Psychological Net Worth: Finding the Balance between Psychological Capital and Psychological Debt

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by

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This multi-level study examined a proposed framework of psychological net worth that builds on the current psychological capital conceptualization of positive psychological assets provided to an organization by articulating the construct of psychological debt or those psychological liabilities in an organization. By describing psychological debt as a collection of negative attributes that occur at the individual level for individuals that hamper productivity, morale, and effectiveness in organizations, this framework of psychological net worth proposes the need to create a psychological balance sheet of psychological capital and debt. Psychological debt is described using the dimension of emotional labor, job insecurity, job stress, job deviance, and stigmatic injustice. It was proposed that while the positive traits of psychological capital (hope, optimism, resilience and self-efficacy) increased positive organizational outcomes (organization commitment, organizational citizenship behaviors, professionalism and subjective-wellbeing), psychological debt (emotional labor, job deviance, job insecurity, job deviance and stigmatic injustice) brought into the organization by these individuals would diminish those positive organizational outcomes.

Data were collected from 166 third and fourth year medical students and 56 physician mentors in a Midwestern medical school. Students were embedded within 56 mentoring groups with an average group size of 2.41. Beyond simple statistics, a Hierarchical Linear Modeling (HLM) analysis was used to determine within-group and between-group effects. The results
revealed several significant relationships between psychological capital and psychological debt individually with organizational outcomes. In addition, there were several significant relationships that emerged as a result of the multi-level modeling, including an interactive effect between psychological capital and psychological debt on organizational outcomes.
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CHAPTER I

The greatest tragedy in America is not the destruction of our natural resources, though that tragedy is great. The truly great tragedy is the destruction of our human resources by our failure to fully utilize our abilities, which means that most men and women go to their graves with their music still in them.

Oliver Wendell Holmes

In an increasingly complex world, organizations are discovering that in order to maintain a competitive advantage, it is essential to focus on their most valuable resource---the assets provided by their members. The tragedy within many of those organizations however, is the failure to utilize the gifts provided by individual members, inhibiting the potential for growth and development while languishing in mediocrity. In a shift from decades of focusing on a deficit model of organizations that emphasized the liabilities or negative aspects of members, the field of organizational development has turned attention toward the positive, or those assets and benefits provided by their members that ultimately contribute to the success of the organization (Ployhart & Moliterno, 2011). The challenge with this focus becomes more complex in identifying tangible, measurable behaviors that have a direct impact on performance and effectiveness. Defining this construct has motivated researchers to test not only for antecedents to positive assets but in addition, to attempt to identify desired organizational outcomes resulting from this positive approach.

Emerging within the field of positive organizational development, psychological capital has become a prominent construct with extensive conceptualizations that preceded empirical inquiry (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007). This viewpoint emphasizes what is good or positive in organizations, extending work from the positive organizational behavior movement with origins in positive psychology (Luthans, 2002).
Based on the work from this discipline, psychological capital has emerged as a construct that identified positive psychological resources brought by individuals into an organization. Within this construct are four components that emerged to be essential, including hope, optimism, self-efficacy and resilience. These four psychological resources are combined to describe individuals’ synergistic capacity allowing them to function at a higher capacity than possible with any of the individual components alone. The resulting psychological resource construct was developed into a testable measure known as Psychological Capital (PsyCap) (Luthans et al., 2007).

Psychological capital has been presented as a valuable resource leading to a positive organizational climate and positive work performance (Luthans, Norman, Avolio, & Avey, 2008). Research has linked positive psychological resources to desired outcomes, including a reduction of negative influences such as absenteeism, turnover, and counterproductive work behaviors (Walumbwa, Peterson, Avolio, & Hartnell, 2010). Conversely, psychological capital has also been linked to the addition of positive outcomes, such as organizational commitment, effectiveness, satisfaction and performance. A review of the literature indicates that psychological capital impacts positive attitudes and behaviors that could facilitate organizational effectiveness as well as impacting negative attitudes and behaviors that might inhibit organizational effectiveness (Luthans et al., 2008).

However, studying the psychological assets of an organization, such as psychological capital, is akin to studying only the assets of a bank ledger - at first it looks highly positive and promising, until attention is given to the liabilities column. Organizations that attend to only their assets while ignoring their liabilities will quickly become unstable and unviable. From an organizational behavior standpoint, attention must be paid to both the assets and the liabilities of
an organization, which will allow for estimating its psychological net balance and a more complete view of organizational psychological health. While the focus on the positive contributions of psychological capital to an organization is important and provides a balance to a deficit model of organizations, there remains a need to identify potentially negative influences that may inhibit or neutralize those positive contributions. Presence of assets within an organization does not assume absence of negatives within the same organization. An organization with tunnel vision focusing only on those assets provided by psychological capital will likely produce a view that may be skewed. The undercurrent of negatives, if ignored or denied, may erode psychological capital and thus reduce organizational effectiveness. Because organizations are complex and the individuals who come into organizations bearing psychological capital are embedded within the context and culture of the organization, it is wise to create a holistic picture that includes both the contributions of the positive and the detrimental effects of the negative (Caza & Caza, 2008).

To advance this dialogue, a framework of psychological debt, to be considered in concert with psychological capital, is proposed. Psychological debt consists of those elements that may detract from individual and organization effectiveness. Based on a review of the literature, constructs that emerged as potentially negative and could be included in psychological debt were emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice. Even when individuals bring psychological capital into an organization with all of its benefits, they may also be carrying negative attributes and attitudes that diminish the positive effects of their capital, creating burden and debt. Viewed in concert with psychological capital, psychological debt allows organizations to create a more realistic assessment of the state of their organization, thereby creating a mechanism to foster psychological capital growth and development while
working to eliminate those elements that create psychological debt. By considering both the psychological capital and the debt, the researcher is taking a more accurate accounting of organizational psychological health.

This research study proposes the construct of psychological debt - consisting of the psychological liabilities that individuals possess that hamper, upend, or impede organizational progress, morale, and effectiveness. It is not the intention to return the dialogue in organizational behavior to a focus on negativity, obsessing over what is wrong in organizations, but rather to add balance to the analysis of an organization’s psychological well-being. By creating a psychological balance sheet of capital vs. debt, organizations may leverage their capital while decreasing their debt. The goal of the organization is to operate in the “black” of psychological assets, creating greater psychological capital while decreasing psychological debt and establishing a “psychological net worth” contributed by individuals to an organization.

**Purpose Statement**

The purpose of this research was to examine the impact of psychological debt on the positive outcomes created by psychological capital. As individuals bring the benefits of psychological capital (*hope, efficacy, optimism and resilience*) into the workplace, positive organizational outcomes are likely to occur (*organizational citizenship behaviors, organizational commitment, professionalism and subjective well-being*). However, the presence of psychological debt (*emotional labor, job deviance, job insecurity, job stress and stigmatic injustice*) is likely to diminish or mitigate those positive outcomes. Results from this study will contribute to the leadership and organizational development fields in several ways. If, indeed, the presence of psychological debt diminishes positive organizational outcomes created through psychological capital, it would benefit leaders of organizations to work toward decreasing or
eliminating those factors creating psychological debt while providing support and development of psychological capital within members. Figure 1 illustrates the how psychological capital and psychological debt together create a framework of psychological net worth. Creating a sense of “psychological net worth” will provide a comprehensive and realistic assessment of organizations and allow leaders to work to leverage assets while decreasing liabilities.

![Diagram of Psychological Net Worth Model]

**Research Questions**

1. What is the impact of psychological capital on organizational outcomes?
2. What is the impact of psychological debt on organizational outcomes?
3. What is the impact of psychological debt on the positive organizational outcomes provided by psychological capital?

**Delimitations and Limitations of the Study**

This study does not attempt to develop a comprehensive construct of psychological debt using the five factors of emotional labor, job deviance, job insecurity, job stress and stigmatic injustice. While valuable information emerged with the population studied, it cannot be generalized to other groups, industries or organizations. Identified variables of organizational outcomes and psychological debt were not comprehensive and offered only a partial assessment of those constructs.
Significance of the Study

This is a potentially rich area of study. The organizational development field is focused on the benefits of psychological capital and positive organizational behaviors and yet may be ignoring factors that diminish or mitigate the positive effects of those assets. This study developed and tested a framework whereby leaders of organizations may take into account both assets and liabilities brought into the organization that may impact the quality of potential outcomes. This initial empirical study will provide the foundation for further testing this concept of identifying the construct of psychological debt as well as the impact on positive organizational outcomes. In addition, the results will be significant to leadership development, human resources management and intervention strategies implemented within organizations.
CHAPTER II

Review of the Literature

In order to create a foundation for this study, this chapter provides a review of the existing literature on the following; organizational outcomes (organizational commitment, organizational citizenship behaviors, professionalism and subjective well-being), psychological capital (hope, optimism, resilience and self-efficacy) and psychological debt (emotional labor, job deviance, job insecurity, job stress and stigmatic injustice). The resulting hypotheses exploring the impact of psychological debt on the organizational outcomes provided by psychological capital will be developed.

Research on Organizational Outcomes

Determining an organizations’ psychological net worth requires identification of not only the factors that provide assets (psychological capital) and deficits (psychological debt), but also those indicators that define those outcomes that contribute to the success or failure of that organization. In order to be competitive in today’s challenging environment, organizations need to determine the desired results – those attitudes and behaviors that will contribute to the success not only of the employees but to the organization as a whole. Those desirable outcomes, although not comprehensive, that have been chosen with the context of this study are organizational citizenship behavior, organizational commitment, professionalism and subjective well-being. These four outcomes have emerged within the literature as contributing to the enhancement of organizational effectiveness and success.

Organizational Citizenship Behavior

Organizational Citizenship Behavior (OCB) was defined as desirable behaviors that are not prescribed by or enforced in the existing job role, but practiced at the option of the individual
employee. These discretionary behaviors, deemed as beneficial to the organization, are not directly or explicitly recognized by the formal reward system and as such, omission is not considered punishable. These are behaviors are extra-role, or those above and beyond what is generally expected (Avey et al., 2010).

Originally, OCB was conceptualized with two dimensions: altruism, or behavior targeted specifically at helping individuals and secondly, generalized compliance, or behavior reflecting compliance with general rules, norms and expectations. Later, five OCB dimensions were identified by Organ (1994), consisting of altruism, courtesy, civic virtue, conscientiousness and sportsmanship. Based on these original conceptualizations of OCB, Podsakof et al. (2000) further supported the five dimensions with the following definitions: altruism (the helping approach of the members as in those behavior that covers help for co-workers that have a heavy work load and/or to orient new people about job tasks), conscientiousness (obeying rules, following timely breaks, punctuality), sportsmanship (willingness to tolerate less than ideal circumstances without complaining and refraining from activities such as complaining and petty grievances), civic virtue (behavior indicating that they responsibly participate and rationally show concern for the life of the organization) and courtesy (behavior of individuals that is aimed at preventing work-related problems with others).

The impact of OCBs on the organization was believed to be significant---that these extra-role behaviors could maximize the efficiency and productivity of both the employees and ultimately, to the effective functioning of an organization. To further support this claim, OCBs have been linked to a number of positive organizational outcomes, including reduced absenteeism (employees avoiding unnecessary absences) and reduced turnover, leading to increased ability of workgroup performance. In addition, positive consequences include
increased employee satisfaction and organizational loyalty with those exhibiting positive OCB behaviors while also contributing to consumer loyalty and satisfaction (Chahal & Mehta, 2010). Behaviors that are considered to be OCBs are those that enhance organizational performance by increasing productivity, freeing up resources, reducing the need to devote scarce resources to maintenance and helping to coordinate activities both within and across work groups. These positive behaviors strengthened the organization’s ability to attract and retain the best employees, increased the stability of the organization’s performance and enabled the organization to adapt effectively to environmental changes (Podsakoff et al., 2000). Overall, positive OCBs create a positive environment which enhanced the morale of employees as well as a sense of belongingness, resulting in both stability of workgroup performance as well as adaptability to meet change and challenges within a competitive work environment (Chahal & Mehta, 2010). Organizations that enhance, develop and promote organizational citizenship behaviors will benefit from these positive outcomes.

Organizational Commitment

Organizational commitment (OC) has garnered increasing interest for organizations because of positive organizational outcomes (Wasti, 2003). Organizational commitment by definition, is the relationship that an employee has with an organization which includes three basic components; 1) an affective component that refers to the employees’ emotional attachment to, identification with and involvement with the organization, 2) a continuance component that refers to commitment based on the costs associated with leaving the organization and 3) a normative commitment that refers to the employees’ feelings of obligation to remain with the organization (Wasti, 2003). To better understand an employee’s relationship with an organization, Meyer and Allen (1991) proposed analyzing all three components simultaneously.
These components were seen as a psychological state where an employee experiences each one to varying degrees and characterizes the employee’s relationship with the organization, including decisions to stay with or discontinue membership within that organization. For example, an employee may have a low affective commitment to the organization, but experiences a strong need to remain with the organization due to either fear of leaving or a sense of loyalty to that organization. Employees’ affective commitment indicates wanting to stay with an organization while their continuance commitment indicates a need to stay with the organization and their normative commitment leads them to stay with an organization because they ought to do so (Meyer & Allen, 1991).

This model of organizational commitment has been found to extend across various occupations while consistently impacting organizational outcomes (Irving, Coleman & Cooper, 1997). As organizational commitment is seen as an attachment to and identification with an organization, it has also been linked to positive organizational outcomes such as reduced absenteeism and turnover (Wasti, 2003). When organizations factor the costs of employee turnover and the potential loss of their human resources, commitment is seen as a quality in employees that organizations desire and wish to enhance.

Professionalism

The emphasis on professionalism is expanding across a wide number of disciplines as an important outcome measure. Professionalism, once viewed as primarily found within the certain careers viewed as “professional”, such as medicine or law, has expanded to a wide variety of fields including education and business. While the attributes of a professional encompass education and training, they also include an attitude representing levels of identification with and commitment to a particular profession (Hwang et al., 2009). These professional attitudes are
linked to values and operate as basic axioms for decisions about appropriate ways to behave within that profession. Across disciplines, attitudes that promote professional behaviors are rooted in a core set of humanistic values, including honesty, integrity, compassion, respect and empathy. These attitudes are consequently identified through a set of proscribed behaviors and actions that reflect on the identification with a professional role and include ethical and moral actions, clinical competence, communication skills, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008). Also included in the concept of professionalism is a code of ethics and a sense of commitment to those being served (Elliott et al., 2009). Additional constructs have been explored within professionalism, such as accountability, autonomy, inquiry and collaboration (Baumann & Kolotylo, 2009). With a variety of constructs explored, professionalism is essentially comprised of a set of values, behaviors and relationships that underpin the social contract between those in the profession and those they serve (O’Sullivan & Toohey, 2008).

