

Positivity at Work: Perceived Work-Performance, Work-Engagement, and Health in Full-  
Time Workers

by

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## ABSTRACT

This study was designed to investigate whether workplace positivity of full-time workers was related to health ratings. Positivity was conceptualized by a high rating of perceived work-performance, and work-engagement as defined by the Utrecht Work-Engagement Scale, including vigor, dedication, and absorption (Schaufeli, & Bakker, 2004). Health was measured utilizing the RAND SF-36 health survey including the eight subscales: overall, general health, physical and social functioning, emotional well-being, role limitations due to physical health or emotional problems, energy or fatigue, and bodily pain. All measures were collected simultaneously. It was predicted that perceived work-performance and all measures of work-engagement are positively associated with the aforementioned health ratings. Multiple regression analyses revealed that higher (positive) perception of work-performance and vigor were positively related to health ratings. Absorption was negatively related to health ratings. Dedication was only negatively related to physical functioning. These findings suggest that not all measures of positivity in the workplace are related to better health. Implications and future directions are discussed.

I dedicate this thesis to my father, Maximino Flores; may you continue to pursue health and well-being through research, commitment, and positivity.

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## CHAPTER 1

### PREFACE

Increased life expectancy due to advances in public health and medicine has changed the pattern of diseases in the developed world (Cassel, 2001). With people living longer, many diseases and conditions such as arthritis, cardiovascular disease, cancer, and Type 2 diabetes have been transitioned from acutely fatal, to manageable chronic conditions (10.1148/radiol.2351041768 *April 2005 Radiology*, 235, 9-12.) Consequently, over 75% of our nation's current health care costs are spent treating these chronic conditions ("CDC - Chronic Disease - Home Page," n.d.). It is important to investigate ways to lessen this strain on the economy and increase the number of adults living without preventable chronic conditions.

Research into the many factors that affect our health is a priority for our nation. Understanding the causes of disease is important; however, understanding the protective factors for health is equally essential for disease prevention (Ammerman, Lindquist, Lohr, & Hersey, 2002). There is a growing body of behavioral and physiological research suggesting that mood and emotion can have significant effects on the health of humans (Algoe & Fredrickson, 2011; Algoe & Stanton, 2012; Butler, Egloff, Wilhelm, Smith, Erickson & Gross, 2003; Consedine, Magai & Bonanno, 2002; Diener & Chan, 2011; DeSteno, Gross & Kubzansky, 2013; Davidson, Mostofsky & Whang, 2010; Salovey, Rothman, Detweiler, & Steward, 2000). More specifically, positive affect and other positive phenomena such as happiness, resiliency, positive affect, and enthusiasm are associated with many positive effects on health, such as lowered blood pressure (Ewart & Kolodner, 1994), more efficient recovery from stress (Stepptoe, Wardle, &



Marmot, 2005) , and lower prevalence of chronic diseases (Pressman & Cohen, 2005). Evidence of the impact of positive phenomena on health has been followed by an increase of studies investigating these phenomena, and ways to incorporate them in health interventions to promote health and prevent disease (Algoe & Fredrickson, 2011; Layous, Nelson & Lyubomirsky, 2013).

As many Americans can attest, experiences in the workplace environment can be a catalyst for stress (Bakker, Demerouti, & Verbeke, 2004). Traditionally, stress has been defined as an acute response to dangers in the environment, and it is known that the stress response was critical to our ancestors' survival (Lyon, Cohen & Quintner, 2011). In the modern world, however, acute stressors can more often be psychological in nature, such as interpersonal conflict, financial anxiety, and the daily hassles of life (Cohen, Miller, & Rabin, 2001). While the exposure to acute stressors is a natural human experience we are well fitted for, there are many damaging consequences that arise from chronic stress (Miller, Cohen, & Ritchey, 2002; Herbert & Cohen, 1993). The detrimental health effects of chronic psychological stress are well documented (Friedman, Brooks, Bliwise, Yesavage, & Wicks, 1995; Gouin, Glaser, Malarkey, Beversdorf, & Kiecolt-Glaser, 2012; Hasan et al., 2012; Jimmieson, McKimmie, Hannam, & Gallagher, 2010). Research regarding the many psychological stressors in the workplace suggests that stress, solely from the workplace, can have a detrimental effect on one's health (Amick et al., 1998; Johnson & Hall, 1988). For example, high levels of stress have been associated with higher rates of cardiovascular disease and hypertension (LaRocco, House, & French, 1980; Schwartz, Pickering, & Landsbergis, 1996).

The current study was designed to identify whether positive, in contrast to negative, phenomena specific to the workplace can predict health status. Specifically, this study investigated whether the positive perception of work-performance, and work-engagement are associated with good self-reported health including overall health status, high ratings of physical and social functioning, emotional well-being, high ratings of role functioning (defined as the ability to carry out work and daily-life activities), more energy/less fatigue, and less bodily pain (Stewart & Ware, 1992).

### **Hypothesis**

It was predicted that after controlling for demographic variables as well as positive affect, an employee's positive perception of work-performance and work-engagement would be positively associated with better health ratings including high overall health, high physical functioning, high social functioning, high ratings of emotional well-being, good role functioning related to physical health, good role functioning related to emotional health, more energy/less fatigue, and less bodily pain.

## CHAPTER 2

### BACKGROUND LITERATURE

#### **Stress and Health**

##### **Health and Measurement**

The meaning of health has changed as defined by the biomedical model, which characterizes health as the absence of disease (Engel, 1977), to a holistic idea of health that includes psychological, social and physiological aspects of an individual's health (Borrell-Carrió, Suchman, & Epstein, 2004). Today, the World Health Organization (WHO) defines health as a "state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity," (Grad, 2002, p.984). Health may be measured using a self-reported health paradigm (Jylhä, 2009; Kobau, Sniezek, Zack, Lucas, & Burns, 2010; Singh-Manoux, Martikainen, Ferrie, Zins, Marmot, & Goldberg, 2006; Streiner, & Norman, 2008), or by use of physiological measures, including biomarkers of disease (Cohen & Herbert, 1996; Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002; Miller, Chen, & Cole, 2009).

Self-reported health is a measurement that involves asking an individual to rate his or her overall health, (Jylhä, 2009). The use of the question, "In general, how would you rate your health?" has been recommended by the WHO as a standard measure of health because of its correlation with mortality in the community (World Health Organization, 1996), and is included in the RAND Short Form, Health Survey-36 (Ware & Sherbourne, 1992).

