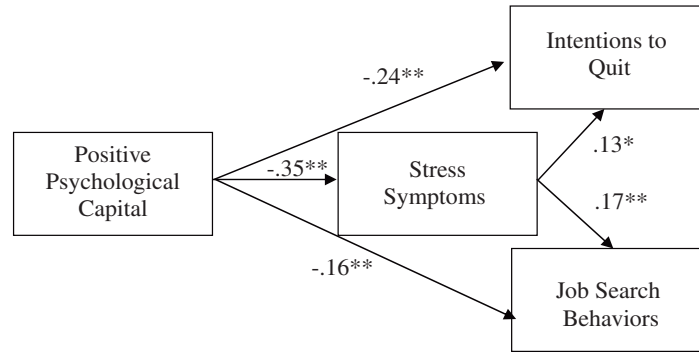


FIGURE 1. Theoretical Model of PsyCap and Stress

* $p < .05$
 ** $p < .01$

having met all the conditions for partial mediation, we found support for both Hypothesis 2b and Hypothesis 3b.

Discussion and Implications

As hypothesized, this study found a significant negative relationship between the newly recognized PsyCap of employees and their perceived symptoms of job stress. This finding contributes to the understanding that today's employees need to draw from heretofore unrecognized and largely untapped positive resources, such as psychological capital, to help them combat the dysfunctional effects of stress, such as turnover. Supporting this impact on turnover, the study findings also indicate that employees' PsyCap has a significant negative relationship with both their intentions to quit and job search behaviors, both indicators of voluntary turnover. Armed with the implications of this empirical evidence, we propose that HR training and development efforts that recognize and enhance the underemphasized positive resources of efficacy, hope, optimism, and resilience and the core construct of psychological capital may help employees combat stress and, in turn, reduce voluntary turnover.

Workplace stress management programs often focus on working conditions, such as providing flexible work schedules, creating employee assistance and wellness programs, and redesigning jobs. Organizational policies that encourage social support from supervi-

sors and coworkers also are offered to help buffer employees from stress. Participation in recreational sports is still another avenue that allows employees to release stress and interact with one another in positive ways, and recent studies suggest that organization-sponsored play can have a positive impact on employee stress levels (Nel & Spies, 2007).

Although stress management programs that focus on the organizational context can be effective, Nelson and Sutton's (1990) longitudinal study indicates the importance of recognizing dispositional as well as situational effects on work stress. Their findings suggest personal characteristics may predispose a person to stress, thereby limiting the effectiveness of such environmental interventions as job redesign and company programs. Research has shown that certain personality variables do relate to the appraisal and effects of stressful events, negative affectivity (Brief, Burke, George, Robinson, & Webster, 1988), neuroticism (McRae, 1990), and conscientiousness (O'Brien & DeLongis, 1996). Type A and Type B personality differences also have been correlated to work stress, with the impatient and overly aggressive Type A personality particularly susceptible to dissatisfaction and stress (Mathews, 1982). This research has prompted personality testing to become a common (albeit somewhat controversial) HR selection tool. Although the use of personality testing for selection must have predictive validity for performance on the job, it could also potentially be used to help ensure a bet-

ter fit between the employee and the demands of a job and, thus, may subsequently help reduce stress.

The results of the present study on the role of positive resources in combating stress go beyond the use of personality traits. Although personality dimensions may influence an employee's ability to cope with stress (Costa & McRae, 1990), these traits (for example, negative affectivity) are recognized to be relatively fixed and stable over time (Watson, Clark, & Tellegen, 1988). This dispositional, stable nature of personality traits makes them useful for employee selection, but not for employee development. On the other hand, positive resources, such as those represented by PsyCap, are defined and empirically determined (Luthans et al., 2008; Luthans, Avolio, et al., 2007) to be statelike (rather than relatively fixed trait-like personality dimensions) and, thus, are open to development and HR management. Meta-analyses indicate that cognitive-behavioral approaches, which seek to change employee cognitions and reinforce active coping skills, may be the most effective in reducing anxiety symptoms, enhancing coping strategies, and improving the perceived quality of work life (Van der Hek & Plomp, 1997; Van der Klink, Blonk, Schene, & van Dijk, 2001). This related research suggests that HR managers who recognize positive PsyCap as an important individual difference that can be developed (through the cognitive-behavioral approaches used in PsyCap training interventions discussed later) may use this development for stress management.

PsyCap short training interventions (which typically last one to three hours, depending on the number of participants) include activities designed to enhance the components of efficacy, optimism, hope, and resilience, as well as overall PsyCap (Luthans, Avey, et al., 2006; Luthans et al., 2008; Luthans, Youssef, et al., 2007). For example, in the hope component of the PsyCap training module (see the graphic model and verbal summary in Luthans, Youssef, et al., 2007, pp. 214–215), participants begin by delineating key goals they will use throughout the session. The facilitator then explains the need for (1) concrete end points to measure

success, (2) an approach (rather than avoidance) framework that allows participants to work toward goal accomplishment as opposed to away from desired goals (for example, move toward a quality target, rather than avoiding product rejects), and (3) using what Snyder (2000) calls a “stepping” method of identifying subgoals as a way to reap the benefits of even modest achievements. Then participants are instructed to generate multiple proactive pathways to the goal and reflect on and discuss the realistic (and unrealistic) options identified. This is consistent with the stress coping approach described by Taylor, Pham, Rivkin, & Armor (1998), who describe mental simulation as providing a “window on the future” by enabling people to envision possibilities and craft plans for realizing those possibilities.