Because professionalism has strong roots within the field of healthcare, five dimensions of professionalism have emerged as formulated by Swick (2009) as a normative definition that accounts for physician-action, both on an individual and collective basis. He includes: 1) **Subordinating Self-interest** (subordinate one’s self-interest to the interest of others, 2) **Ethics and Moral Values** (adhere to high ethical and moral standards, 3) **Humanistic Values** (evince core humanistic values, including honesty and integrity, caring and compassion, altruism and empathy, respect for others and trustworthiness), 4) **Accountability** (exercise accountability for oneself and for others and 5) **Self-reflection** (incorporate self-reflection about one’s actions and decisions). As one of a multitude of models of professionalism emerging from healthcare, the one provided by the American Board of Internal Medicine (ABIM) is similar in that it describes
the core of professionalism as constituting those attitudes and behaviors that serve to maintain patient interest above physician self-interest and includes altruism, respect for others, honor, integrity, ethical and moral standards, accountability, excellence, duty and advocacy (Archer et al., 2008). The healthcare sector is increasingly emphasizing the importance of professionalism due to rapid changes and increased complexity of the demands within this field. While originating within the healthcare sector, these same elements of professionalism are emerging as essential in a number of disciplines and industries.

Professionalism is a complex construct and difficult to assess. Many approaches have been pursued, including assessments of individuals’ perceptions, reasoning, motivations and attitudes related to professionalism. In addition, some authors have argued that assessment needs to not only address behaviors, but also contextual and environmental features associated with professional behavior (Blue et al., 2009). As organizations recognize the beneficial outcomes provided by the development of professional behaviors, attitudes and motivations of their employees, it will become increasingly important to focus on the development, promotion and enhancement of professionalism.

Professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates in nurses (Hwang et al., 2009). Conversely, individuals who exhibit unprofessional behavior early in their career, as in medical school, tend to continue that trend into their practice (Rademacher, Simpson & Marcdante, 2010). There is evidence linking unprofessional behavior with adverse clinical practice outcomes and is the most common reason for physicians to receive disciplinary action (O’Sullivan & Toohey, 2008). Medical error and poor health outcomes have been linked to professionalism issues, i.e. 35% of iatrogenic injury relates to failure of professionalism, in contrast to those injuries resulting from
inadequacies of knowledge (1% of injuries) (O’Sullivan & Toohey, 2008). While there is paucity of research outcomes in other fields, there is a call for professionalism to cope with ethical and moral issues along with challenges in meeting higher level standards and goals. While the concept of professionalism can incorporate a wide variety of definitions across a variety of occupations, most would agree that it is a desirable quality of an organizational member that leads to positive organizational outcomes.

Subjective Wellbeing

Subjective well-being (SWB) is an umbrella term used to describe the level of well-being people experience according to their subjective evaluations of their lives. It is essentially an index describing an overall perception of the quality of life. While most people live in objectively defined environments, SWB is based on the concept that it is their subjectively defined worlds that individuals respond to (Keyes, Shmotkin & Ryff, 2002). Subjective well-being is essentially a long-term assessment of one’s life that includes both affective and cognitive components as opposed to a happiness rating which is a reflection of an immediate experience. The affective subjective evaluation occurs within individuals’ experiences and may include both positive and negative evaluations of judgments and feelings about life satisfaction, including interests and engagements. SWB has been confirmed in numerous studies as the confluence of life satisfaction and includes both positive affect and negative affect (Keyes, Shmotkin & Ryff, 2002). In addition, this construct has been studied as a cognitive process of judgment and attribution which includes constituents of emotional experience, goal-related behavior, time perspective, short-term and long-term effect of life events and with cross-cultural variability (Keyes, Shmotkin & Ryff, 2002). Subjective well-being is a construct that concerns optimal experience and evaluations of their lives. Self-report measures are commonly used to
assess subjective well-being that require a global evaluation of life experience and how much they experience certain feelings and are rooted in the subjective standpoint of the respondent (Diener & Ryan, 2009).

High levels of subjective well-being are linked to a plethora of positive outcomes on both individual and societal levels, including better health and better social relationships. Affective reactions to life events reflect SWB as well as satisfaction with work, relationships, health, recreation, meaning and purpose (Diener & Ryan, 2009). In addition, individuals with high SWB are likely to have increased productivity, higher performance, more resilience on the job and more likely to show organizational citizenship behaviors. They are more likely to act in ways that benefit their communities and societies, such as higher rates of volunteerism, ethical behavior and interpersonal trust (Diener, Kesebir & Lucas, 2008). The link between subjective well-being and organizational outcomes is clear; an individual who perceives their overall life as satisfying and fulfilling is likely to provide a number of benefits to an organization.

Figure 2 illustrates the four components identified as desired organizational outcomes.

Figure 2: Organizational Outcomes
Research on Psychological Capital

Psychological Capital

The desire for enhanced positive organizational outcomes has lead to increased interest in the application of positive psychology to the leadership field. This focus is primarily due to research that linked positivity to enhanced well-being and performance at work (Walumbwa et al., 2010). As the concepts of positive psychology garnered more attention, these began to be applied to the fields of leadership and organizational development in the form of Positive Organizational Behaviors (POB). This focus was given increased attention as the study and application of positively oriented human resource strengths that can be measured, developed and effectively managed for performance improvement (Luthans, 2002). The benefits of the positive approach were found in the increased focus on strengths rather than weaknesses and assets as opposed to liabilities within individuals (Luthans et al., 2008). Rather than devoting efforts to fix the deficient, this positive approach recognized and developed employee strengths as a way to help employees navigate the increasingly challenging workplace (Avey, Luthans, & Jensen, 2009).

To identify and measure positive psychological resources, the core construct of psychological capital (PsyCap) was introduced to represent individuals’ positive psychological state of development (Luthans et al., 2007a). The concept of psychological capital differed from human capital (what you know in terms of knowledge, skills, abilities and experience), social capital (whom you know, including networks and relationships) and financial capital (what you have in terms of financial resources) (Avey et al., 2009; Luthans, Luthans & Luthans, 2004). Psychological capital was viewed as “who you are” and “what you can become” in terms of positive development (Luthans, Avey, Avolio, Norman, & Combs, 2006). While there are many
positive components that could potentially be included in psychological capital, Luthans et al., (2007a) created a standard of criteria for inclusion in the construct. To be included, a construct must: 1) be positive and relatively unique to the field of organizational behavior, 2) meet scientific criteria and must be based on theory and research, 3) should be measurable, 4) should be state-like (not trait-like) and therefore, developable and 5) must be related to work performance outcomes. Psychological capital, as a construct, represents an individual’s positive psychological state of development that is characterized by four psychological resources that are combined to describe individuals’ common synergistic capacity and include hope, optimism, efficacy, and resilience (Luthans et al., 2007a).

These four components have been shown to be conceptually and psychometrically distinct, yet sharing evidence of convergent validity among them and when combined, defines an underlying psychological resource for an individual to perform at consistently higher levels than possible with any of the components alone (Luthans et al., 2008). There is a common agentic capacity running throughout the four components of PsyCap which is the positive appraisal of circumstances and probability for success based on motivated effort and perseverance further identified as internalized agency, motivation, perseverance and success expectancies (Avey, Luthans & Youssef, 2010).

Hope

Hope, within the context of positive psychology, was described as a “positive motivation state that was based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals) (Snyder et al., 1996). Hope, as defined by Snyder et al. and to be included in PsyCap, consists of both “willpower” (agency) or determination to achieve their goals and “waypower” (pathways) or the planning to meet goals
Hope has been linked to positive organizational outcomes such as job satisfaction, employee satisfaction and organizational commitment. In addition, hope has been found to have a negative correlation with anxiety while protecting against perceptions of vulnerability, uncontrollability and unpredictability (Avey et al., 2009).

**Optimism**

Optimism was originally described as an explanatory style that attributes positive events to personal, permanent, and pervasive causes while attributing negative events to external, temporary, and situation-specific ones (Seligman, 1998). In contrast to a common view of optimism as “unrealistic and dismissive of fact”, it was defined within PsyCap as a positive outlook that is both realistic and flexible. Optimism was described as a view of the past that was lenient, a view of the present that was appreciative and a view of the future as opportunistic. The construct of optimism has been related to the work-related performance outcomes of decreased job strain while providing “extra protection” or a buffer against the negative effects of stress (Avey et al., 2009).

**Efficacy**

Efficacy, based on Bandura’s (1997) social cognitive theory, was defined as “individuals’ conviction about their abilities to mobilize the motivation, cognitive resources and courses of action necessary to successfully execute a specific task within a given context” (Stajkovic & Luthans, 1998). These convictions and beliefs held by individuals about their own abilities and resources, affect perception and interpretation of events (Avey et al., 2010). Individuals with low efficacy were convinced that efforts to address difficult challenges were futile and were more likely to experience negative stress symptoms while those with higher levels of efficacy were more likely to perceive challenges as surmountable given sufficient competencies and
effort (Bandura, 1997). Efficacy has been related to positive organizational outcomes of socialization and retention of new employees, increased organizational commitment and a reduction of turnover intentions (Avey et al., 2009).

**Resiliency**

Resiliency was described as the capacity to rebound or bounce back from adversity, conflict, failure and somewhat surprisingly, even positive events, progress and increased responsibility, all of which creates change and stress (Luthans, 2002). Resiliency was described as the most important positive resource to navigating a turbulent and stressful workplace, equipping individuals to adapt to change, maintain flexibility in order to meet demands and show more emotional stability when faced with adversity (Avey et al., 2010). Links have been made between resilience and employee performance, job satisfaction, organizational commitment, work happiness and an ability to deal with organizational change (Avey et al., 2009).

These four components of psychological capital were heralded for creating positive organizational climate and a positive work performance (Luthans et al., 2008). Mounting evidence linked psychological capital and performance as employees’ positive appraisal of circumstances and probability for success contributed to positive work outcomes while reducing counterproductive work behaviors (Walumbwa et al., 2010). The psychological capital of employees was found to have played a role in leveraging a positive or supportive organizational climate which can also contribute to performance (Luthans et al., 2008). In addition, psychological capital was seen as a positive state that contributed to higher levels of effectiveness and flourishing in organizations (Luthans & Youssef, 2007).

Leaders who had high psychological capital were seen as efficacious, optimistic, and resilient. These leaders were seen as putting forth the effort and persistence needed to succeed
along with tendencies for having positive expectations about their environment and the ability to bounce back from adversity or failure. Additionally, leaders who had high psychological capital improved follower performance through influencing individuals’ motivation and perseverance (Walumbwa et al., 2010). While psychological capital was positively related to performance and satisfaction, it was negatively related with absenteeism (Luthans et al., 2008). A recent study by Luthans (2007) using a formula for Return on Investment (ROI) showed that use of a PsyCap development micro-intervention with managers resulted in an increased ROI for the organization. The presence of psychological capital may improve not only the organizational culture, but also result in economic and financial returns (Toor & Ofori, 2010). As a core construct, PsyCap empirically has been found to predict performance and satisfaction better than any of the individual components (Avey et al., 2009).

Strong links between employee resources and organizational performance have been established through recent research wherein levels of employees’ psychological capital were found to impact attitudes and behaviors that could facilitate or inhibit positive organizational outcomes (Luthans et al., 2008). The presence of psychological capital within employees was linked to higher levels of job satisfaction and subsequent commitment to the organization (Youssef & Luthans, 2007). Employees with high psychological capital facilitated positive organizational change while those with lower psychological capital, such as cynical attitudes and deviant behaviors, were resistant to change and detracted from positive organizational change (Avey et al., 2008). A positive psychological state is believed to offer more resources to individuals’ cognitive processes and abilities to perform; i.e. employees with the resource of hope are more likely to be independent in their thought process, with self-efficacy may have an increase internal locus of control, with optimism may be able to generate alternative solutions for
problems and with resilience, may be able to see failure as a means to learn and improve.

Employee resistance, one of the biggest obstacles to organizational change, was neutralized through the positive resources of employees and was found to be a way to combat negative reactions to organizational change (Avey et al., 2008). Increased resources from positive psychological resources were asserted by Frederickson (2005) who found that positive enhanced and broadened thought-action repertoires increased the potential for proactive extra-role behaviors such as sharing creative ideas or making suggestions for improvement (Avey et al., 2010). In recent work, Avey, Luthans and Youssef (2010) found a positive relationship of psychological capital with extra-role organizational citizenship behaviors (OCBs) and a negative relationship with organizational cynicism, intentions to quit and counterproductive work behaviors, adding support for the role that the presence of psychological capital plays in positive organizational outcomes.

The presence of psychological capital is potentially an important resource for organizations that desire to be viable and competitive within a challenging environment. In addition to human, social and financial capital, organizations that have psychological capital are more likely to be psychologically healthy and consequently, are more likely to be competitive. Creation of strategies for the development of psychological capital within multiple levels of the organization may allow leveraging of their human resources in order to create a competitive advantage. With a psychological capital perspective, developable assets provided by members within an organization become increasingly valuable when integrated into an organizational strategy. Not only will organizations become more effective, they will become a highly desirable organization to work for, thus sustaining and growing this human resource asset. Development of psychological capital is likely to develop stronger psychological contracts with
employees, resulting in higher motivation and job satisfaction while reducing turnover and dissatisfaction. This organizational approach not only strengthens the organization, it also creates a unique ability for flexibility and adaptability with a resource that is not replicable by competitors (Toor & Ofori, 2010). Consequently, organizations are challenged to invest in the human resource strategies of recruiting, developing and retaining employees with high psychological capital. As these psychological capacities are leveraged, organizations are likely to see positive individual and organizational performance outcomes.

The four constructs of hope, optimism, resiliency and efficacy as combined to create psychological capital are illustrated in Figure 3.

![Figure 3: Psychological Capital](image)

**Need for a Balanced Perspective**

The introduction of positive organizational behavior and psychological capital has provided a much needed balance to the deficit model of organizations which for decades, focused on how negative or neutral phenomena impact a set of undesirable outcomes. The value of positive organizational behavior focus could be illustrated by using the analogy of health; eliminating illness does not necessarily create health. Likewise, the goal of eliminating pathological problems in organizations did not necessarily create positive and healthy practices...
that allowed an organization to thrive (Caza & Caza, 2008). While this approach is a refreshing change from the negative, the opposite, however, may also be true. To continue the health analogy a step further, while the emphasis on health is important, it may be shortsighted if an illness is present and thus, ignored. Likewise, focusing on positive organizational behavior while minimizing or ignoring the negative may provide only a skewed picture of the health of the organization. In a critique of positive psychology, Lazarus (2003) cautioned against making a false distinction between “positive” and “negative” human characteristics. In this critique, he warned against an overzealous positive approach that minimizes and dismisses negative aspects of life, such as stress and loss that often contribute to the development of individual strengths (Lazarus, 2003). It is essential therefore to view both the positive and negative as contributing to the whole; a focus on one while diminishing or negating the other—either positive or negative—provides a perspective that is both skewed and deceptive.