The area of psychoneuroimmunology (PNI) has developed from the hypothesis that psycho-social processes involving emotion and/or stress can impact the human

immune system and provide insights for predicting health status (Kiecolt-Glaser & Glaser, 1992; Kiecolt-Glaser & Glaser, 1995; Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002). Immunological measures include inflammatory cytokines such as interleukin-6 and c-reactive proteins, as well as agents that affect these proteins including glucocorticoids (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002). Inflammatory cytokines are proteins secreted by immune cells that cause a cascade of events through cell signaling (Cannon, 2000). They react to infection, and contribute to wound healing, inflammation, and cancer (Cannon, 2000). Glucocorticoids are hormones that suppress immune function (and inflammation) as well as activate the process of creating glucose from fat storages (Coderre, Srivastava & Chiasson, 1991). Glucocorticoids can have both positive and negative effects on the human body. For example, balanced levels of glucocorticoids, such as cortisol, promote the reduction of inflammation and an appropriate increase in blood sugar in a hypoglycemic state (Coderre, Srivastava & Chiasson, 1991). On the other hand, too much or too little cortisol can lead to... Both maladaptive immune responses or changes in immune function are associated with increased risk of disease (Rabin, 1999).

## **Stress**

To understand how stress can contribute to disease, one must first consider what the stress response evolved to do. For mammals, a stress response begins with the perception of threat. Then, a chain of events in the body occurs that results in extra oxygen and glucose sent to the large skeletal muscles and the brain, preparing the organism for the “flight or fight” response. In addition, changes in the immune system ready the body for potential wound repair and control of infectious agents (Cohen,

Janicki-Deverts, & Miller, 2007; Cohen, Janicki-Deverts, Doyle, Miller, Frank, Rabin & Turner, 2012). Changes in the immune system during stress prepared ancient humans to deal with physical threats in the environment, allowing rapid healing to injuries suffered during confrontations that were probably common in that time (Padgett & Glaser, 2003). Today, most stressors in the environment are not as immediately life threatening as they once were, however the modern human body continues to respond to them in the same physiological way (Folkman, Lazarus, Gruen, & DeLongis, 1986).

### **The Effects of Stress on Health**

Chronic stress has been associated with poor health (Friedman, Brooks, Bliwise, Yesavage, & Wicks, 1995; Gouin, Glaser, Malarkey, Beversdorf, & Kiecolt-Glaser, 2012; Hasan et al., 2012; Jimmieson, McKimmie, Hannam, & Gallagher, 2010). Herbert and Cohen posited a model explaining how stress initiates physiological and behavioral responses that can be a catalyst for illness and disease (Gouin et al., 2012; Herbert & Cohen, 1993). The physiological pathways include the sympathetic nervous (SNS) response and the hypothalamic-pituitary-adrenocortical axis (HPA) (Miller, Chen, & Zhou, 2007). When a threat in the environment is appraised, the SNS releases the catecholamines epinephrine and norepinephrine into the blood stream. This quickly elevates heart rate. In addition, through a chain of reactions within the HPA, corticosteroids, including cortisol, are released. Corticosteroids are anti-inflammatory agents involved in the recovery from wounds or exposure to infectious agents suffered during a flight or fight situation. Over time, chronic exposure to glucocorticoids can exert negative effects on the immune response, leading to atherosclerosis (Gouin et al.,

2012), hypertension, cardiovascular disease (Segerstrom & Miller, 2004) and sundry other health problems (Friedman et al., 1995; Miller, Cohen, & Ritchey, 2002).

Chronic psychological stress can play a large role in the cortisol response and its recovery after exposure to new acute stressors (Meuwly et al., 2012). For example, in a study by Marin and colleagues (Marin et al., 2007), young women with chronic stress, defined as experiencing stress in romantic relationships, friendships, and family relationships, exhibited a greater cortisol release during an acute stressor compared to those women without chronic stress (Marin et al., 2007). In addition to its direct association to the cortisol response, chronic stress has also been shown to affect immune function and inflammatory cytokines (Cohen, et. al., 2012; Cohen & Herbert, 1996; Cohen, Miller, & Rabin, 2001; Gouin, et. al., 2012; Hasan, et.al., 2012; Herbert & Cohen, 1993; Miller, Cohen, & Ritchey, 2002). It has been suggested that daily stressors can slowly elevate the cytokines: interleukin-6 (IL-6) and C-reactive proteins, over time (Gouin et al., 2012). Individuals with elevated inflammatory cytokines have a higher risk for cardiovascular disease including diabetes, heart attack, and stroke (Yudkin, Kumari, Humphries, & Mohamed-Ali, 2000). Furthermore, not only does chronic stress promote inflammation, it can also be associated with a diminished production of protective inflammatory suppressants such as some glucocorticoids (Miller et al., 2002) and lowered immune function at a cellular level (Segerstrom & Miller, 2004). Additionally, chronic stress has also been linked to age-related diseases such as cognitive decline and memory related issues as well as the promotion of muscle atrophy (Hasan et al., 2012).

In addition to the physiological detriments, stress can also affect an individual's quality of life (Weis et al., 2006). High levels of stress have been associated with a low-rating of self-reported health; for example, a group of veteran women who screened positive for post-traumatic stress disorder, were more likely to rate their overall health as poor, (Odds Ratio- OR = 3.45, 95% Confidence Interval- C.I: 2.05-5.78) (Dobie, Kivlahan, Maynard, Bush, Davis & Bradley, 2004). Additionally, Latino adults reporting high levels of acculturation stress were more likely to self-report poor to fair health (OR = 1.29, 95% C.I: 1.11-1.5) (Finch & Vega, 2003). Similarly, in a sample of European adults, those experiencing chronic stress in the form of substantial neighborhood problems, were more likely to self-report fair to poor health (OR = 2.05, 95% C.I: 1.15-3.65) (Stephoe, & Feldman, 2001). Similar effects on health have also been found to stem from work-related issues (Johnson, & Hall, 1988).