At the completion of this dimension of the PsyCap training intervention, participants have taken ownership of a personally valuable and realistically challenging goal, are prepared for obstacles, and are ready to implement multiple contingency plans—that is, alternate paths to attain their goals. The facilitator and other participants serve as role models for the realistic optimism and efficacy-building processes that elicit these positive states and build employees' confidence to generate and implement plans to attain goals. As participants forecast “bad events” by anticipating potential obstacles (and then create alternative paths to minimize their impact), pessimists lose more options for expecting bad things to happen. The process of counteracting pessimism supports the development of realistic and optimistic expectations. Participants also have the opportunity to experience and model success, and social persuasion, arousal, and positive self-talks are used to support the development of efficacy and optimism further. Through visualization, participants gain “imaginal” task

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mastery experience to enhance their efficacy.

Finally, the PsyCap training intervention helps build resilience by having participants identify recent personal setbacks within their work domain, which might include major setbacks (such as pending layoffs) or minor ones (such as a missed project deadline).

After participants identify their immediate reactions to the setbacks, the facilitator elaborates on a staunch view of reality and an ideal resilient process for framing a setback, consistently with the broaden and build positivity approach advocated by Fredrickson (2001). The participants then assess the realistic impact of the setbacks, including what is in (and out of) their control, and options for taking action. Participants practice learned cognitive processes that perpetuate the development of both resilience and realistic optimism by anticipating and addressing additional setbacks. Overall, this PsyCap training appears to have the potential to provide participants with that “added protection” suggested by Totterdell et al. (2006) needed to help shield one from negative stress symptoms.

The overall objective of the PsyCap training intervention includes an integrated developmental strategy for all four PsyCap statelike capacities. Although each component is affected by the design of the intervention, research to date indicates that PsyCap is synergistic and that the participants experience an overall result greater than the sum of the four components of the training (Luthans, Avey, et al., 2006; Luthans et al., 2008). Future research is needed to investigate how well PsyCap training interventions reduce stress and lower turnover.

Limitations and Conclusion

Although it was exploratory rather than causal experimental in nature, this study did find significant inverse relationships between employees' PsyCap, their symptoms

of job stress, and measures of intentions of voluntary turnover. As in any study, however, there are research design limitations that need to be noted. First, self-reported levels of stress have been found to be differentially related (positively and negatively) to attitudinal and behavioral work outcomes, depending on the stressor being evaluated (Podsakoff, LePine, & LePine, 2007). As indicated in the foundational discussion for this study, challenge stressors (those that people appraise as potentially promoting their personal growth and achievement, such as workload or time urgency) are negatively related to job search behaviors. Alternatively, hindrance stressors (those that are viewed as constraining a person's work-related accomplishment, such as inadequate resources or role overload) are positively related to turnover intentions and withdrawal behavior. Such findings indicate that stressors are not created equal, and future research needs to investigate whether the use of scales that treat stress as a single, unidimensional construct may mask important effects. Further research also is needed to analyze more fully how PsyCap training interventions may affect both individuals' appraisal of events and the actual workplace stress symptoms experienced by participants.

Besides the stress measurement limitation of the present study, there is also the potential for inflated relationships because of common-method bias. In the data collection for this study, participants responded to questionnaire instruments that had been validated in previous research. This common method generates a concern of artificially increased relationships. We did try to minimize this potential problem by following Podsakoff et al.'s (2003) recommendation of temporally separating data gathering on independent and dependent variables. Another limitation, however, was that this study was cross-sectional and, thus, cannot account for alternative explanations in terms of the order of variables. For example, it is possible that those who engage in more job search behaviors could identify ideal employment opportunities, which may lead to intentions to quit, rather than vice

In particular, the findings suggest the need to focus future research and practice on how PsyCap training may be a valuable part of organizational stress management.

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versa. This is unlikely, however, given the fact that a certain threshold of intentions to quit generates job search behaviors in the first place. Nonetheless, causal ordering cannot be concluded from the research design used.

Despite these limitations, the results from the study can still initially support the concept that the newly recognized core positive resource of psychological capital relates to both the perception and poten-

tial outcomes of workplace stress. In particular, the findings suggest the need to focus future research and practice on how PsyCap training may be a valuable part of organizational stress management. Completely eliminating workplace stress is not a realistic, nor even desired, organizational outcome. Helping employees effectively manage stress, however, is (and will continue to be) a critical objective for effective HRM.

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