Avey et al. (2009) also cautioned that it may be shortsighted to ignore factors that may diminish the positive returns of psychological capital. A more traditional approach which perhaps was more negative in scope, when integrated with the positive, may paint a more complete picture of organizational life when taken together. Incorporating both positive and negative explanations of phenomena and constructs within the positive organizational literature, including what to do as well as what not to do, provides a more holistic picture. A multi-paradigmatic approach to provide insights into the complexities of organizational life, including both the positive and negative, is necessary for a complete and accurate view of the organization in terms of its needs identification and goal development (Caza & Caza, 2008).

A more complex view and integration of the positive and negative may allow examination of potentially coexisting phenomena rather than opposite, mutually exclusive ends
of a single continuum of elements (Avey et al., 2010). Using an historical perspective of organizational development as embedded in social science research, scholars have emphasized the complexity of contextual features and forces that shape behavior within social systems. Instead of relying on individual-level explanations for success or failure, it is important to examine the multiple factors that shape behavior within organizations. Although it is true that individuals make up an organization, organizational behavior is complex in the cross-level interactions between individuals and their work relationships, all of which are embedded in a broader organizational context. Because of this complexity, the study of positive psychological capital needs to be grounded in what is already well-established in organizational development literature (Hackman, 2008). Along with the individual level of analysis of psychological factors, there also needs a consideration of contextual factors and the cross-level interaction among individuals, groups and organizational context which shape outcomes (Avey et al., 2010). The benefits of positive psychological capital to an organization may be impacted by numerous complex organizational relationships and contexts.

The problem with emphasizing only what is right or positive in organizations is the risk of overlooking potentially destructive interpersonal and social influences that may weaken an organization. Specifically, individuals may bring assets to an organization, but may also bring their issues or baggage, which may counter-balance the overall contributions to the organization. Focusing only on individuals’ strengths while overlooking their weaknesses leaves organizations particularly vulnerable to its psychological liabilities. The assets-only emphasis also provides an overly simplistic or even unrealistic assessment of individuals’ value to an organization. Grandiose assessments are more likely in environments that focus on strengths alone and create overly optimistic estimations of value that may quickly dissipate with the
emergence of debts or liabilities. In addition, the presence of debt requires the use of energy resources to mitigate the negative effects of debt, thereby depleting energy that could potentially be focused in exhibiting and developing psychological capital. Organizations, in order to remain efficient and competitive, need to consider psychological capital in concert with its debt, thereby creating a more balanced view and evaluation of its psychological health.

Advocating a more balanced approach, Luthans and Avolio (2009) indicated that taking an advocacy position on either the positive or negative approach was not constructive. A focus on the negative will not by default create the positive and conversely, a focus on the positive will not by default mitigate the negative. The presence of positive capital does not indicate an absence of the negative psychological debt. While the possibility of the positive in the form of psychological capital is purported to actually undo the lingering effects of the negative, could conversely, the question be asked, “Can the negative (psychological debt) undo, or at least diminish the positive effects when left unchecked or ignored?”

*Proposed Psychological Debt*

A balanced picture of an organization needs to include not only those elements that benefit the organization, but also those that detract from individual and organizational effectiveness, creating burden and debt. While many individuals may bring assets to an organization, understood as psychological capital, they may also bring negative attributes and attitudes which foster negative working conditions that neutralize or eliminate their benefits. These detractors or liabilities are conceptualized as psychological debt. Effective organizations will not only work to leverage the assets of psychological capital by developing these assets, but also by identifying, evaluating and remedying liability elements of psychological debt.

Assessing the psychological balance consisting of both capital and debt will provide essential
information for organizations to operate in the psychological “black” and establishing what is essentially the “psychological net worth” contributed by individuals within an organization.

Identifying and defining those elements which create psychological debt creates a number of challenges. On the surface, the antithesis of psychological capital would likely be the inverse of each of the dimensions, where hope, optimism, efficacy, and resilience, would be countered by despair, cynicism, helplessness, and fragility, respectively. This would suppose that to be low in hope, individuals would start to exhibit elements of despair; to be low in optimism, individuals would start to exhibit cynicism; to be low in efficacy, one would start exhibiting helplessness; and to be low in resilience, one would become fragile. In essence, that supposes that each dimension operates on a clean continuum. However, constructs within the realm of organizational development have many dimensions of meaning and are not necessarily bipolar items, i.e. pessimists are not necessarily polar opposites of optimists, or that rewards have different, but not necessarily opposite functions than punishment (Hackman, 2008). It seems difficult or nearly impossible to display both hope and despair simultaneously. It follows that one low in hope, optimism, resilience or self-efficacy would also be low in psychological capital. The assumption that the psychological debt of an organization is best represented as the antonyms of psychological capital cannot be made or supported.

The proposed conceptualization assumes that psychological capital and psychological debt are separate by highly influential organizational factors that are exhibited by individuals and may actually co-exist simultaneously. While some emphasis on positive organizational scholarship and constructs such as psychological capital is helping individuals identify coping strategies for less-than-perfect work situations, that may not be enough. It perhaps becomes necessary to expand the horizon to develop a holistic picture of individuals within organizations
in terms of what resources they bring in (psychological capital) and how those resources simultaneously may be diminished (psychological debt). Organizations are consequently challenged to promote and develop the assets of psychological capital while working to decrease those elements creating psychological debt. It is imperative to focus not only on identifying and creating those organizational conditions that promote growth and learning, but also to explore ways to develop and manage the features of the social system within which individuals work (Hackman, 2008). One without the other may be counterproductive and fruitless.

In the proposed framework of psychological debt, both the relative assets and liabilities that individuals provide a balanced view of psychological well-being or psychological net worth to an organization. Psychological debt is described in this framework with five categories - emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice. Each was selected for the potential negativity that results when exhibited by individuals within organizational settings.

*Emotional Labor*

Emotional labor referred to the level of emotional investment necessary to accomplish a job. Hochschild (1983) first described emotional labor as the management of emotions to create an observable emotional display in exchange for a wage and argued that such patterns of behavior often resulted in emotional drain and burnout. There were three critical issues described; the emotional labor interaction, the experience of emotional labor and the personal consequences of performing emotional labor (Sass, 2000). When there was a match between displayed emotion and felt emotion known as *emotional harmony*, little energy was expended by the emotional work. However, when there was a difference between the two, a greater expenditure of energy was required due to the resulting *emotional dissonance* (Mann, 2004). In
order to reduce the dissonance, the worker expended energy to realign their feelings, contributing to a drain of emotional resources and a sense of loss of emotional control, resulting in strain and exhaustion. This drain on the employee could be resolved in one of two ways; the worker could alter the displayed feelings, known as *surface acting* or create an emotional shift to the appropriate feelings within themselves, known as *deep acting* (Brotheridge & Lee, 2003).

The emotional expression used to achieve the desired organizational outcome may differ from the actual experienced emotion and may be perceived as inauthentic even while it was seen as contributing to organizational goals (Miller, 2008). Thus, this emotional labor expended by workers may cause them to experience burnout, described as a chronic response pattern to stressful work conditions involving high levels of interpersonal contact. It encompassed three dimensions; emotional exhaustion (loss of feeling, trust, interest and spirit), depersonalization (emotional detachment from service recipients) and diminished personal accomplishment (depression, low morale, withdrawal) (Brotheridge & Lee, 2003).

Brotheridge and Lee (2003) identified duration, intensity, variety and surface or deep acting as critical elements in emotional labor contributing to burnout and job dissatisfaction. Burnout resulted in substantial costs for individuals as well as organizations, including deteriorating physical and mental health, deterioration of social and family relationships, decreased job performance, increased intention to leave, absenteeism and turnover (Mikolajczak, Menil, & Luminet, 2007). While burnout has been explored within various disciplines, the impact of burnout has been explored extensively within healthcare professions and has been shown to be common in medical professionals at all stages of training and practice resulting in suboptimal patient care, medical errors and reduced empathy (West et al., 2009).

Côté and Morgan (2002) acknowledged the potential repercussions of emotional labor
but also argued that emotional intelligence - with emotional regulation or mood regulation -
could reduce some of the negative consequences of emotional labor and even in some instances
lead to a positive emotional experience. Consequently, emotional intelligence could serve as
capital in the face of emotional labor and may offset some of the negatives that emotional labor
creates. However, in balance, emotional labor will likely have a negative impact on the affect of
individuals in organizations.

Emotional labor would likely diminish the benefits of psychological capital in
organizations. When employees experience the impact of emotional labor, the result may be
emotional exhaustion and decreased job performance, disrupting the positive flow of
organizational behavior (Brotherridge & Lee, 2003). Benefits brought to the organization
through an employee’s hope, optimism, resiliency and efficacy are mitigated by the negative
impacts of emotional labor, which detracts from organizational effectiveness and neutralizes its
assets. Repeatedly having to put emotions aside or embrace external emotions can cause a strain
and a labor that mitigates the positive benefits of psychological capital.

*Job Deviance*

Robinson and Bennett (as cited by Mount, Ilies, & Johnson, 2006) defined job deviance
as voluntary behavior of organizational members that violates significant organizational norms
and in so doing, threatens the well-being of the organization and/or its members. Also known as
*counterproductive behaviors*, these caustic behaviors are those which alienated colleagues and
inhibited attainment of organizational goals and interests (Mount et al., 2006). Two types of job
deviance have been identified; *organizational*, including behaviors directed toward the
organization such as tardiness, theft, and wasting resources and *interpersonal*, referring to
deviant behaviors directed toward people, including gossiping, verbal abuse, and stealing from
co-workers (Liao, Aparna, & Chuang, 2004). The interpersonal aspect may also include behaviors such as using intimidation, playing mean pranks, using racial slurs, cursing at others, rudeness, harassment and acts of physical violence (Mount et al., 2006).

Included in job deviance is workplace aggression, defined as negative acts that are perpetrated against an organization or its members and that victims are motivated to avoid (Hershcovis et al., 2007). Intention to harm was the motivation whereby actions were deemed aggressive (Beugré, 2005). Neuman and Baron (1998) have identified three dimensions of aggression; *expressions of hostility* with behaviors that were verbal or symbolic, *obstructionism* where passive behaviors were intended to impede or inhibit performance, and *overt aggression* whereby behaviors were violent or property was destroyed. Workplace bullying may also be viewed as aggression where negative behavior was persistent and systematic with either personal or work-related issues (de Cuyper & de Witte, 2009).

The result of these intentional acts was destroyed relationships and obstacles to organizational effectiveness. Job deviance was seen as a stressor that led to direct outcomes of fear and subsequently to a variety of negative psychological, physical and behavioral outcomes for both the individual and the organization (Schat & Kelloway, 2003). In addition, job deviance could lead to impaired cognition or affect as employees, feeling fear and anxiety, struggled to make sense of and reacted to the aggressive event, resulting in psychological and physical strain (Neuman & Baron, 1998). The reduction of employee performance due to workplace aggression was linked to the stressor model which suggested that workplace aggression directly affected the cognitive and emotional resources of employees, leaving them with less cognitive and emotional energy to focus on job performance. This depletion continued as victims of aggression ruminated about the experience, or focused energies on preventing, reducing or avoiding continued
aggression, leaving fewer resources available for performance effectiveness (Harcovcvis et al., 2007).

Additional research in the related areas of abusive supervision and workplace injustice supported the link between aggression and lower levels of performance (Beugré, 2005). In addition to the adverse individual effects, other effects were felt at the organizational level, including reduced employee morale, higher rates of absenteeism and turnover, as well as lower productivity (Mount et al., 2006). Negative work attitudes, such as job dissatisfaction, affective commitment, and turnover intentions resulted in job neglect, decreased job performance and diminished productivity (Schat & Kelloway, 2003). Much of the literature identified job deviant behaviors such as workplace aggression as a stressor that was negatively related to positive outcomes such as job satisfaction, performance, commitment and psychological and physical well-being. In addition, when experiencing aggression within the workplace, employees could hold the organization responsible, believing that organizations should prevent insider aggression, resulting in counterproductive behaviors that would diminish an organization’s effectiveness (Harcovcvis et al., 2009).

In this framework, the benefits of psychological capital are neutralized by job deviant behaviors. Employees possessing job deviance pollute the work environment with destroyed relationships, feelings of angst, division, hostility, negativity, and cause disruption to the organizational flow. In instances where job deviance is high, many of the benefits of psychological capital that would otherwise benefit organizations are neutralized. Assets brought to the organization through an employee’s hope, optimism, resiliency and efficacy are mitigated by the negative impact of job deviance, which detracts from the organizational effectiveness and provides organizations with a psychological liability that counters its assets.
Job Insecurity

The trend over the course of the last few decades with downsizing and restructuring has changed the nature of work as well as the contractual relationship organizations have with its workers (Huang, Lee, Ashford, Chen, & Ren, 2010). The resulting job insecurity is described as the perceived powerlessness to maintain desired continuity in a threatened job situation (Reisel, Probst, Swee-Lim, & König, 2010). Greenhalgh and Rosenblatt (2010) identified four components to job insecurity; desired continuity (wishing the job to continue), threat to the job (perceived threat whether or not it was real), job features at risk (losing desired features of the job) and powerlessness (having no control over the future of the job). It was the degree to which employees perceived their jobs, or important features of their jobs, to be threatened and to which they perceived themselves to be powerless to do anything about it (Reisel et al., 2010).

There were both cognitive (beliefs) and affective (emotions) components of job insecurity; the cognitive approach was the perception of the likelihood of negative changes to the job, including losing attractive features of the job or the job itself and the affective component was the concern, worry or anxiety about losing job features or the job itself (Huang et al., 2010). Thus, job insecurity was viewed as an individual-level perception specific to job loss and the perceived stability and continuance of one’s employment with an organization (Reisel et al., 2010). The experience of job insecurity went beyond the fear of losing a revenue stream or career opportunity, and also included the trauma of an abrogated psychological contract by bearing the mistakes made by others and the feelings of powerlessness to impact their own career trajectories (de Cuyper & de Witte, 2006).

Job insecurity was viewed as one of the most important stressors in work life, leading to feelings of uncontrollably and unpredictability (de Cuyper, Bernhard-Oettel, Berntson, de Witt,
& Alarco, 2008). It was the subjective appraisal of an environmental threat and has been identified as an “antecedent stressor”, causing physical, psychological and behavioral outcomes (Greenhalgh & Rosenblatt, 2010). As a result, employees were less satisfied with or less committed to their jobs and organizations while experiencing more physical and/or psychological problems (Reisel et al., 2010). A link has been created between job insecurity and negative emotions, such as anger, anxiety and burnout and with common mental disorders such as depression (Meltzer et al., 2009). While some research identified a positive motivational outcome of challenge with job insecurity, there was a defined link to decreased mental and physical health in employees (Greenhalgh & Rosenblatt, 2010). It has been linked to poor psychological well-being in employees (de Cuyper et al., 2008). In addition, job insecurity has also been linked to marital conflict and decreased family functioning (Gaunt & Benjamin, 2007).