### **The Workplace, Stress and Health**

According to the Centers for Disease Control and Prevention, job stress is defined as “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker... and can lead to poor health and even injury” (<http://www.cdc.gov/niosh/docs/99-101>, n.p.). In a study conducted by the Families and Work Institute, more than a quarter of workers report that they were “often or very often burned out or stressed by their work” (Galinsky, 2005, p.2). Many different issues have been found to cause stress in the workplace including: role conflict and ambiguity (Jackson & Schuler, 1985), control or autonomy (Spector, 1986), problems with workload and burnout (Bakker, Demerouti, & Verbeke, 2004), job dissatisfaction, interpersonal conflict (Ganster, Fusilier, & Mayes, 1986), fiscal

compensation, and job performance (Kim & Garman, 2004). These factors, over time, may contribute to employee burnout (Bakker, Demerouti, & Schaufeli, 2005). Burnout is defined as an over-exposure to work-stressors with not enough work-resources such as time, energy, and social support (Bakker, Demerouti, & Schaufeli, 2005). Typically, burnt-out employees lack energy and enthusiasm about their job (Bakker, Demerouti, & Schaufeli, 2005)

One of the earlier models used to quantify the effect of workplace stress on health is the Isostrain model (Johnson & Hall, 1988; Karasek et al., 1998). The model proposes that “hazardous work” conditions are created when psychological demands are high, with low decision latitude or autonomy to make decisions about such demands, particularly if social support is lacking (Karasek et al., 1998). In a study of women nurses, “high strain” work was associated with high amounts of pain, lower ratings of self-reported, general health, more mental health problems, and a risk for emotional and physical role limitations, as defined by the ability to carry out work and daily-life activities (Amick et al., 1998). Furthermore, workplace stress has also been shown to alter the cortisol response in workers (Dahlgren, Kecklund, & Akerstedt, 2005; Morgan, Cho, Hazlett, Coric, & Morgan, 2002). For example, in a study of white collar workers, long term job strain was associated with elevated evening cortisol secretion, a marker of chronic stress (Rystedt, Copley, Devereux, & Michalianou, 2008). Workplace stress has also been shown to negatively impact sleep quality; for example, Burgard and colleagues (2009) found that stressful workplace experiences were related to poor sleep quality whereas stressful home-life experiences were not (Burgard & Ailshire, 2009). As these examples show, negative phenomena and experiences in the workplace can have a significant effect



on health. Much less is known, however, about whether positive phenomena in the workplace can have a positive or protective effect on health.

### **Work-Engagement and Occupational Well-being**

Traditionally, occupational well-being has been conceptualized as self-reported job-satisfaction (Sparks, Faragher & Cooper, 2001; Warr, 1992). In a meta-analysis by Spector (1986), perceived autonomy (high decision latitude) in the workplace was associated with more job-satisfaction and less somatic and emotional symptoms. As workplace stress involves burnout due to low decision latitude and high demands, Schaufeli and colleagues (2002) proposed a new measure (the Utrecht Work-Engagement Scale) of these concepts written in an opposite, positive manner to measure work-engagement (Schaufeli, Salanova, González-romá & Bakker, 2002). Work-engagement is defined by three sub-scales including vigor, dedication, and absorption (Bakker, Demerouti, & Schaufeli, 2005). Vigor is associated with mental energy and resilience at work. Dedication is defined as a sense of pride in one's work and feeling as though one's work is meaningful. Absorption is happy engrossment in the work-task at hand. Little research has investigated whether work-engagement or occupational well-being and health are related (Andreassen, Hetland, Molde, & Pallesen, 2011; Danna & Griffin, 1999; Richardsen, & Martinussen, 2006; Schaufeli & Bakker, 2004).

### **Positive Affect**

#### **What is Positive Affect?**

The field of positive psychology has grown as a research area in the past decade along with measures of positivity (Hart & Sasso, 2011; Mills, Fleck, & Kozikowski, 2013; Seligman, Steen, Park & Peterson, 2005). Early research investigating emotions

and affect has directed the conceptualization of affect states, including positive affect (Watson 1988b; Watson, Clark & Tellegen, 1988; Watson & Tellegen, 1985). Positive affect is a psychological construct defined by one's level of pleasurable interest toward one's own environment, measured by level of enthusiasm, alertness, and feelings of activeness (Pettit, Kline, Gencoz, Gencoz, & Joiner, 2001; Watson, Clark & Tellegen, 1988). Having a high positive affect rating is characterized by fulfilling engagement, high levels of mental and physical energy, and high ratings of focus, while having low positive affect is characterized by sadness and lethargy (Watson, Clark & Tellegen, 1988). A common method of measuring positive and negative affect is the Positive and Negative Affect Schedule scale (Lyubomirsky, King, & Diener, 2005; Naragon-Gainey, Watson & Markon, 2009).

### **Positive Affect and Health**

Positive emotions and affect have been associated with improved creativity and cognition, improved social interaction, as well as optimal mental and physical health (Pressman and Cohen, 2005). There are many studies that link self-reported health status and positive affect (Brissette, Leventhal, & Leventhal, 2003; Cohen, Doyle, Turner, Alper & Skoner, 2003; De Gucht, Fischler, & Heiser, 2004; Edwards & Klemmack, 1973; Gatten, Brookings & Bolton, 1993; Kvaal & Patodia, 2000; Sullivan, LaCroix, Russo, & Walker, 2001). For example, in a study involving participants with lung cancer, patients that scored high in positive affect, reported better health overall, including less pain and better social functioning, whereas negative affect was significantly related to greater bodily pain, poor physical and social functioning, and limitations in role functioning due to emotional difficulty (Hirsch, Floyd, & Duberstein, 2012). There are

also studies that link overall, self-reported health and positive affect in healthy individuals (Benyamini, Idler, Leventhal & Leventhal, 2000; Casten, Lawton, Winter, Kleban, & Sando, 1997; Røysamb, Tambs, Reichborn-Kjennerud, Neale, & Harris, 2003; Takkouche, Regueira & Gestal-Otero, 2001; Watson, 1988b). For example, adults who rate high in positive affect also self-report good or excellent health status compared to those who rated low in positive affect (Pettit et al., 2001). Similarly, in a gerontological study, participants with chronic diseases and high positive affect, self-reported a higher mental and physical quality of life as well as less symptoms of depression and distress compared to those with chronic diseases but low positive affect (Hu & Gruber, 2008). Possessing high positive affect has also been shown to increase other protective health behaviors such as engaging in social and physical activity (Watson, 1988b).