Behavioral outcomes impacted by job insecurity included deviant behaviors and a decrease in organizational citizenship behaviors (Reisel et al., 2010). A growing body of research linked job insecurity with negative attitudes towards the job or the organization in terms of job satisfaction, organizational commitment or organizational trust (Staufenbiel & König, 2010). Responses to job insecurity resulted in a number of negative outcomes due to potential frustration of needs related to social participation, recognition and the potential loss of finances (de Cuyper et al., 2008). The impact on the individual could be behavioral withdrawal, resulting in a decrease of in-role performance as well as organizational citizenship behaviors, manifested in voluntary turnover or absenteeism (Staufenbiel & König, 2010).

Job insecurity experienced by employees brings a psychological debt to an organization that will neutralize many of the benefits of psychological capital. The proposed framework employs job insecurity to demonstrate how feelings of worry and insecurity weigh on the minds
of employees and mitigates their overall contributions to an organization. When employees experience the negative impact of job insecurity, the result is decreased physical and mental health, withdrawal behavior and a disruption of the positive flow of organizational behavior. These negative affects deteriorate the work climate in organizations and threaten the positivity that is so highly desired.

**Job Stress**

An increasingly competitive and changing work environment that includes technological change, global expansion, toxic work environments, heavier workloads, downsizing and demanding customers creates a stress-laden working environment. A recent study by the American Psychological Association (APA) indicated that work is the biggest stressor for 74% of Americans (Avey et al., 2009). Job stress has increasingly become a common and costly problem (Hayes & Weathington, 2007).

Lazarus (2003) provided the classic definition of stress as the perception of individuals that the demands of an external situation were beyond their perceived ability to cope with them. When that definition was applied to the world of work, job stress described the perception of an employee that work demands were beyond their perceived ability to handle them. Job stress was comprised of several factors; *job stressor* referred to work-related environmental conditions thought to impact on the well-being of the worker while *strains* referred to the psychological and physiological reactions by the worker to the stressor and *health outcomes* referred to more enduring negative health states thought to result from exposure to job stressors (Hurrell, Nelson & Simmons, 1998).

While aspects of job stress, such as time pressure and workload can create a challenge and actually motivate an employee, other aspects of job stress were identified as hindrance-
oriented and included work-related environmental conditions that consequently impacted the health and well-being of the worker (Hurrell et al., 1998). When the employee was required to deviate from normal or self-desired functioning in the work place as the result of opportunities, constraints, or demands relating to work-related outcomes, the result was both uncomfortable and undesirable. These deviations may result from anticipated or missed opportunities, constraints on goal-directed behavior or demands leading to important but uncertain outcomes (Parker & DeCotiis, 1983). A number of factors were found to contribute to workplace stress, including technological change, global competitive pressures, increased workloads, increased work travel, job insecurity, toxic work environments and managerial bullying (Avey et al., 2009). In addition, under or over-promotion, status incongruence and a lack of job security contributed to job stress (Iacovides, Fountoulakis, Kaprinis, & Karinis, 2003). Other job stress factors have been identified, including role ambiguity, role conflict and interpersonal relationships (Hurrell et al., 1998). While there are many models of job stress, the Demand-Control-Support model has gained attention in the literature, identifying three characteristics of work as predictors of worker health, productivity and motivation: job demand (deadlines, task coordination, cognitive effort), control (degree of decision latitude or autonomy) and social support (support and encouragement from others) (Karasek, 1998).

The cost of job stress is high to both individuals as well as organizations. While the impact of stress depended on the intensity of the stress, its duration, the number of operative stressors and available alternatives, stress had potential severe negative individual and organizational consequences (Parker & DeCotiis, 1983). Stressors that included elements such as role ambiguity and organizational politics were found to negatively impact job performance (Hunter & Thatcher, 2007). In addition, elements of inadequate control, frustrated hopes and
expectations causing job stress were found to lead to burnout and emotional exhaustion in employees (Iacovides et al., 2003). Job stress also had a detrimental impact on both individuals and organizational health with increasing organizational and societal health care costs (Hunter & Thatcher, 2007). On an individual level, job stress had been linked to mental health issues such as depression and anxiety as well as multiple physical disorders such as cardiac issues, diabetes and hypertension. Additionally, elements of inadequate control, frustrated hopes and expectations causing job stress were found to lead to burnout and emotional exhaustion in employees (Iacovides et al., 2003). Job stress carries human resource implications because of connections to undesirable organizational outcomes, such as job dissatisfaction, burnout and organizational withdrawal (Hurrell et al., 2007).

Job stress creates a decrease in mental and physical health while mitigating many of the potential benefits of psychological capital in organizations. Hope, optimism, efficacy, and resiliency may each be negatively impacted by job stress. As employees are plagued by excessive demands, less control and diminished support, exacerbated stress will erode the positive effects of their psychological capital. By ignoring or allowing elements of job stress to pervade, organizations are making themselves highly vulnerable to neutralizing the many strengths of its employees.

Stigmatic Injustice

Stigmatic injustice was derived from organizational justice theory and explored employee perceptions regarding the nature of organizational compliance systems in shaping their commitments to the employer. Several types of fairness perceptions were originally identified; distributive justice was that which refers to perceived equity in the allocation of organizational outcomes, such as material rewards or compensation, i.e. when individuals’ expectations and
desired outcomes are in line with the outcomes, they will perceive distributive justice,

*procedural justice* focused on the fairness and integrity of organizational decision-making processes, such as consistency and absence of bias, i.e. when individuals have a voice and influence in the decision-making process and perceive that procedures are based on consistent and unbiased processes and *interpersonal justice* which referred to the treatment during the process, i.e. if individuals are treated with respect and when information is shared, interpersonal justice is perceived (Johnson, Holladay, & Quinones, 2009).

Emerging from this foundation of justice research, *stigmatic injustice* described feelings of mistreatment or inequity that individuals experience in organizations stemming from negative attributions based upon personal characteristics and differences that demotivate individuals and result in alienated feelings (Howard & Cordis, 2010). Gifford, Barbuto, and Pennisi (2010) developed a framework of workplace injustice based on stigma or the attributions based on differences. This framework included five factors, including *functional stigma* (characteristics or attributes that classify a target differently are valued), *acknowledged stigma* (target is aware that others devalue characteristics or attributes, but does not negatively impact the target), *interpersonal enacted stigma* (target is negatively affected by the attitudes, behaviors or actions of others who devalue an attribute or characteristics of the target), *organizational enacted stigma* (stigma experienced due to organizational policies or norms that sustain stigmatization or lack of policies which protect targets from stigmatization), and *internalized stigma* (target accepts the legitimacy of the stigma and feels devalues self because of the stigma). The process of stigmatic injustice may lead to deleterious psychological and physical effects for a target of the stigma, particularly in cases of interpersonal enacted stigma, organizational stigma and internalized stigma where an employee feels devalued and alienated by individuals within the organization
and the organization itself (Gifford et al., 2010).

The impact of perceived injustice in the workplace was significant to both individuals and the organization (Barclay & Starlicki, 2009). Individuals who experienced unfairness often reported painful and enduring consequences, including emotional feelings such as anger, rage, shame and guilt (Howard & Cordis, 2010). In addition, physical and psychological health was impacted with increased anxiety, insomnia, depression, psychiatric disorders, exhaustion and coronary problems (Barclay, 2009). Individuals often experienced behavioral consequences to injustice by engaging in retaliation or sabotage (Bechtoldt, Welk, Hartig, & Zapf, 2007).

While perceptions of fairness lead to organizational commitment and effectiveness, the perception of injustice lead to alienative commitment, a negative form of attachment resulting from a forced course of action by environmental pressures, experienced loss of control and lack of alternatives (Howard & Cordis, 2010). This alienation was the result of a perceived helplessness and external control on an individual level and feelings of isolation and separation from others on the organizational level. Alienative commitment may erode pro-social behaviors and when confronted with injustice, resulting in a decreased emotional commitment to the organization and evaluation of authority, a withholding of genuine expression of feelings or acting in a retaliatory manner. These reactions were regarded as negative organizational behaviors, or those that may hurt colleagues or organizational effectiveness (Hershcovis et al., 2009).

Stigmatic injustice prevents workers from feeling comfortable in work environments and this discomfort will neutralize many of the benefits of psychological capital. Stigmatic injustice also leads to feelings of being treated unfairly and dissonance in the workplace. The repeated negative affect of stigmatic injustice may create such feelings of unfairness and alienation that
mitigates the benefits of their strengths. Organizations with policies and social structures that create and sustain stigma in the workplace are more likely to see diminished returns from psychological capital and less likely to realize their full potential.

The five components of emotional labor, job deviance, job insecurity, job stress and stigmatic injustice that have been identified as creating psychological debt are illustrated in Figure 4.

![Figure 4: Psychological Debt](image)

Organizations, while having an abundance of resources provided from psychological capital may be significantly impacted by individuals carrying negative attributes and attitudes that neutralize or diminish the positive effects of the capital. Consequently, it is important to consider the psychological balance sheet of the organization----examining the assets against the liabilities. When viewed as on a scale, do the resources of psychological capital outweigh the liabilities brought by psychological debt? Or conversely, does the debt outweigh the capital? The balance of psychological capital and debt are illustrated in Figure 5.

This research study proposes the creation of a psychological balance sheet of capital vs. debt, organizations may leverage their capital while decreasing their debt. The goal of the organization is to operate in the “black” of psychological assets, creating greater psychological
capital while decreasing psychological debt and establishing a “psychological net worth” contributed by individuals to an organization.

**Figure 5:** Balance of psychological capital and psychological debt

**Hypotheses**

Individuals bringing psychological capital into organizations will more likely contribute to higher levels of organizational effectiveness and performance in the following ways:

*Organizational Citizenship Behaviors.* Individuals higher in PsyCap would seem to be more likely to engage in OCBs than would those with lower PsyCap. Employees who are more positive are likely to exhibit more OCBs than employees who tend to be negative (Avey et al., 2010). Conversely, individuals high in PsyCap would be less likely to respond with counterproductive work behaviors such as workplace deviance because of increased resilience to workplace stressors. Individuals high in PsyCap would be expected to remain optimistic that the situation will improve, generate plans and pathways to change the situation for the better and feel efficacious in their abilities to persevere in the situation and continue being successful despite the adversity (Avey et al., 2010). Psychological debt experienced by individuals will decrease the
amount of organizational citizenship behavior. As an individual is burdened by the negative impact of emotional labor, job deviance, job insecurity, job stress, or stigmatic injustice, their psychological resources will become more depleted; i.e. individuals who experience marginalization and stigmatization within the workplace will find it more difficult to remain hopeful or optimistic and will likely drain the resources provided by resiliency. Over a period of time, individuals will expend resources to deal with their debt rather than build upon their assets of psychological capital.

**Organizational Commitment.** Individuals who are experiencing psychological debt will find it more difficult to feel a sense of loyalty or commitment to an organization; i.e. an individual who is experiencing job insecurity will have more difficulty experiencing a sense of commitment to the organization. As organizational commitment describes the relationship of individuals to the organization in which they work, those with high psychological capital will be more likely to maintain a sense of loyalty in the face of adverse environmental conditions. Individuals with high psychological capital will maintain an on-going relationship with the organization while those experiencing psychological debt will likely lose a sense of loyalty because of challenges within the work environment.

**Professionalism.** While professionalism has not been directly linked to psychological capital in the literature, the assumption could be made that an individual with high psychological capital is likely to develop a professional identity and to exhibit professional behaviors and attitudes. Conversely, an individual that is experiencing high psychological debt is unlikely to exhibit professional behaviors and attitudes; i.e. an individual who is experiencing workplace deviance is not likely to exhibit professional behaviors in their relationships to their colleagues or organization.
Subjective well-being. Individuals with higher levels of psychological capital are more likely to experience greater subjective well-being in terms of their work. With the psychological resources of hope, optimism, self-efficacy and resiliency, they are likely to have a more positive subjective interpretation of their work-life which will consequently impact their overall well-being. With these psychological resources, individuals will have a buffer that will help overcome some of the negative challenges of the work environment. However, individuals who are experiencing high levels of psychological debt are not likely to experience SWB; i.e. an individual who is experiencing emotional labor in the workplace may not have a sense of emotional or cognitive well-being on the job or with their overall evaluation of life.

Psychological capital creates a positive and supportive organizational climate which contributes to both individual and organizational performance (Luthans et al., 2008). In addition, it is linked to a positive appraisal of circumstances and probability for success, contributing to positive work outcomes while reducing counterproductive work behaviors (Walumbwa et al., 2010). It is predicted that psychological capital will contribute to positive individual and organizational outcomes.

Hypothesis 1a: Individuals’ psychological capital will be positively related to organizational citizenship behaviors.

Hypothesis 1b: Individuals’ psychological capital will be positively related to organizational commitment.

Hypothesis 1c: Individuals’ psychological capital will be positively related to professionalism.

Hypothesis 1d: Individuals’ psychological capital will be positively related to subjective well-being.
Psychological debt will detract from organizational effectiveness as identified in the elements of emotional labor (Mikolajzak, 2007), job insecurity (Greenlagh & Rosenblatt, 2010), job stress (Hunter & Thatcher, 2007), job deviance (Mount et al., 2006) and stigmatic injustice (Gifford & Barbuto, 2010). These components of psychological debt will reduce organizational effectiveness when emotional labor, job insecurity, job stress, job deviance and stigmatic injustice create a negative impact with reduced organizational commitment, higher turnover intentions, lower morale, less satisfaction and decreased workplace performance (Bechtholdt et al., 2007). It is predicted that these identified components of psychological debt will be negatively related to positive organizational outcomes.

*Hypothesis 2a*: Individuals’ psychological debt will be negatively related to organizational citizenship behaviors.

*Hypothesis 2b*: Individuals’ psychological debt will be negatively related to organizational commitment.

*Hypothesis 2c*: Individuals’ psychological debt will be negatively related to professionalism.

*Hypothesis 2d*: Individuals’ psychological debt will be negatively related to subjective well-being.

Psychological capital contributes to individual and organizational effectiveness and it is important for an organization to identify and develop these organizational assets (Avey et al., 2010). However, although there may be the presence of psychological capital existing within the organization, psychological debt may cancel out any benefits of psychological capital to the organization. Consequently, it would be beneficial for organizations to not only identify
psychological capital, but also the elements of psychological debt that may impact negatively on the organization. By analyzing the psychological capital present within an organization as well as psychological debt carried by the organization, a balance sheet may be created whereby an organization can evaluate if it carries a positive balance reflecting psychological capital assets or a negative balance reflecting psychological debt. Organizational development is challenged to create organizations that thrive in a complex world. Consequently, it is important for organizations to identify approaches in organizational development that will benefit the health of the organization (Luthans et al., 2008). An accurate assessment of the organization will depend on creating a realistic picture of both assets and liabilities carried by the organization (Caza & Caza, 2008). By recognizing psychological capital and psychological debt, an organization may leverage the benefits to the organization by working to increase and develop psychological capital as well as working to simultaneously reduce psychological debt.

*Hypothesis 3a: The relationship between psychological capital and organizational citizenship behaviors depends upon individuals’ psychological debt.*

*Hypothesis 3b: The relationship between psychological capital and organizational commitment depends upon individuals’ psychological debt.*

*Hypothesis 3c: The relationship between psychological capital professionalism depends upon individuals’ psychological debt.*

*Hypothesis 3d: The relationship between psychological capital and subjective well-being depends upon individuals’ psychological debt.*

The framework of psychological net worth as conceptualized in this study is illustrated in Figure 6.
Figure 6: Conceptual Model of Psychological Net Worth
Chapter III

Methodology

This chapter describes the methods used to study the impact of psychological debt, consisting of the various components of emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice on the positive organizational outcomes variables of organizational commitment, organizational citizenship, professionalism and subjective well-being that are enhanced through the comprehensive construct of psychological capital. Psychological capital is viewed as psychological resources adding to the effectiveness of an organization while psychological debt is viewed as diminishing the positive impact on organizational outcomes. Recent research emanating from the field of Positive Organizational Scholarship has not included constructs that would diminish or detract from the positive benefits of psychological capital. Consequently, the design of this research project is to simultaneously identify the impact psychological capital brought to an organization by the employee and the psychological debt experienced by that employee and the subsequent impact on organizational outcomes. Both psychological capital and the components of psychological debt are viewed as independent variables in the design and the organizational outcomes of organizational citizenship behaviors, organizational commitment, professionalism and subjective well-being are viewed as dependent variables. The research design was a multi-level model with third and fourth year medical students within the context of their clinical rotations and ratings from their career mentors and advisors who work with them. A web-based survey was used for data collection. The sections immediately following describe the population, research design and instrumentation.
Participants

Participants in this study were participant-rater dyads consisting of third and fourth year medical students who are in the midst of their clinical training at a Midwestern medical school and clinical career mentors who follow their development.

Prior to data collection, the approval of the Institutional Review Board was sought through the University of Nebraska-Lincoln Office of Research, which monitors all research activities conducted at that institution to ensure adequate protection of subjects. Approval was obtained and the confirmation code of #20110115667EP was provided.

Procedures

Participants were invited to participate through an e-mail invitation to fill out a survey to self-report measure of total psychological capital (hope, optimism, resilience and efficacy), psychological debt of the various components of emotional labor, job deviance, job insecurity and stigmatic injustice and self-assessments of performance outcomes of organization commitment, professionalism and subjective well-being. Included with the invitation was a link to the web-based survey embedded in the secure online classroom platform of the university. Upon completion of the student survey, their mentors were subsequently asked to evaluate each of the students on a measure of observed organizational citizenship behaviors and professionalism behaviors on a separate web-based survey. To encourage participation and anonymity, any identifying information collected from either participants or evaluators was accessible only to the researcher. Identifiers were removed once the data collection and mentor matching was complete.

Return rates were calculated as the actual number of surveys completed by participants and leaders. Of the 256 survey email invitations distributed to the students, 166 were completed
for a 69% return rate. Of the survey invitations sent to 72 mentors asking for evaluations of the 166 students, 56 (77% return rate) responded with a total of 122 student evaluations, or 73% of students being evaluated. There were 56 groups with the average group size of 2.41 members. Students who responded were 53.3% female and 41.5% male with 48.1% in their third year of medical school and 51.9% in their fourth year. In addition, ethnic backgrounds were reported with 72.8% as White/Caucasian, 2.6% Korean, 1.5% Hispanic, 2.6% Black/African American, 3.6% Vietnamese, 1% Japanese, 1% Filipino, 2% Indian/Pakistani and 2% with no response. Raters or mentors were clinical physicians who worked with students within their clinical rotations. No demographics were gathered for the mentors as it was deemed extraneous to this study.

Data was collected and analyzed at student and mentor (dyad) level. Participants provided self-report demographic data and self-assessment of the independent variables of psychological capital, experienced psychological debt components and the impact on dependent variable performance outcomes. Mentors or raters assessed the independent variables of performance outcomes as objectively observed.

Because data were collected from both third and fourth year medical students and their mentors, Hierarchical Linear Modeling (HLM) data analysis procedures were calculated using SAS-PROC allowing data to be examined from two levels—the student (level 1) and the mentor (level 2). Subsequently students are “nested” within each mentor, creating the ability to examine data in two ways; students as well as student/mentor dyads. HLM analysis results in estimates of error and significance that traditional regression cannot. By utilizing HLM, researchers can analyze individual and group level variance, thereby obtaining higher statistical rigor than simple
correlations and regression analysis while avoiding assumptions of independence (Snijders & Bosker, 1999).

**Level 2: Mentors**

**Level 1: Individuals**

**PsyCap**

**PsyDebt**

- Emotional Labor
- Job Deviance
- Job Insecurity
- Job Stress
- Stigmatic Injustice

**Organizational Outcomes:**

- Professionalism
- Organizational Citizenship Behaviors

**Organizational Outcomes**

- Professionalism
- Organizational Commitment
- Subjective Well-being

**Figure 7:** Model for Hierarchical Linear Modeling

**Measures**

Psychological Debt was measured by the following: Emotional Labor using Emotional Labor Scale (Surface Acting, Deep Acting) (Brotheridge & Lee, 2003), and a 2-item Burnout scale (West et al., 2009), Job Insecurity with the Job Insecurity Scale (De Witte et al., 2010), Job Stress with the Demand-Control-Support Scale (Karasek, 1979), Stigmatic Injustice with the Workplace Stigma Questionnaire (Interpersonal Enacted, Organizational Enacted, Internalized) (Gifford & Barbuto, 2009), and Workplace Deviance Questionnaire (Bennett & Robinson,
2000). The dependent variables were measured using the following: Organizational Citizenship Behavior with the Organizational Citizenship Behavior Scale (Podsakoff et al., 2000), Organizational Commitment with the Organizational Commitment Scale (affective and continuance) (Meyer & Allen, 1991), Subjective Well-being with the Subjective Well-being Scale (Diener, et al., 1985) and Professionalism with the Pharmacy Student Professionalism Scale (Chisholm et al., 2006) and the rater Climate of Professionalism Scale (Arnold et al., 2008).

*Psychological Capital*

*PsyCap.* Psychological Capital was measured as a comprehensive construct using the PsyCap Questionnaire (Luthans et al., 2007). The measure consists of 24 items slightly modified for this study measured on a 5 point Likert-type scale, which includes four subscales: self-efficacy (6 items) – e.g. “I feel confident helping to set targets/goals in my work area” Hope (6 Items) – e.g. “Right now I see myself as being pretty successful at work”; Resiliency (6 items) – e.g. “When I have a setback at work, I have trouble recovering from it, moving on; and Optimism (6 items) – e.g. “I always look on the bright side of things regarding my job”.

*Psychological Debt*

*Emotional Labor.* Emotional labor was assessed using 7 items drawn from Brotheridge and Lee’s (1998) Emotional Labour Scale and two items created for this study. The measure consists of 9 items measured on a 5 point Likert-type scale, which includes two subscales: Deep Acting (3 items) – e.g. “You pretend to have emotions that you don’t really have” and Surface Acting (3 items) – e.g. “You resist expressing your true feelings” and two items developed for the present study – e.g. “I’ve made an effort to feel empathy for a patient”. A two-item burnout measure validated by West et al. (2009) was included to determine levels of experienced burnout—“I feel
burned out from my work” and “I have become more callous toward people since I took this job” on a 5-point Likert scale.

*Job Deviance.* Job deviance was measured using the Work place Deviance Scale by Bennett and Robinson (2000). The 15-item scale was modified to rate the exposure to job deviance as experienced by the rater. The measures used a 5-point Likert-type scale and asked respondents to indicate the number of times in the last year that they had experienced the behavior described to measure experienced organizational and interpersonal deviance.

*Job Insecurity.* Job insecurity was measured by using four items developed Witte (2000). These items were modified to focus on career path rather than current job situation to fulfill the needs for this study. The measure consists of a 5-point Likert-type scale with two subscales that include affective – e.g.”I feel insecure about the future of my job” and cognitive items – “I am sure I can keep my job”.

*Job Stress.* Job stress was measured using the Demand-Control-Support Model (DCSQ) developed by Karasek (1985). The measure consists of 15 items modified for use within this study measured on a 5 point Likert-type scale, which includes three subscales: Control (9 items) – e.g. “My job requires that I learn new things”; Demand (5 items)—e.g. “My job requires working very fast” and Support (6 items) – e.g. “People I work with take a personal interest in me”.

*Stigmatic Injustice.* Stigmatic injustice, described as stigmatization and marginalization due to injustice within the workplace was measured using 10 items from the Workplace Stigma Questionnaire (Gifford & Barbuto, 2009)). Three of the five components of stigma which focused on negative outcomes of stigma were included in this study (interpersonal enacted, organizational enacted and internalized) were measured using items Workplace Stigma
Questionnaire (WSQ) with a 5 point Likert-type scale—e.g. “People in my organization do not treat me as an equal” (Interpersonal Enacted), “Policies to protect me from discrimination are not enforced in this organization” (Organizational Enacted), and “Because others think negatively of me, I think negatively about myself” (Internalized).

Organizational Outcomes

Organizational Citizenship Behavior. Organizational citizenship behaviors were measured with the Organizational Citizenship Behavior Scale, developed by Podsakoff and MacKenzie (1989). This measure uses 12 items from the scale that have been modified for use in this study that include altruism, conscientiousness, civic virtue, sportsmanship and courtesy—e.g. “Attendance at work is above the norm” (conscientiousness).

Organizational Commitment. Allen and Meyer (1990) developed three scales of commitment to assess three types of commitment (affective, continuance and normative) that an employee may have to an organization. Eight items were chosen to reflect affective and continuance aspects of organizational commitment for this study and are rated on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree”—e.g. “This organization has a great deal of personal meaning to me” (affective).

Professionalism. Professionalism (self-assessed) was measured using the Pharmacy Professionalism Instrument (Chisholm et al., 2006), using 15 items that reflect the 6 tenets of professionalism listed above which are altruism, accountability, excellence, duty, honor and integrity, and respect for others. Developed for use by pharmacy students within clinical rotations, it was deemed as a valid instrument to use with medical students within clinical rotations. Professionalism, as assessed by the rater, was measured using 11 items from several measures developed by the University of Missouri-Kansas City School of Medicine and the
University of Kentucky School of Medicine that identifies professionalism behavior within medical students including items such as—e.g. “If the student makes an error, he/she admits to it” and “The student is respectful of the beliefs and values of others”. Two additional questions were added to ascertain expectancies about the career and professional development of the student---e.g. “The student is likely to be placed in a residency program of their choice”.

**Subjective Well-being.** Subjective well-being was measured using the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffen, 1985). The SWLS (Diener et al., 1985) is a 4-item scale to measure affective and cognitive components of life satisfaction using a 5 point Likert-type scale with items indicating life satisfaction - “In most ways my life is close to my ideal”.

**Demographics.** A series of demographic profile questions asked students to select their sex, ethnicity, year, state of origin, age, current clinical rotation and intended specialty choice if known.

**Variables in the Study**

The dependent variables were the organizational outcomes (organizational citizenship behaviors, organizational commitment, job satisfaction, professionalism and subjective well-being). The independent variables were psychological capital and psychological debt (emotional labor, job insecurity, job deviance, job stress and stigmatic injustice).

**Data Analysis**

Web-based surveys were distributed via an email invitation with a link sent to potential student participants. When student surveys were submitted, an email invitation was then sent to their mentor asking them to rate their student on a separate survey with the link also provided within the email. These survey responses were submitted via a survey instrument housed within
a secure, password-protected electronic classroom within the university. All items were entered by the researcher into the survey website using the design templates. Data from the surveys were downloaded from the website and transferred to Excel whereupon the identifiers were removed and replaced with codes. Data was analyzed by SAS PROC MIXED. This program is flexible for fitting HLM models (Singer, 1998).
Chapter IV

Results

The results of this study are presented within this chapter. The relationships between psychological capital, psychological debt and organizational outcomes were examined. Hierarchical Linear Modeling (HLM) analysis was used to identify the relationships between the independent and dependent variables and to test for moderating effects.

Simple Statistics and Correlations

Variables means, standard deviations and correlations appear in Table 1. A significance level of .05 ($p<.05$) was used in the data analysis. Scale items were divided into subscales for each variable. Mentor report variables (level 2) were differentiated from student report variables (level 1). Student participants completed a total psychological capital measure and measures to identify psychological debt (emotional labor, job deviance, job insecurity, job stress and stigmatic injustice). In addition, student participants completed a self-report on outcome measures (organizational commitment, professionalism and subjective well-being). Mentors were asked to rate the students using an organizational citizenship behavior measure and a professionalism measure.

Scale reliabilities for the variables utilized in this study are provided in Table 1 and are as follows; Psychological Capital had a reliability of ($\alpha=.87$) and its subscales reported reliabilities of hope ($\alpha=.71$), optimism ($\alpha=.56$), resilience ($\alpha=.77$), and self-efficacy ($\alpha=.67$). Psychological debt measures reported the following reliabilities; Emotional Labor ($\alpha=.74$) with the subscales of surface acting ($\alpha=.80$), deep acting ($\alpha=.79$), emotional work ($\alpha=.23$), burnout ($\alpha=.73$);
Workplace Deviance ($\alpha=.81$) with subscales wd-interpersonal ($\alpha=.90$) and wd-organizational ($\alpha=.75$); Job Insecurity ($\alpha=.88$); Job Stress ($\alpha=.81$) with its subscales of js-demand ($\alpha=.65$), js-control ($\alpha=.81$), js-support ($\alpha=.86$); Stigmatic Injustice ($\alpha=.90$) with its subscales of interpersonal enacted ($\alpha=.77$), organizational enacted ($\alpha=.85$) and internalized ($\alpha=.73$). In addition, organizational outcome measures also reported reliabilities of Organizational Commitment ($\alpha=.78$), Organizational Citizenship Behaviors ($\alpha=.79$), Professionalism-self ($\alpha=.85$), Professional-mentor ($\alpha=.97$) and Subjective Well-Being ($\alpha=.85$). While several of the subscales were below the acceptable reliability standard, when combined together into the inclusive measure, reached an acceptable level of reliability.