It has been suggested that one possible mechanism for these positive health associations, could be that positive affect is related to a less intense physiological response during stress as well as a more efficient recovery from stress (Davidson, Mostofsky, & Whang, 2010; Steptoe, Gibson, Hamer, & Wardle, 2007). For example, in a physiological study, compared to adults who report low positive affect, participants with high positive affect had lower resting systolic blood-pressure, lower blood pressure during and after stressful tasks, as well as a quicker diastolic blood pressure recovery after a stressful activity. Furthermore, participants with lower positive affect also showed increased cortisol in the early morning hours as well as an elevated cortisol awakening response (associated with neuroendocrine dysregulation) (Steptoe et al., 2007). The purpose of this study was to investigate whether positive phenomena in the workplace are associated with better health status.

## CHAPTER 3

### PILOT STUDY AND RATIONALE

In a pilot study from a convenience sample of undergraduate college students enrolled in a psychology class, participants were asked to complete an online survey including questions regarding their health and happiness. The sample consisted of 536 students, mostly women (73.88%) with a mean age of 22.6 years ( $SD = 5.97$ ). A little over half of participants (58.1%) reported being generally happy, 28% were scored as high in impulsivity, 73.7% reported being a "good student", and 87.4% reported "good" to "excellent" health. Simple and multiple logistic regression analyses were performed with health status as the outcome variable. Health status was self-reported using the question utilized by the Centers for Disease Control to ascertain health status: "In general would you say your health is?" with five response-choices (excellent to poor) using a Likert scale. "Good or excellent" health was coded as 1, and "fair to poor" health was coded as 0. The predictors for self-reported health included gender, age, resilience, stress, subjective happiness, impulsivity, and self-reported perception of academic performance. Resilience was measured using the Connor-Davidson Resilience Scale (Connor & Davidson, 2003), stress was measured using the Daily Hassles Scale (Kohn & McDonald, 1992), subjective happiness was measured using the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), and impulsivity was measured using the Barratt Impulsivity Scale (Barratt, 1975). Self-reported perception of academic performance was an item taken from a survey utilized by the CDC in the Youth Risk Behavior Surveillance System, "Compared to other students at your school, what kind of student would you say you are?" (Pate, Heath, Dowda, & Trost, 1996). When controlling for age and gender,

the multiple logistic regression analysis of completed records revealed that a low impulsivity rating (OR=.966, 95% CI: .940-.992), a high overall subjective happiness score (OR=1.656, 95% CI: 1.294-2.12), and the perception of "good" academic performance (OR=1.488, 95% CI: 1.141-1.942) were associated with better self-reported health status. It is important to note that a perception of good academic performance predicted good self-reported health status beyond the contribution of other influential variables including subjective happiness. It is this finding that has driven the rationale that perhaps, a positive perception of performance at work, as well as other positive phenomena, may also have a protective effect on self-reported health status. Because our sample was quite young, other health variables such as chronic disease and somatic symptoms were not taken into account for the above analyses. Thus, in the current study, I recruited subjects within a broader range of ages to capture a representative sample of the working adult population. This has allowed me to explore the relationship between positivity in the workplace and health ratings.

## CHAPTER 4

### METHOD AND PROCEDURE

A convenience sample of 400 participants was obtained by recruiting through Amazon.com's "Mechanical Turk" or MTurk website: <https://www.mturk.com/mturk/>. MTurk is a website that allows contracted work for small tasks to a diverse workforce online. A "worker" can choose to complete a task through this platform for a sum of money set forth by the "requester." In a recent review by Buhrmester and colleagues (2011), MTurk was described as equipped to handle behavioral research as it already contains a "streamlined process of study design, participant recruitment, and data collection;" and participants are slightly more diverse than regular internet populations as well as undergraduate populations (Buhrmester, Kwang, & Gosling, 2011, p.3). A link to the survey was made available to workers via the MTurk website. Participants read a consent form informing them of the purpose of the project, their rights as participants, payment, and confidentiality. The participants did not identify themselves, and thus the participation was anonymous. Each participant received one dollar for his or her participation in the survey. Although this sum does seem low, "workers" using MTurk typically get paid anywhere from one cent to 13 dollars per task depending on the time spent on the task and the complexity of the task. Data collected from participants were managed using Qualtrics online software, and analyzed using SPSS version 20 (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp). The Arizona State University Institutional Review Board approved this research study on January 31, 2014.

## Measures

### Positive Affect

Positive affect was measured using the Positive and Negative Affect Schedule Scale (PANAS). The PANAS contains a list of 20 words that describe feelings (e.g. "interested, alert, and afraid."). Participants indicated to what extent they experienced each feeling in the past week using the following five-point Likert scale: "very slightly or not at all, a little, moderately, quite a bit, and extremely." The PANAS is commonly used (Ebesutani, et. al., 2011; Harmon-Jones, Harmon-Jones, Abramson, & Peterson, 2009; Kercher, 1992; Petrie, Chapman, & Vines, 2013; Pressman & Cohen 2005;) to measure positive and negative affect, and has been found to be a reliable and valid measure (Crawford & Henry, 2004). The Chronbach's alpha for this sample was ( $\alpha = .80$ ).

### Health

I used the RAND Short Form Health Survey (SF 36); a 36-item, self-report, questionnaire that measures general health ratings, physical and social functioning, emotional well-being, role limitations due to physical health or emotional problems, energy or fatigue, and bodily pain. These eight health subscales were created using the 40 that were included in the Medical Outcomes Study (Stewart & Ware, 1992). The SF-36 was developed to be a generic health questionnaire as it does not target any one group of specific age, treatment or disease (Ware & Sherbourne, 1992). According to the SF-36 bibliography, the measure has been cited in over 4,000 publications (Turner-Bowker, Bartley, & Ware, 2002). The SF-36 has been utilized in numerous health outcomes studies and has been found to be a valid and reliable measure of the aforementioned subscales (Ware, Kosinski, Bayliss, & McHorney, 1995; Stewart, et.al., 1992). It has

been created to fulfill psychometric criteria for comparing groups (Ware, Kosinski, Bayliss, & McHorney, 1995). The Chronbach's alpha for this sample was ( $\alpha = .94$ ).