The results in Table 1 highlight correlations between total psychological capital, components of psychological debt (emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice), and outcome variables (organizational citizenship behaviors, organizational commitment, professionalism (mentor/student) and subjective well-being). Several significant correlations were found.

There were significant relationships between psychological capital and reported psychological debt components (emotional labor, job insecurity, job stress, workplace deviance, stigmatic injustice). Psychological capital was significantly negatively related to emotional labor ($r=-.28$), meaning that individuals with psychological capital were less likely to experience emotional labor. Psychological capital was also negatively related to job insecurity, ($r=-.68$), meaning that individuals with psychological capital are less likely to experience job insecurity. Psychological capital was also negatively related to job stress, ($r=-.33$), meaning that individuals who have psychological capital are less likely to experience job stress. Psychological capital was negatively related to stigmatic injustice ($r=-.47$), meaning that individuals with high
psychological capital are less likely to experience stigmatic injustice. Psychological capital was negatively related, albeit weakly, to workplace deviance ($r = -0.19$), meaning that individuals with psychological capital were less likely to experience workplace deviance. Figure 8 highlights the relationships between psychological capital and psychological debt.

![Figure 8: Psychological Capital and Psychological Debt](image-url)
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Note: Reliability coefficients (a) on diagonals.

*Correlation is significant at the .05 level

**Correlation is significant at the .01 level
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Note: Reliability coefficients (α) on diagonals.

*p < .05 for all correlations greater than .12

**Correlation is significant at the .01 level

*Correlation is significant at the .05 level
Several relationships emerged between psychological capital and organizational outcomes. There was not a significant correlation between psychological capital and organizational citizenship behavior or organizational commitment. While there was not a significant correlation between psychological capital and the mentor rating of professionalism, there was a significant positive relationship with the student self-report measure of professionalism ($r=.56$). This means that individuals with psychological capital are more likely to self-report professional attitudes and behaviors. There was also a positive relationship between psychological capital and subjective well-being ($r=.45$), meaning that individuals with psychological capital are more likely to experience subjective well-being. Figure 9 highlights the relationships between psychological capital and organizational outcomes.

![Figure 9: Results of Psychological Capital and Organizational Outcomes](image-url)
The components of psychological debt revealed several significant relationships with organizational outcomes. There were no significant correlations between emotional labor and the outcomes of organizational citizenship behavior, organizational commitment and mentor-rated professionalism. However, there was a significant negative relationship between emotional labor and self-rated professionalism \((r=-.23)\), meaning that those experiencing emotional labor are less likely to self-report professionalism. There was also a negative relationship between emotional labor and subjective well-being \((r=-.25)\), meaning that those experiencing emotional labor are less likely to experience subjective well-being.

Job insecurity was not significantly correlated to organizational citizenship behavior, organizational commitment or mentor-rated professionalism. However, there was a significant negative relationship with job insecurity with professionalism (self-rated) \((r=-.20)\), meaning that individuals experiencing job insecurity are less likely to self-report professionalism. In addition, there was a negative relationship between job insecurity and subjective well-being \((r=-.52)\), meaning that individuals experiencing job insecurity are less likely to report subjective well-being.

Job stress did not have significant relationships with organizational citizenship behaviors, organizational commitment, mentor-rated professionalism or subjective well-being. However, there was a significant negative relationship between job stress and self-reported professionalism \((r=-.20)\), meaning that individuals reporting higher levels of job stress are less likely to report professionalism.

Stigmatic injustice had no significant relationships between the outcomes of organizational citizenship behavior, organizational commitment or mentor-rated professionalism. However, stigmatic injustice had a significant negative relationship with self-reported...
professionalism \((r = -0.36)\), meaning that individuals experiencing stigmatic injustice are less likely to report professionalism. Stigmatic injustice also had a negative relationship with subjective well-being \((r = -0.41)\), meaning that individuals experiencing stigmatic injustice are less likely to report subjective well-being.

There were no significant relationships found between workplace deviance and the outcomes of organizational citizenship behavior, organizational commitment, mentor-rated professionalism and subjective well-being. However, there was a significant negative relationship between workplace deviance and self-reported professionalism \((r = -0.45)\), meaning that individuals experiencing workplace deviance are less likely to report professionalism.

Figure 10 highlights the relationships between components of psychological debt and organizational outcomes.

Figure 10: Results of psychological debt components and organizational outcomes.
Multilevel Models

Data in this study was collected from students and their mentors. Data collected from two sources is multilevel data as it is drawn from the mentors (level two) and the students (level one). Hierarchical Linear Modeling (HLM) is a statistical technique that allows an analysis of the relationships at the two levels (dyads) (Snijders & Bosker, 1999). The analysis provided by HLM adopts a two-level approach to cross-level investigations where the Level 1 model is estimated separately for each student. Organizational citizenship behaviors and professionalism were examined separately as level 2 variables (rated by mentors). Each individual was “nested” within each mentor, creating the ability to examine data for both individual participants and their raters. This statistical model results in estimates of error and significance that traditional regression cannot, thereby obtaining higher statistical rigor than simple correlations and regression analysis (Hofman, 1997). The multi-level model protects against violating the independence of errors and resulting inflated Type I errors. The results of this statistical model creates between and within effects for each variables with the between effect (BG) indicating a group mean minus the overall mean and the within effect (WG) indicating each individual score minus their group mean. A separate model was run for each independent variable. Interclass correlation coefficients (ICC) were determined for each variable indicating the value of running a multi-level model over a simple regression model. The random intercept was significant for all models with the exception of one which was close enough to keep for consistency purposes.

Results of Multi-level Models:

Hypothesis 1: Testing the Relationship of Psychological Capital and Outcome Variables

1. Psychological Capital and Professionalism--self
There was a significant positive relationship between WG PsyCap and Professionalism-self, meaning that individuals who perceived themselves as higher in psychological capital than others were more likely to see themselves as professional. There was also a significant relationship between BG PsyCap and Professionalism-self, indicating that groups who reported themselves as higher in psychological capital were more likely to see themselves as more professional than other groups. The relationship between psychological capital and professionalism is found in Table 2.

| Parameter                          | Estimate | SE  | DF  | t value | Pr>|t| |
|------------------------------------|----------|-----|-----|---------|-----|
| Intercept                          | 4.31     | 0.025| 112 | 116.5   | <.0001|
| Between Group Psychological Capital| 0.539    | 0.103| 112 | 5.24    | <.0001|
| Within Group Psychological Capital  | 0.527    | 0.089| 112 | 5.92    | <.0001|

Table 2. Psychological Capital and Professionalism-Self Solution for Fixed Effects.

2. Psychological Capital and Subjective Well-being

There was a significant relationship between WG PsyCap and Subjective Well-Being, meaning that individuals who rated themselves higher in psychological capital were more likely to rate themselves higher in subjective well-being in comparison to other individuals. There was also a significant relationship between BG PsyCap and Subjective Well-Being, indicating that groups who reported themselves as higher in psychological capital were more likely to rate their subjective well-being higher than other groups. Psychological capital was not a predictor for organizational citizenship behaviors, organizational commitment, professionalism (mentor). The relationship between psychological capital and subjective well-being is found in Table 3.
Parameter & Estimate & SE & DF & t value & Pr>|t| \\
--- & --- & --- & --- & --- & --- \\
Intercept & 3.90 & 0.05 & 112 & 67.78 & <.0001 \\
Between Group Psychological Capital & 0.89 & 0.22 & 112 & 8.89 & 0.0002 \\
Within Group Psychological Capital & 0.67 & 0.19 & 112 & 3.4 & 0.0009 \\

Table 3. Psychological Capital and Subjective Well-being Solution for Fixed Effects.

There were no significant relationships between psychological capital and organizational citizenship behavior, organizational commitment or professionalism-mentor.

Hypothesis 2: Psychological Debt and Organizational Outcomes

1. Organizational Citizenship Behaviors and Components of Psychological Debt.

There was a significant negative relationship between WG Job Stress and Organizational Citizenship Behaviors, meaning that individuals who rated themselves higher in job stress were less likely to be seen as having higher in OCBs in comparison to other individuals. There was a significant positive relationship between WG Workplace Deviance and objective OCBs, meaning that individuals who rated themselves higher in workplace deviance were more likely to be seen as exhibiting higher OCBs than other individuals. There were no significant relationships between OCBs and BG job stress, BG workplace deviance, organizational citizenship behaviors and emotional labor, job insecurity and stigmatic injustice. Table 4 shows the significant relationships between OCBs and components of psychological debt.

Parameter & Estimate & SE & DF & t value & Pr>|t| \\
--- & --- & --- & --- & --- & --- \\
Intercept & 4.04 & 0.05 & 47.3 & 82.8 & <.0001 \\
Within Group Job Stress & 0.30 & 0.15 & 79.6 & 2.04 & 0.04 \\
Within Group Workplace Deviance & 0.311 & 0.15 & 80.4 & 2.02 & 0.05
Table 4: Organizational Citizenship Behavior with Components of Psychological Debt Solutions for Fixed Effects.

2. Organizational Commitment and Components of Psychological Debt

There was a significant negative relationship between WG Job Insecurity and Organizational Commitment, indicating that groups who reported themselves as higher in experiencing job insecurity were less likely to see themselves as having more organizational commitment than other groups. There was also a positive relationship between Organizational Commitment and BG Stigmatic Injustice, indicating that groups experiencing higher levels of stigmatic injustice were more likely to report higher levels of organizational commitment. There were no significant relationships between organizational commitment and the psychological debt components of emotional labor, workplace deviance or job stress. Table 5 shows the relationships between organizational commitment and components of psychological debt.

| Parameter                  | Estimate | SE  | DF  | t value | Pr>|t| |
|----------------------------|----------|-----|-----|---------|-----|
| Intercept                  | 3.02     | 0.02| 111 | 131.97  | <.0001 |
| Between Group Job Insecurity | -0.006  | 0.06| 111 | -0.1    | 0.92 |
| Within Group Job Insecurity | 0.125   | 0.07| 111 | 2.24    | 0.07 |
| Between Group Stigmatic Injustice | 0.149 | 0.06| 111 | 0.98    | 0.03 |
| Within Group Stigmatic Injustice | 0.055  | 0.05| 111 | 0.98    | 0.33 |

Table 5. Organizational Commitment and Components of Psychological Debt Solutions for Fixed Effects.

3. Professionalism–self and Components of Psychological Debt

There was a negative relationship between WG job insecurity and self-rated professionalism, meaning that individuals who rated themselves higher in job insecurity were less likely to see themselves as professional in comparison to other individuals. There was also a positive relationship between BG job insecurity and self-rated professionalism, indicating that
groups who reported themselves as higher in job insecurity were less likely to see themselves as professional as other groups. There was a negative relationship between WG Stigmatic Injustice and self-rated professionalism, meaning that those individuals who rated themselves higher in experiencing stigma were less likely to see themselves as professional in comparison to other individuals. There was not a significant relationship between BG stigmatic injustice, emotional labor, job stress and workplace deviance and professionalism-self. Table 6 shows the significant relationships between professionalism-self and components of psychological debt.

| Parameter                 | Estimate | SE  | DF  | t value | Pr>|t| |
|---------------------------|----------|-----|-----|---------|-----|
| Intercept                 | 4.31     | 0.02| 112 | 158.08  | <.0001 |
| Between Group Job Insecurity | 0.29   | 0.07| 112 | 3.91    | 0.0002 |
| Within Group Job Insecurity | 0.17   | 0.08| 112 | 2.01    | 0.047  |
| Between Group Stigmatic Injustice | 0.04 | 0.08| 112 | 0.54    | 0.588  |
| Within Group Stigmatic Injustice | -0.24  | 0.07| 112 | -3.53   | 0.0006 |

Table 6. Professionalism-Self and Psychological Debt solution for Fixed Effects

4. Subjective well-being and Psychological Debt

There was also a strong negative relationship between BG job insecurity and subjective well-being, indicating that groups who reported themselves as higher in job insecurity were less likely to report higher ratings of subjective well-being than other groups. There was a significant negative relationship between WG stigmatic injustice and subjective well-being, meaning that individuals who rated themselves higher in experiencing stigmatic injustice were less likely to report higher ratings of subjective well-being in comparison to other individuals. There were no significant relationships for WG Job Insecurity and BG Stigmatic Injustice. In addition, there were no significant relationships between subjective well-being and the psychological debt
components of emotional labor, job stress or workplace deviance. Table 7 shows the relationships of subjective well-being and components of psychological debt.

| Parameter                          | Estimate | SE  | DF  | t value | Pr>|t| |
|-----------------------------------|----------|-----|-----|---------|------|
| Intercept                         | 3.89     | 0.05| 112 | 76.36   | <.0001|
| Between Group Job Insecurity      | 0.63     | 0.14| 112 | 4.31    | < .0001|
| Within Group Job Insecurity       | 0.29     | 0.16| 112 | -0.72   | 0.0736|
| Between Group Stigmatic Injustice | -0.11    | 0.16| 112 | -0.72   | 0.4716|
| Within Group Stigmatic Injustice  | -0.42    | 0.13| 112 | -3.11   | 0.0023|

Table 7. Subjective well-being with components of Psychological Debt Solution for Fixed Effects.

Hypothesis 3: The interactive effects of psychological capital and psychological debt.

This hypothesis predicated an interactive effect of psychological capital and psychological debt. The five components measuring psychological debt were combined into one factor using sum scores in order to facilitate an efficient model. Ideally, the use of structural equation modeling would be informative; however, it was deemed inappropriate in this case due to smaller sample size and larger number of variables. In addition, the number of predictors was problematic in that the regression rule of thumb also applies; the number of predictors vs. the number of participants has to have a 1:10-15 ratio which was not reached in this study (Klein & Kozlowski, 2000). Consequently, PsyDebt=mean of Between Group and Within Group emotional labor, job insecurity, job stress, stigmatic injustice, and workplace deviance.

Interaction of Psychological Capital and Psychological Debt on Organizational Outcomes.

1. Organizational Citizenship Behavior with Psychological Capital and Total Psychological Debt.
The interaction between WG PsyCap and WG PsyDebt on Organizational Citizenship Behavior was significant, meaning that the effect of being above your group mean in Psychological Capital depends on whether or not your group is higher or lower than the overall mean of Psychological Debt. The more above the overall mean of Psychological Debt, the more positive the relationship of the within group effect. The WG effect of PsyCap is more positive if your group mean is higher on Psych Debt; i.e. if your group has high PsyDebt, being high in psychological capital relative to the rest of your group will lead to higher OCBs and you would be considered better than the norm. The interaction of psychological capital and psychological debt will impact the outcome of organizational citizenship behaviors as perceived by others.