### **Positive Phenomena in the Workplace**

I used two measures to gauge positivity in the workplace. (1) The Utrecht Work-Engagement Scale is a 17-item scale used to measure work-engagement of participants. (Schaufeli, Salanova, González-romá & Bakker, 2002). Work-engagement is defined as the opposite of work burnout (Bakker, Demerouti, & Schaufeli, 2005). Employees that report being burnt-out are typically exhausted, over-worked and have a negative perception of work. Work-engagement is defined as a positive mindset at work, and the perception that work is fulfilling depicted by three subscales: vigor, dedication and absorption (Schaufeli, & Bakker, 2004). These subscales have been found to be positive measures of occupational well-being (Seppälä et al., 2009). The scale has also been shown to have good construct validity and is recommended for further research (Seppälä et al., 2009). The second measure I utilized is one item that ascertains self-perception of work performance. The item is worded as follows: "Compared to other employees at your work, what kind of employee would you say you are?" This question was adapted from the item utilized in the pilot study ascertaining perception of performance in school originally used by the CDC (Pate, Heath, Dowda, & Trost, 1996). The Chronbach's alpha for this sample was ( $\alpha = .93$ ).

### **Data Management**

Data were managed using Qualtrics Online Survey Manager, Excel 2011, and SPSS version 20. First, data was stored in Qualtrics Online Survey Manager. I



downloaded an Excel spreadsheet of this data to clean. Of the 400 participants collected, 50 were excluded because they completed the survey in eight minutes or less. I chose this time cut-off as the survey took an average of 16 minutes to complete.

It is reasonable that a participant may be able to finish the survey in half the time, however, if the participant took less time, the integrity of the responses may be questionable (due to not reading carefully etc.) Every participant was compensated despite the time taken to complete the survey. Within the survey, two manipulation checks were included to gauge whether participants were paying attention while taking the survey. These checks included the following questions, "Choose option 2; and Please choose option D." Participants that did not follow the directions for these questions were eliminated from the data analysis. Only 9 participants failed to answer these questions correctly, and had been previously eliminated due to short survey time.

Once the data were reduced, I coded and created all variables in SPSS. Age was coded as follows, 18-25 years = 1, 26-35 years = 2, 36-45 years = 3, 46-55 years =4, 56-65 years = 5, 65+ years = 6. Males were coded as 1, and females = 2. For the measure of education, some high school or no diploma = 1, high school graduate, diploma or diploma equivalent = 2, some college credit, no degree = 3, trade or technical training = 4, Associate degree = 5, Bachelor's degree = 6, Master's degree = 7, and Doctorate, or medical doctor degree = 8. Finally, responses to the PANAS survey (positive affect) were coded as very slightly or not at all = 1, a little = 2, moderately = 3, quite a bit = 4, extremely = 5. All aforementioned variables, except gender, were treated as continuous variables in all analyses (Rhemtulla, Brosseau-Liard, P& Savalei, 2012).

The Utrecht Work Engagement Scale was coded as follows. Vigor is measured by

6 items (e.g. "When I get up in the morning, I feel like going to work;" Seppälä et al., 2009, p.479). Dedication is measured by 5 items (e.g. "I am enthusiastic about my job;" p.479). Absorption is measured by 6 items (e.g. "It is difficult to detach myself from my job;" p.479). Responses included a seven choice Likert scale from "never to always," where never was coded as 1, almost never = 2, rarely = 3, sometimes = 4, often = 5, very often = 6, and always = 7. Work engagement scale variables were treated as continuous variables (Rhemtulla, Brosseau-Liard, P& Savalei, 2012).

Self-perception of performance included one item worded as, "Compared to other employees at your work, what kind of employee would you say you are?" Responses from perception of work performance included a seven choice Likert scale from "one of the best" to "near the bottom," and were reverse coded for interpretability in analyses as follows, one of the best = 7, far above the middle = 6, a little above the middle = 5, in the middle = 4, a little below the middles = 3, far below the middle = 2, near the bottom = 1. Self-perception of performance was also entered as a continuous variable (Rhemtulla, Brosseau-Liard, P& Savalei, 2012).

Health subscales from the SF-36 were created using a two-step method proposed by the SF-36 scoring handbook (Stewart, Sherbourne, Hays et. al., 1992). First items were recoded and scored from 0 to 100, with 100 being the most favorable health state. Second, subscales were formed from different items within the omnibus scale. General health is assessed using 5 items (e.g. "In general, would you say your health is?") Physical functioning is measured using 10 items (e.g. "Does your health limit you in these activities: lifting or carrying groceries?") Social functioning is measured using two items (e.g. "During the past 4 weeks, to what extent has your physical health or emotional

problems interfered with your normal social activities with family, friends, neighbors, or groups?) Emotional well-being is measured using 5 items (e.g. "How much of the time during the past 4 weeks have you felt calm and peaceful?"). Role limitations due to physical or emotional problems is measured by 7 items (e.g. Have you had any of the following problems with your work or other regular daily activities as a result of your physical health/emotional problems: cut down the amount of time you spent on work or other activities?") Energy and fatigue is measured using 4 items (e.g. "How much of the time during the past 4 weeks have you felt worn out?") Bodily pain is assessed using two items (e.g. "How much bodily pain have you had in the last 4 weeks?") All scales were coded and scored according the SF-36 handbook, and scores ranged from 0 to 100- with a higher score representing better health.

### **Analytic Strategy**

The data was analyzed using eight regression models with each one of the eight SF-36 subscales as a dependent variable. To investigate whether work-engagement and positive perception of performance at work were significant predictors of the SF-36 health scales, a multiple regression analysis was performed with vigor, dedication, absorption, and perception of work performance as independent variables, and each of the SF-36 subscales entered as the dependent variable, for a total of eight models. These subscales include: 1) general health, 2) physical functioning, 3) social functioning, 4) emotional well-being, 5) role functioning related to physical health, 6) role functioning related to emotional problems, 7) energy and fatigue, and 8) bodily pain. Age, gender, education, and positive affect (as measured by the PANAS) were also included in all models as independent covariate variables.

## CHAPTER 6

### RESULTS

#### **Sample Characteristics**

Of the participants included in the analysis 61.7% were between the ages of 18 and 35 years, with the range being 18 to 65 years of age. Fifty six percent of the participants were male. The majority of participants classified themselves as either Caucasian (50.7%), or Asian/Pacific Islander (35.7%). Close to half (44.5%) of all participants had a Bachelor's degree. Income level was highly variable with 34% of participants reporting a net income of less than \$25,000, 29.1% of participants reporting a net income between \$25,000 and \$44,999, 22.2% of participants reporting a net income between \$45,000 and \$74,999, and only 14.7% of participants reporting incomes of or above \$75,000.

#### **SF-36 Health Scales as Dependent Variables**

##### **Workplace Positivity and General Health**

Only one aspect of work-engagement was positively associated with general health; as predicted, vigor was a significant predictor of general health,  $b = 6.47$ ,  $t(321) = 3.58$ ,  $p < .001$ . Additionally, as predicted, positive perception of work-performance was an independent, significant predictor of general health,  $b = 2.37$ ,  $t(321) = 2.60$ ,  $p = .01$ . Neither dedication,  $b = -2.25$ ,  $t(321) = -1.54$ ,  $p = .12$ , or absorption  $b = -2.67$ ,  $t(321) = -1.63$ ,  $p = .10$  were significant predictors of general health. Of the covariate variables, level of education  $b = 1.71$ ,  $t(321) = 2.55$ ,  $p = .01$ , and positive affect  $b = .508$ ,  $t(321) = 3.02$ ,  $p = .003$  were significant predictors of general health, while age  $b = .254$ ,  $t(321) =$

.253,  $p = .80$  and gender  $b_5 = -3.64$ ,  $t(321) = -1.69$ ,  $p = .09$ , were not. See Table 1 for all regression results and  $R$  statistics.

Table 1

*Summary of Multiple Regression Analyses with SF-36 Health Scales as Outcomes*

	General health  $N = 322$	Physical Function  $N = 311$	Social Function  $N = 319$	Emotion Well-Being  $N = 321$	Role Limit. Physical  $N = 319$	Role Limit. Emotion  $N = 319$	Energy/Fatigue  $N = 320$	Bodily Pain  $N = 322$
$R^2$	.16**	.138**	.221**	.347**	.149**	.197**	.373**	.131**
Independent Variable	$B$	$B$	$B$	$B$	$B$	$B$	$B$	$B$
Performance	2.37* *	4.91**	4.01**	2.75**	4.54**	7.55**	.33	3.56**
Vigor	6.47* *	8.57**	12.02**	10.23**	12.02**	14.39**	8.53**	9.27**
Dedication	-1.54	-4.03**	-1.19	1.35	-3.32	1.58	1.58	-2.71
Absorption	-2.67	-3.99 †	-6.37**	-6.94**	-5.98**	-10.03	-10.03**	-4.29**
Age	.254	-1.85	3.56	3.18**	3.01	3.18**	1.17	.79
Gender	-3.64	-5.941	-.54	1.72	-2.93	.57	-3.67	-3.67
Education	1.71* *	-.64	1.85	1.34*	.08	.71	3.33**	.54
Positive Affect	.508* *	-.19	.45	.54**	.19	-.02	.77**	-.24

†  $p = .057$ ; \*  $p < .05$ ; \*\*  $p = .01$

Note: For all Models, age was a categorical variable. Male = 1, Female = 2.

### **Workplace Positivity and Physical Functioning**

As predicted, vigor was also a significant predictor of physical functioning,  $b = 8.57$ ,  $t(310) = 3.69$ ,  $p < .001$ , as well as positive perception of work-performance,  $b = 4.91$ ,  $t(310) = 4.23$ ,  $p < .001$ . Conversely, dedication was a significant negative predictor of greater physical functioning,  $b = -4.03$ ,  $t(310) = -2.16$ ,  $p = .03$ . Absorption was a marginally, unique, negative, significant predictor of physical functioning  $b = -3.99$ ,  $t(310) = -1.91$ ,  $p = .057$ . Covariate variables were not independent, significant predictors of physical functioning including, gender  $b = -5.94$ ,  $t(320) = -.22$ ,  $p = .83$ , level of education  $b = -.54$ ,  $t(320) = -.64$ ,  $p = .52$ , age  $b = 1.85$ ,  $t(320) = 1.49$ ,  $p = .15$ , and positive affect  $b = -.193$ ,  $t(320) = -.90$ ,  $p = .37$ .

### **Workplace Positivity and Social Functioning**

The results demonstrated that, as predicted, vigor,  $b = 12.02$ ,  $t(318) = 5.83$ ,  $p < .001$ , and positive perception of work-performance,  $b = 4.01$ ,  $t(318) = 3.96$ ,  $p < .001$  were individual, significant predictors of social functioning. Contrary to my prediction, absorption was a significant negative predictor of greater social functioning,  $b = -6.37$ ,  $t(318) = -3.43$ ,  $p = .001$ . Dedication was not a unique, significant predictor of social functioning,  $b = -1.19$ ,  $t(318) = -.72$ ,  $p = .47$ . Of the covariate variables only age was an independent, significant predictor of social functioning  $b = 3.56$ ,  $t(318) = 3.1$ ,  $p = .002$ . Level of education  $b = -.54$ ,  $t(318) = -.64$ ,  $p = .52$ , gender  $b = 1.85$ ,  $t(318) = 1.49$ ,  $p = .15$ , and positive affect  $b = -.09$ ,  $t(318) = -.45$ ,  $p = .65$ . were not significant predictors of social functioning.

### **Workplace Positivity and Emotional Well-being**

Vigor,  $b = 10.23$ ,  $t(320) = 5.95$ ,  $p < .001$ , and positive perception of work-performance,  $b = 2.75$ ,  $t(320) = 3.17$ ,  $p = .002$  were individual, significant predictors of emotional well-being. Contrary to my prediction, absorption was a significant negative predictor of greater emotional well-being,  $b = -6.94$ ,  $t(320) = -4.48$ ,  $p < .001$ . Dedication was not a unique, significant predictor of emotional well-being,  $b = 1.35$ ,  $t(320) = .97$ ,  $p = .33$ . Of the covariate variables age  $b = 3.18$ ,  $t(320) = 3.33$ ,  $p = .001$ , education  $b = 1.34$ ,  $t(320) = 2.11$ ,  $p = .04$ , and positive affect  $b = .54$ ,  $t(320) = 3.37$ ,  $p = .001$  were independent, significant predictors of emotional well-being, while gender  $b = -1.72$ ,  $t(320) = -.84$ ,  $p = .40$  was not.