There were not significant relationships between Organizational Citizenship Behavior and BG PsyCap or WG/BG PsyDebt. Table 8 illustrates the relationships of Organizational Citizenship Behaviors with Psychological Capital and Total Psychological Debt.

| Parameter                      | Estimate | SE  | DF  | t value | Pr>|t| |
|-------------------------------|----------|-----|-----|---------|------|
| Intercept                     | 4.53     | 0.06| 56.8| 69.93   | <.0001|
| Within Group PsyCap           | 0.53     | 0.25| 91.5| 2.11    | 0.0379|
| Between Group PsyCap          | 0.07     | 0.24| 85.1| 0.27    | 0.78  |
| Within Group PsyDebt          | 0.42     | 0.32| 91.9| 1.29    | 0.20  |
| Between Group PsyDebt         | 0.02     | 0.37| 99.5| 0.06    | 0.95  |
| Within Group PsyCap*PsyDebt   | 4.32     | 2.59| 91.7| 1.67    | 0.09  |

Table 8. Interaction of PsyCap and Total PsyDebt with OCB Solution for Fixed Effects.

2. Professionalism (mentor) and PsyCap and PsyDebt.

The interaction between WG PsyCap and BG PsyDebt on Professionalism-mentor was significant, meaning that the effect of being above your group mean in psychological capital
depends on whether or not your group is higher or lower than the overall mean of psychological
debt. The more above the overall mean of psychological debt, the more positive the relationship
of the within group effect. The WG effect of PsyCap is more positive if your group mean is
higher on PsyDebt; i.e. if your group has high PsyDebt, being high in psychological capital
relative to the rest of your group will lead to higher mentor-rated professionalism and you would
be considered better than the norm. The interaction of psychological capital and psychological
debt will impact the outcome of mentor-rated professionalism. There were no significant
relationships with professionalism-mentor and BG PsyCap or BG/WG PsyDebt. The interaction
of PsyCap and PsyDebt with Professionalism-mentor is illustrated in Table 9.

| Parameter                  | Estimate | SE  | DF  | t value | Pr>|t|
|----------------------------|----------|-----|-----|---------|-----|
| Intercept                  | 4.53     | 0.06| 56.8| 69.93   | <.0001|
| Within Group PsyCap        | 0.53     | 0.25| 91.5| 2.11    | 0.0379|
| Between Group PsyCap       | 0.07     | 0.24| 85.1| 0.27    | 0.78  |
| Within Group PsyDebt       | 0.42     | 0.32| 91.9| 1.29    | 0.20  |
| Between Group PsyDebt      | 0.02     | 0.37| 99.5| 0.06    | 0.95  |
| Within Group PsyCap*PsyDebt| 4.32     | 2.59| 91.7| 1.67    | 0.09  |

Table 9. Interaction of PsyCap and Total PsyDebt with professionalism (mentor) Solution for Fixed Effects.

These two findings indicate that the effect of WG PsyCap depends upon BG PsyDebt. In
other words, as BG PsyDebt increases, the effect of the WG PsyCap becomes more positive. As
the average BG rating gets higher for PsyDebt, having more PsyCap than others in the group has
a bigger effect from the perception of the mentor with both OCB and professionalism ratings.
The two variables that became significant when looking at the interaction of PsyCap and
PsyDebt using multi-level modeling were the mentor-rated Organizational Citizenship Behaviors
and Professionalism, indicating that levels of psychological debt diminish psychological capital as viewed by others.

A summary of the significant within-group and between-group relationships resulting from the Hierarchical Linear Modeling supporting the proposed hypotheses are found in Table 10.

<table>
<thead>
<tr>
<th>Hypothesis 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BG PsyCap (+)</td>
<td>Professionalism</td>
</tr>
<tr>
<td>WG PsyCap (+)</td>
<td>Professionalism</td>
</tr>
<tr>
<td>BG PsyCap (+)</td>
<td>Subjective Well-being</td>
</tr>
<tr>
<td>WG PsyCap (+)</td>
<td>Subjective Well-being</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WG Job Stress (-)</td>
<td>Organizational Citizenship Behaviors</td>
</tr>
<tr>
<td>WG Workplace Deviance (+)</td>
<td>Organizational Citizenship Behaviors</td>
</tr>
<tr>
<td>WG Job Insecurity (-)</td>
<td>Organizational Commitment</td>
</tr>
<tr>
<td>BG Stigmatic Injustice (+)</td>
<td>Organizational Commitment</td>
</tr>
<tr>
<td>BG Job Insecurity (-)</td>
<td>Professionalism (self)</td>
</tr>
<tr>
<td>WG Job Insecurity (-)</td>
<td>Professionalism (self)</td>
</tr>
<tr>
<td>WG Stigmatic Injustice (-)</td>
<td>Professionalism (self)</td>
</tr>
<tr>
<td>BG Job Insecurity (-)</td>
<td>Subjective Well-being</td>
</tr>
<tr>
<td>WG Stigmatic Injustice (-)</td>
<td>Subjective Well-being</td>
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<table>
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<tr>
<th>Hypothesis 3</th>
<th></th>
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<tbody>
<tr>
<td>WG PsyCap and WG PsyCap*PsyDebt</td>
<td>Organizational Citizenship Behaviors</td>
</tr>
<tr>
<td>WG PsyCap and WG PsyCap* PsyDebt</td>
<td>Professionalism (mentor)</td>
</tr>
</tbody>
</table>

Table 10. Summary of Relationships from HLM
Chapter V

Discussion

This study tested the impact of psychological debt on the positive organizational outcomes provided by psychological capital. It was predicted that 1) Psychological capital would have a positive relationship with positive organizational outcomes (organizational citizenship behavior, organizational commitment, professionalism and subjective well-being), 2) Psychological debt components (emotional labor, job deviance, job insecurity, job stress, stigmatic injustice) would have a negative relationship with positive organizational outcomes, and 3) Psychological debt would diminish or neutralize the impact of psychological capital on positive organizational outcomes. This chapter will focus on interpretation of the results, limitations of this study and implications for research and practice.

Interpretation of Simple Statistics Results

The use of simple statistics allowed several correlational relationships to emerge. Psychological capital, as a construct that represents an individual’s positive psychological state as characterized by hope, optimism, efficacy and resilience, has been found to impact attitudes and behaviors that could facilitate or inhibit positive organizational outcomes (Luthans et al., 2008). Several significant relationships between positive organizational outcomes and psychological capital were found that would support these claims.

Psychological Capital and Positive Organizational Outcomes

Relationships between psychological capital and professionalism-self indicated that individuals with high psychological capital are more likely to report high levels of professionalism. While psychological capital has yet to be linked directly to professionalism, it follows that individuals with high psychological capital would more likely exhibit higher levels
of professionalism. Higher levels of individuals’ psychological capital have been found to impact attitudes and behaviors that could facilitate or inhibit positive organizational outcomes (Luthans et al., 2008). These same positive organizational outcomes are also reflected in professionalism with reported outcomes such as job satisfaction and lower turnover rates (Hwang et al., 2009). The capacities of hope, optimism, resilience and efficacy are likely to be reflected in individuals who subsequently see themselves as having professional behaviors and attitudes.

In addition, subjective well-being and psychological capital were also linked, indicating that individuals with the capacity for psychological capital are more likely to see their lives as overall fulfilling and satisfying. This conclusion has been implicated in previous work with mounting evidence that links psychological capital and employees’ positive appraisal of circumstances and probability for success (Walumbwa et al., 2010). In addition, individuals with high subjective well-being are more likely to have increased higher performance and more resilience on the job as reported by Diener, Kesebir & Lucas (2008), which are also reflective of psychological capital capacities. While direct links from psychological capital to subjective well-being have not yet been made, it follows that individuals with high psychological capital would experience great subjective well-being, resulting in positive outcomes for both the individual and the organization.

Surprisingly, there were no significant relationships between psychological capital and organizational citizenship behaviors, organizational commitment, or professionalism-mentor. This counters work by Avey, Luthans and Youssef (2010) that psychological capital had a positive relationship with organizational citizenship behaviors and a negative relationship with counterproductive work behaviors. In addition, it does not reflect findings from previous work
that individuals with high levels of psychological capital are more likely to show increased levels of commitment to the organization (Youssef & Luthans, 2007).

**Psychological Capital and Components of Psychological Debt**

There appears also to be several significant relationships between psychological capital and the components of psychological debt as was predicted and as reported in Table 1. First, individuals with psychological capital are less likely to indicate the negative aspects of emotional labor. While potentially, those in service careers may find the emotional work they engage in as energizing, there is a link with the negative effects of emotional labor that lead to burnout and substantial costs for both the organization and the individual (Mikolajczak, Menil, & Luminet, 2007). It follows that the capacities of hope, optimism, resilience and efficacy would provide a buffer to those negative effects.

Additionally, individuals who indicated higher levels of job insecurity were less likely to indicate higher levels of psychological capital. Job insecurity is the subjective appraisal of an environmental threat to a job that results in negative behavioral outcomes (Reisel et al., 2010). It follows then that the positive capacities of psychological capital will reflect a sense of security within a job that is devoid of the anxiety, stress and negative impact that comes with fear of losing a position or desired components of that work.

Indicators of job stress also were linked with psychological capital. Individuals who reported a lack of resources to meet the demands of the job, had a sense of lack of control over their work and who experienced a lack of support from others were less likely to also report higher levels of psychological capital. Those individuals experiencing higher levels of job stress have been reported to experience undesirable organizational outcomes, such as job dissatisfaction, burnout and organizational withdrawal (Hurrell et al., 2007). Psychological
capital is likely to mitigate and provide a buffer to those negative effects.

Those reporting high levels of psychological capital were also those who reported lower levels of stigmatic injustice. While perceptions of fairness has been seen to lead to organizational commitment and effectiveness, the perception of injustice lead to alienative commitment and subsequent negative implications for the individual and organization (Howard & Cordis, 2010). Those individuals who have high psychological capital either do not experience stigma within the workplace or their capacities, such as resilience or optimism, create a means for them to handle stigma in a more creative and positive way.

Finally, individuals who have high psychological capital may also experience less workplace deviance. While this relationship is not strong, it seems that the capacities of psychological capital prohibit someone from acting in deviant way. Individuals who participate in deviant behaviors, such as gossiping, bullying or passive-aggressive behaviors are not likely to rate themselves as also high in psychological capital. While in some regards, they may see themselves as “okay”, they most likely will work to inhibit a negative impact within interpersonal and organizational relationships. This result lends support to previous work that indicates workplace deviance as counterproductive behaviors that result in alienation of colleagues and inhibition of organizational goals and interests (Mount et al., 2006).

Components of Psychological Debt and Organizational Outcomes

Several significant relationships were found between elements of psychological debt and organizational outcomes, although less than predicted. Individuals who reported experiencing higher levels of emotional labor were also less likely to see themselves as professional. As professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates (Hwang et al., 2009), it follows that those individuals experiencing
emotional labor will be less likely to exhibit professional attitudes and behaviors due to the resulting cynicism and burnout that accompanies this debt. In addition, those experiencing emotional labor are less likely to report experiencing an overall life satisfaction and well-being. As subjective well-being described the level of well-being people experience according to their subjective long-term evaluation of their lives with resulting increased productivity and higher performance (Diener, Kesebir & Lucas, 2008), it is likely that those experiencing the exhaustion and burnout that accompanies emotional labor would concurrently have diminished subjective well-being.

There was a significant negative relationship between job insecurity and professionalism, indicating that individuals reporting high levels of job insecurity were less likely to see themselves as professional. Professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates (Hwang et al., 2009). Conversely, as individuals feel secure in their job position or in various aspects of their job, they would more likely exhibit professional behaviors and attitudes. The absence of the worry and anxiety that accompanies job insecurity will allow individuals to focus their capacities on professional development and behaviors. There was also a negative relationship between job insecurity and subjective well-being. Those individuals who report higher levels of job insecurity and are burdened with the accompanying anxiety and worry about the status of their employment, are less likely to experience higher levels of satisfaction with their life.

Individuals experiencing high levels of job stress were less likely to see themselves as professional. Those individuals that are experiencing job stress would be unlikely to see themselves as professional as job stress includes elements of inadequate control, frustrated hopes and expectations that contributed to burnout and emotional exhaustion (Iacovides et al.,
Individuals who felt they had the resources to meet job demands, had some semblance of control within their job and received support from others would more likely see themselves as exhibiting professional behaviors and attitudes.

The negative impact of stigmatic injustice was also counter to professionalism, indicating that those experiencing high levels of stigma would be less likely to see themselves as professional. As individuals suffer the negative impacts of being stigmatized within their organization, they are less likely to perceive themselves as professionals as these individuals may feel alienated, less committed and engage in behavior that may be retaliatory and caustic (Mount et al, 2006). This counters the description of professional behaviors that includes ethical and moral actions, communication and social responsibility (Archer et al., 2008). Stigmatic injustice also was linked to lower subjective well-being and reported overall life satisfaction. Stigmatic injustice has been linked with increased anxiety, insomnia, depression, psychiatric disorders, exhaustion and coronary problems (Barclay, 2009). These negative outcomes would most certainly lead to a lower sense of satisfaction with subsequent negative outcomes of decreased productivity and levels of performance (Diener, Kesebir & Lucas, 2008).

Finally, individuals participating in workplace deviancy would be less likely to see themselves as professional. Also known as counterproductive behaviors, these caustic deviant behaviors result in alienation of colleagues and inhibition of organizational goals and interests (Mount et al., 2006). Professional attitudes, conversely, are those actions and behaviors that include identification with a professional role and include ethical and moral actions, clinical competence, communication skills, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008).
Interpretation of Multi-model Results

Many of the results of correlational relationships were predicted; those with high psychological capital would be more likely to exhibit positive organizational behaviors and attitudes and those with higher psychological debt components would be less likely to exhibit positive organizational behaviors and attitudes. The exception to these predictions was a lack of significant relationships to the outcomes of organizational citizenship behaviors and organizational commitment. This counters much of the literature that indicates that psychological capital is more likely to lead to organizational behaviors, such as those that reflect organizational citizenship behaviors and organizational commitment (Youssef & Luthans, 2007). Also noteworthy from the correlational results was a lack of relationship with either psychological capital or the psychological debt components with the ratings of others in organizational citizenship behaviors and professionalism-mentor. In and by themselves, these factors did not either contribute or detract from positive organizational outcomes as seen from the perspective of a mentor or supervisor.

Using the more rigorous statistical methods found in HLM, relationships were examined for both between-group effects and within-group effects. Between group (BG) effects compares differences between groups, perhaps indicating that group affiliation or a certain mentor created a difference in results while the Within-Group (WG) effect examined the differences within individuals of a group. This statistical method yielded additional information.