### **Workplace Positivity and Role Functioning Related to Physical Health**

As predicted, vigor,  $b = 12.02$ ,  $t(318) = 4.06$ ,  $p < .001$ , and positive perception of work-performance,  $b = 6.9$ ,  $t(318) = 4.54$ ,  $p < .001$  were individual, significant predictors of role functioning related to physical health. Contrary to my hypothesis, absorption was a significant negative predictor of greater role functioning,  $b = -5.98$ ,  $t(318) = -2.18$ ,  $p = .03$ . Dedication was not a unique, significant predictor of role functioning,  $b = -3.32$ ,  $t(318) = -1.34$ ,  $p = .18$ . No covariate variables were independent, significant predictors of role functioning, including age  $b = 3.01$ ,  $t(318) = 1.8$ ,  $p = .07$ , education  $b = .09$ ,  $t(318) = .08$ ,  $p = .93$ , gender  $b = -2.93$ ,  $t(318) = -.82$ ,  $p = .42$ , and positive affect  $b = -.19$ ,  $t(318) = -.68$ ,  $p = .50$ .

### **Workplace Positivity and Role Functioning Related to Emotional Problems**

As predicted, vigor,  $b = 14.39$ ,  $t(318) = 4.34$ ,  $p < .001$ , and positive perception of work-performance,  $b = 7.55$ ,  $t(318) = 4.49$ ,  $p < .001$ , were individual, significant

predictors of role functioning related to physical health. Again, contrary to my hypothesis, absorption,  $b = -10.03$ ,  $t(318) = -3.37$ ,  $p = .001$ , was a significant, negative predictor of greater role functioning. Dedication was not a unique, significant predictor of role functioning,  $b = 1.58$ ,  $t(318) = .59$ ,  $p = .56$ . Of the covariate variables age  $b = 3.18$ ,  $t(318) = 3.33$ ,  $p = .001$ , was the only independent, significant predictor of role functioning related to emotional problems. Education  $b = .71$ ,  $t(318) = .57$ ,  $p = .57$ , gender,  $b = -6.05$ ,  $t(318) = -1.53$ ,  $p = .13$  and positive affect,  $b = -.02$ ,  $t(318) = -.07$ ,  $p = .95$  were not.

### **Workplace Positivity and Energy and Fatigue**

As predicted, vigor,  $b = 8.53$ ,  $t(319) = 5.41$ ,  $p < .001$ , was an individual, significant predictor of higher energy. Contrary to my hypothesis, absorption was a significant negative predictor of greater energy,  $b = -10.03$ ,  $t(319) = -3.37$ ,  $p = .001$ . Dedication was not a unique, significant predictor of higher energy,  $b = 1.58$ ,  $t(319) = .59$ ,  $p = .56$ . Additionally, unlike all the aforementioned results, positive perception of performance was not a unique, significant predictor of higher energy,  $b = .33$ ,  $t(319) = .42$ ,  $p = .68$ . Of the covariate variables education  $b = 3.18$ ,  $t(319) = 3.33$ ,  $p = .001$ , and positive affect  $b = .77$ ,  $t(319) = 5.23$ ,  $p < .001$ , were significant predictors of higher energy. Gender,  $b = -3.67$ ,  $t(319) = -1.95$ ,  $p = .052$ , was a marginally significant predictor of higher energy, while age was not associated with higher energy,  $b = 1.17$ ,  $t(319) = 1.33$ ,  $p = .18$ .

### **Workplace Positivity and Bodily Pain**



As predicted, vigor,  $b = 9.27$ ,  $t(321) = 4.61$ ,  $p < .001$ , and positive perception of performance,  $b = 3.56$ ,  $t(321) = 3.54$ ,  $p < .001$ , were individual, significant predictors of less bodily pain. Contrary to my hypothesis, absorption was a significant negative predictor of less bodily pain,  $b = -4.29$ ,  $t(321) = -2.37$ ,  $p = .02$ . Additionally, dedication was not a unique, significant predictor of less bodily pain,  $b = -2.71$ ,  $t(321) = -1.67$ ,  $p = .10$ . No covariate variables were significant predictors of less bodily pain including, age  $b = .79$ ,  $t(321) = .71$ ,  $p = .48$ , gender  $b = -3.67$ ,  $t(321) = -1.54$ ,  $p = .13$ , education,  $b = .54$ ,  $t(321) = .73$ ,  $p = .47$ , and positive affect,  $b = -.24$ ,  $t(321) = -1.27$ ,  $p = .21$ .

## CHAPTER 5

### DISCUSSION

Insight regarding how positive phenomena such as optimism, positive affect, and happiness affect health is a growing research area (Aspinwall & Tedeschi, 2010; Cohen, et.al., 2003; Davidson, Mostofsky, & Whang, 2010). As this area of research expands, a gap in understanding the relationship between work-stress, work-engagement, and health exists (Nelson & Simmons, 2003). This study presents a modest step towards understanding the association between work-related positivity and health. This study was designed to test whether positive perception of work-performance and work-engagement were positively associated with greater health ratings including general, overall health, greater physical and social functioning, emotional well-being, role functioning related to physical health or emotional problems, greater energy/less fatigue, and less bodily pain. I predicted that higher, reported perception of performance as well as greater work-engagement as measured by greater vigor, dedication, and absorption would be positively associated with the aforementioned health ratings, while controlling for age, gender, education, and positive affect. Largely, the results of this study both support and reject this prediction. Positive perception of work-performance does seem to be related to many, but not all, health ratings. Work-engagement is both a positive and negative predictor of health ratings.

The findings of this research contribute to both occupational and positive psychology literature in the following respects. First, I demonstrate an association between workplace related, positive phenomena, conceptualized as perception of work-performance and vigor, with high ratings of health. Secondly, I demonstrate a negative

relationship between work-engagement, specifically, absorption and dedication, to high ratings of health, suggesting that not all forms of work-engagement are better for health. Thirdly, these findings suggest many avenues for further, more focused, investigations of work-stress, work-engagement, and health.

## **Discussion of Results**

### **Positive Perception of Work Performance**

To understand the effects of working, on an individual's well-being, psychologists have made an effort to shift focus from addressing work-related “mental illness” to “mental wellness,” studying “work engagement” as an opposite to “burnout”(Bakker et al, 2008). I operationalized positive phenomena in the workplace, or workplace positivity, partially, as a high rating on an item adapted from a measure concerning academic performance used by the CDC and in the aforementioned pilot study (Pate, Heath, Dowda, & Trost, 1996). I predicted that a high, or positive, reported perception of work-performance would be independently related to overall, greater health, greater physical and social functioning, emotional well-being, better role functioning related to physical health or emotional problems, greater energy/less fatigue, and less bodily pain. This hypothesis was partially supported. Positive perception of work-performance was significantly associated with all measures of aforementioned health ratings except for energy and less fatigue.

There is little, directly related evidence of this association in current literature. For example, in a study examining work-stress in military personnel, approximately 27% of 809 participants reported high levels of workplace stress; however, workplace stress was also significantly related to impaired work-performance, low ratings of self-reported

health, and negative perceptions about a participant's workplace superiors (Pflanz & Ogle, 2006). In a meta-analysis of 101 studies by Spector (1986), higher ratings of job-performance and less somatic and emotional symptoms were associated with high decision latitude in the workplace; however, a direct relationship between perceived job-performance and less physical and emotional symptoms, as well as other health ratings, was not established. In a related study using data from the US National Workplace Health and Safety survey, the relationship between workplace aggression and job performance was fully mediated by job attitude and overall health (Schat & Frone, 2011). While these studies examine both job-performance and health, they do not probe their direct association as in this study.

In a recent position paper, Bakker, Schaufeli, Leiter, & Taris, (2008), suggest that work-engagement, a positive, fulfilling, affective-motivational state of work-related well-being is an important, emerging concept in occupational health. The UWES conceptualizes work engagement in terms of three characteristics: vigor, dedication and, absorption (Bakker et al., 2008).

### **Vigor**

Vigor is defined as energy and mental resilience at work, as well as a willingness to expend effort while working (Schaufeli & Bakker, 2004). I partially operationalized workplace positivity as work-engagement, as vigor (as measured by the UWES). I predicted that a higher rating of vigor would be positively associated with overall, greater health, greater physical and social functioning, emotional well-being, better role functioning related to physical health or emotional problems, greater energy/less fatigue,

and less bodily pain. This hypothesis was confirmed; vigor was associated with all of the aforementioned health ratings. Although there is little evidence suggesting that vigor is associated with good health ratings, this finding is similar to recent findings from a study by Torp, and colleagues (Torp, Grimsmo, Hagen, Duran, & Gudbergsson, 2013). Torp and colleagues (2013) find that work-engagement mediates the relationship between insufficient job resources and depression, a measure of emotional well-being.

### **Dedication**

Dedication is defined as being proud of one's work as well as the acknowledgement that one's work is meaningful or has significance- one's work makes a difference (Schaufeli & Bakker, 2004). I operationalized workplace positivity, partially, as dedication (as measured by UWES). I predicted that a higher rating of dedication would be positively associated with overall, greater health, greater physical and social functioning, emotional well-being, better role functioning related to physical health or emotional problems, greater energy/less fatigue, and less bodily pain. This hypothesis was not confirmed. Dedication was not associated with any of the aforementioned conditions except physical functioning. There was a significant, negative relationship between dedication, and physical functioning. A reason for these relationships may be that, perhaps, individuals that report high levels of dedication may perceive their work to be worthwhile, however, are not protected against the copious stressors that may exist at work. A good example of this is in the case of social workers. Many social workers perceive their work to be worthwhile as well and report that they are dedicated to their work; yet, many still experience exhaustion, and high demands (Foo, 2013). Further,

dedication has sometimes been compared to involvement (Hallberg, & Schaufeli, 2006) and job involvement appears not to be related with health (Brown, 1996)

### **Absorption**

Absorption is defined as being cheerfully enthralled by one's work, as well as finding it difficult to detach one's self from the task at hand (Schaufeli & Bakker, 2004). I predicted that a higher rating of absorption would be positively associated with overall, greater health, greater physical and social functioning, emotional well-being, better role functioning related to physical health or emotional problems, greater energy/less fatigue, and less bodily pain. This hypothesis was not confirmed. In fact, absorption was negatively associated with social functioning, emotional well-being, role functioning related to physical health and emotional problems, more energy, and less bodily pain. This means that as ratings of absorption increase, all health ratings worsen. This effect is the complete opposite of what I predicted. One possible reason for this effect may be that individuals with greater ratings of absorption may be overly devoted to their careers/jobs. Thus, these individuals may ignore, or, not be conscious of their bodies' needs, such as eating nutritiously dense meals, being active while at work, taking sufficient breaks from work, working late hours, and neglecting family or social needs. Some authors have argued that absorption, a component of work-engagement, may have some common characteristics with a workaholic that could have a negative correlation with health (Shimazu & Schaufeli, 2009).

## **Limitations**

There are aspects of this research that may limit the completeness of these findings. Firstly, the sample was taken by convenience through a crowd-sourcing platform- Amazon.com's, M-Turk. Participants in the study may not be representative of the true population of working adults. Secondly, all variables were measured simultaneously using a cross-sectional design, thus, causality of the relationships discussed cannot be assumed in any regard. It is possible that individuals with greater health outcomes may exhibit more vigor and perceive themselves to be better employees. It is also possible, and more plausible, that the relationship between workplace positivity and health is bi-directional, with health influencing perceived performance and engagement and vice versa. Also, the nature of the variables I investigated warrants a longitudinal examination. Thirdly, health behaviors were not measured, or controlled for in this study. Health behaviors (or lack there of) may be an important mediator for the relationship between workplace positivity and health. Finally, each health rating was examined as a dependent variable in a separate model. The use of structural equation modeling, along with a larger sample, could allow for each dependent variable to be considered simultaneously, and the bi-directional nature of workplace positivity and health could also be tested.

## **Practical Implications and Future Directions**

There are various practical implications for this research. First, these findings can give employers an idea of aspects at work that can bolster employee's health and well-being. These may include work-based programs that recognize employees' strengths in an attempt to bolster their perception of performance at work, as well as address a

positive work-life balance to increase mental resilience, or vigor, and reduce over-exertion on the job. There is an interest in reward-based, health-care benefit systems within employers (Volpp, Asch, Galvin, & Loewenstein, 2011). These systems "reward" an employee for a good health status, non-smoking status, and low body mass index through lower health-insurance costs. These findings could be incorporated in to these work-based, health programs to offer a holistic approach to encouraging work-life balance and health.

A natural, next step for this research is examining these variables in specific fields including, but not limited to education and teaching, social work, nursing, police-work, business, and construction to ascertain any differences amongst these career fields. As mentioned before, a longitudinal examination of these variables would provide a clearer picture of how work-positivity and stress can impact health over time. Other variables such as personality (Lee, Ashford, & Bobko, 1990), and health behaviors (Toker & Biron, 2012) should be considered as potential mediators between workplace positivity and health. Additionally, research in to other possible aspects of positivity that are specific to the workplace will provide a more balanced idea of what workplace positivity is conceptually.



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