In support of Hypothesis I which predicted a positive relationship between psychological capital and positive organizational outcomes, several relationships were revealed. There was a significant relationship in both WG and BG psychological capital and professionalism-self, indicating that in both individuals and groups who perceive themselves as having higher
psychological capital are more likely to see themselves as professional as other individuals and groups respectively. In other words, individuals having the positive psychological capacities of hope, optimism, resilience and efficacy are more likely to see themselves as professional. As professional behaviors have been linked to positive organizational outcomes such as job satisfaction, performance and lower turnover rates (Hwang et al., 2009), these are behaviors and attitudes desired and should be nurtured within organizations. Additionally, there was a significant relationship between both BG and WG psychological capital and subjective well-being, indicating that both individuals and groups reporting higher levels of psychological capital are more likely to report a higher life satisfaction in comparison with other individuals and groups respectively. As subjective well-being has also been linked to the positive outcomes of increased productivity, higher performance and more resilience (Diener, Kesebir & Lucas, 2008), managers and mentors would be well-served to create environments where psychological capital is nurtured and supported.

Additional support from the multi-level modeling was provided for Hypothesis 2 which predicted psychological debt having a negative relationship to positive organizational outcomes. While there were no significant relationships within the simple correlational model with organizational citizenship behaviors, several emerged within the multi-level modeling. There was a significant negative relationship between WG job stress and organizational citizenship behaviors, indicating that individuals reporting higher levels of job stress were less likely to exhibit positive OCB extra-role behaviors benefiting the organization in comparison to other individuals. If a group with a certain mentor is rated higher in OCBs, they are in turn, experiencing less stress. If managers or supervisors desire these positive organizational behaviors, they will be motivated to manage stress within the workplace, either through
increasing resources to meet demands, providing more control to their employees and offering interpersonal support (Karasek, 1998).

In addition, there was a positive relationship between WG workplace deviance and organizational citizenship behaviors, indicating that those individuals reporting higher levels of workplace deviance were more likely to exhibit organizational citizenship behaviors. While this may seem counterintuitive, it may follow that individuals who participate in deviant behaviors may be somewhat manipulative and deceiving. While many OCBs go unnoticed by managers or supervisors, those engaging in deviancy may work at making those behaviors evident in order to reap the potential benefits.

While there were no significant relationships between components of psychological debt and organization commitment within the simple correlational models, several significant relationships emerged with the multi-level modeling. There was a negative relationship between WG job insecurity and organizational commitment, indicating that individuals experiencing job insecurity would be less likely to indicate high levels of commitment to the organization. If individuals are experiencing the anxiety and worry that accompanies insecurity within a job, they are less likely to feel committed to the organization creating those negative feelings. Additionally, there was an unexpected positive relationship between BG stigmatic injustice and organizational commitment, indicating that groups suffering from stigmatic injustice may report higher levels of commitment and loyalty to the organization. While this may seem counterintuitive, groups that are experiencing stigma together may in fact, bond together in the face of that adversity. Potentially, if certain leaders create higher stigma or a prejudicial environment, members of their group may in fact, band together. A principle of social psychology is that misery loves miserable company--if members feel stigma as a whole, they
may create a group bond that signifies togetherness and allegiance in the face of adversity. It may be an “we’re all in this together” approach where when all members of the group are feeling the negative impact of stigma, group commitment may increase. While organizational commitment is a desirable outcome, this between-group effect of stigmatic injustice may ultimately backfire. Ultimately, the outcomes of stigmatic injustice are likely to be decreased emotional commitment to the organization, evaluation of authority, withholding genuine expressions of feelings or retaliatory actions (Hershcovis, et al., 2009).

In addition, there were several significant relationships for professionalism-self. The first was a negative relationship between both BG and WG job insecurity and professionalism, indicating that both individuals and groups who reported higher levels of job insecurity were less likely to see themselves as more professional than other individuals and groups respectively. Conversely, individuals and groups who feel more secure and the freedom resulting from that security in various aspects of their job are more likely to see themselves as professional. Job insecurity leads to negative outcomes of anger, burnout and diminished organizational commitment (Greenhalgh & Rosenblatt, 2010). This counters the positive outcomes of professionalism which includes ethical and moral actions, competence, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008). Manager and supervisors who desire to benefit from professional attitudes and behaviors will be motivated to provide a secure environment and provide buffers to organizational politics and environmental stressors that lead to insecurity.

There was a significant negative relationship between WG stigmatic injustice and professionalism, indicating that individuals reporting higher levels of stigmatic injustice were less likely to see themselves as professional in comparison to other individuals. As discussed
earlier, the negative impacts of stigmatic injustice are counter to perceiving oneself as professional. Again, manager and supervisors would benefit from decreasing stigma in the workplace in order to receive the benefits of perceived professionalism.

Examining the final outcome of subjective well-being and components of psychological debt also indicated several significant relationships. There was a significant negative relationship between BG job insecurity and subjective wellbeing, indicating that groups reporting higher levels of job insecurity were less likely to report higher levels of life satisfaction than other groups. Organizations benefit from their employees’ perceptions of life satisfaction with behaviors and attitudes that work together to benefit their communities, organizations and societies (Diener, Kesebir & Lucas, 2008). Managers and supervisors would benefit from increasing feelings of stability and security within their groups.

There was a negative relationship between WG stigmatic injustice and subjective well-being, indicating that individuals experiencing stigmatic injustice are less likely to report overall life satisfaction. Again, as individuals experience stigma, they are less likely to feel a sense of overall satisfaction and well-being that impacts organizational outcomes of increased performance and productivity (Diener, Kesebir & Lucas, 2008). Managers and supervisors would contribute to organizational outcomes by providing a safe environment for their employees---one that is free from interpersonal and organizational stigma.

Lastly, although there was only a slight positive relationship that was only close to significance between BG workplace deviance and subjective well-being, it bears noting. This would indicate that groups experiencing workplace deviance are more likely to report higher life satisfaction than other groups. Deviant behavior within the workplace has been linked to alienation of colleagues and inhibition of organizational goals and interests (Mount et al., 2006).
While this seems counterintuitive to the idea that deviant behavior would lead to lower levels of life satisfaction, the converse may be true at some level within groups. As groups engage in higher levels of deviant behavior within the organization, there may be a group effect of levels of well-being---members of the group may band together, resulting in a cohesiveness and sense of belonging. The negative impact of the deviant behavior may be felt “out” of the group rather than within the group.

Finally, in hypothesis 3, it is predicted that psychological debt will interact with psychological capital in a way that diminishes or neutralizes the positive contributions of psychological capital. For this last hypothesis, the five components of psychological debt were considered cumulatively as a psychological debt construct. The multi-level modeling provided two significant findings which support this hypothesis and the proposed framework of psychological net worth. These two findings examine the significant relationships in two of the positive organizational outcome variables, organizational citizenship behaviors and mentor-rated professionalism. It is noteworthy to identify these two variables as the two mentor-rated scales.

First, there was a significant relationship in the interaction of WG psychological capital and WG PsyCap*PsyDebt on organizational citizenship behaviors. Consequently, if the group has increased levels of psychological debt, being high in psychological capital relative to the rest of your group will lead to higher levels of organizational citizenship behaviors as rated by others. In other words, if you are better than the “norm” of your group, you are more likely to exhibit those extra-role behaviors that will benefit the organization. Consequently, if managers and supervisors perceive evidence of high psychological debt in their groups, it would be beneficial to create and nurture the existing psychological capital to lead to improved organizational outcomes.
Finally, there was a significant relationship between the interaction of WG psychological capital and WG PsyCap*PsyDebt on mentor-rated professionalism. Again, if your group is experiencing increased levels of psychological debt, being high in psychological capital relative to the rest of your group will lead to higher levels of professionalism as rated by your supervisor or mentor. Being higher in psychological capital than others within your group will lead to being seen as more professional by others, namely supervisors, managers and mentors. Identifying and nurturing psychological capital in the midst of psychological debt will enhance positive outcomes for not only the individual, but for the organization as well.

Psychological capital and psychological debt in and of themselves did not have significant relationships with these two outcomes. It is psychological capital in concert with the psychological debt where the relationships emerge as significant.

*Strengths of Findings*

The contribution of this study is not only confirmed the impact of psychological capital and psychological debt, but more importantly, supported the framework of psychological net worth. As organizations strive toward positive outcomes, it is important to not only assess the psychological capital with its positive impact or the psychological debt and subsequent negative outcomes, but the interaction of psychological capital and psychological debt in concert. While this is just a small step in formulating a framework of psychological net worth, it provides the impetus to continue work on a topic that can have strong implications for organizations.

*Limitations of Findings*

While providing initial confirmation of a psychological net worth framework, this study has a number of limitations. One of the limitations is found in the sample population. The number of participants and the subsequent number of groups to include in the multi-level
modeling was small. Most statistical techniques, and especially the multi-level models are biased toward larger level 1/level 2 ratios. While the number of groups involved fell within the required limits for multi-level modeling, the statistics would be more robust with more and larger groups. The sample consisted of third and fourth year medical students, who while at work within a clinical setting, were still in the midst of their medical education and not embedded within the context of a long-term job or organization. Because the students work their way through rotations within different specialty areas during these training years, consistent supervisors and evaluations were difficult to find and the variability between raters may have created statistical problems. The self-report measure on the part of students may be biased due to social desirability. In addition, as leaders evaluated students on organizational citizenship skills, which by may not be obvious to mentors or supervisors as most of these behaviors happen out of view and are not evaluated or rewarded in any way. The construct of psychological debt may also be a limitation. The constructs used emerged from the literature as contributing to psychological debt; however, there may be others that are more robust or more relevant to measure liabilities brought into organizations by individuals. Finally, the results of this study cannot be generalized to all industries or organizations. While sampling medical students within a clinical setting can provide valuable insights into professional education and clinical settings, it may not be applicable to other types of organizations and settings.

**Implications for Research**

This study is among the first to explore the need to explore a balanced approach to organizational assets and liabilities by creating a framework of psychological debt. Consequently, there are numerous ways in research can continue to refine and develop this framework. There is a need to expand this research to not only larger sample sizes within the
professional education setting, but also to expand to other types of organizations and industries. Continual refinement of the construct of psychological debt is needed to identify those factors most salient to contributing liabilities within an organization. In addition, mediating and moderating variables could be added to the framework to measure impact and results.

The dimensions of psychological debt require empirical inquiry. Many of the factors have been tested in prior work, and have existing validated measures; however the majority of these factors have been tested independent of each other. Testing psychological debt in an inclusive research design provides scientists with the opportunity to identify antecedents and impacts of each, as well as creating the capacity to test the Net Asset or Net Liability that individuals may bring to organizations as well as the impact of these on outcomes.

Organizations capable of identifying the best predictors of these negative organizational conditions will be best positioned to avoid or remedy them. Testing the role of interventions in the face of psychological debt may also provide noteworthy opportunities for study. Experimental designs aimed at testing the impact of manipulating the group or leadership dynamic on psychological debt factors may offer great insights into the development and sustainability of psychological debt. The more that is understood about psychological debt, the greater opportunities organizations will have to avoid or counter-measure these negative conditions.

Research may also test the impact of psychological debt on other organizational behaviors - such as turnover, turnover intentions, work performance, trust, leader-member exchange quality and other salient outcomes. As the impacts of these negative circumstances can be identified, the resulting emphasis placed on identifying, preventing, and limiting these attributes would warrant attention in organizational behavior research and practice.
Research may also further test the psychological balance in organizations by examining the psychological capital and debt simultaneously in research designs. While this study made an initial attempt to do so, examining instances where individuals have Net Assets or Net Liabilities - and the resulting impacts on performance, morale, motivation, satisfaction, organizational and group cohesion will illuminate the interplay and guide future work. Determining the mechanism for calculating Net Assets and Liabilities will also require analysis.

**Implications for Practice**

By articulating a psychological balance sheet, leaders have the ability to assess the balance between psychological capital and psychological debt. In positive environments - Net Assets, the psychological capital in organizations should be greater than the psychological debt. Leaders should strive to maximize this positive balance by finding strategies to simultaneously increase psychological capital and decrease psychological debt.

Leaders can take several strategies to maximize psychological capital and minimize psychological debt. Once sources of psychological debt are identified, it is important for organizations to provide remedies (Reb, Goldman, Kray, & Cropanzano, 2006). An organizational remedy was defined as an action carried out by an organization to decrease the negative impact of a debt or injustice in the organization. Creating a remedy happens when an organization initiates an action to atone for an organizational debt to an aggrieved worker in order to restore a perception of organizational support and eliminate a desire for revenge or counterproductive behavior. This may include instrumental remedies which provide instrumental or economic benefits to the worker or it may be addressing needs that restore belief in the organization aside from instrumental remedies (Reb et al., 2006). By providing redress for organizational debt, an organization may minimize the burden of debt carried by the
organization.

An organization may also plan strategically to create an organizational culture which works toward eliminating psychological debt. By understanding the warning signs of psychological debt, the organization may implement training and educational programs to develop employees’ abilities to handle work and interpersonal situations in a healthier manner, thereby minimizing the psychological debt. In addition, policies and procedures can be implemented in order to create an environment that protects against psychological debt.

Finally, an organization can proactively work to develop and improve psychological capital through selection of employees, training and educational opportunities, implementation of policies and procedures and providing support and encouragement for psychological capital to be an integral part of the organization.

Conclusions

This work articulated and examined a framework of psychological debt as a complimentary, albeit counter conceptualization to psychological capital - aimed at providing a more balanced view of the psychological state of organizations. The results confirmed the positive impact of psychological capital, the negative impact of psychological debt and initial steps in identifying how the interaction of psychological capital and psychological debt---psychological net worth---impacts organizational outcomes. The results provide several implications for research and practice, but more importantly provides some language to guide further dialogue around the positive and negative psychologies that impact organizations today. Further conceptual refinements are warranted, but this initial empirical examination of psychological net worth has provided a more balanced view of psychology in organizations.
Chapter VI

Psychological Net Worth:
Finding the Balance between Psychological Capital and Psychological Debt

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ABSTRACT

This study examined a proposed framework of psychological net worth that builds on the current psychological capital conceptualization of positive psychological assets provided to an organization by articulating the construct of psychological debt or those psychological liabilities in an organization identified as organizational commitment, organizational citizenship behaviors, professionalism and subjective-wellbeing. Psychological debt is described as the negative individual attributes that hamper productivity, morale and effectiveness in organizations and are described using the dimension of emotional labor, job insecurity, job stress, job deviance, and stigmatic injustice. Data were collected from 166 third and fourth year medical students and 56 physician mentors in a Midwestern medical school using Hierarchical Linear Modeling with results indicating several significant relationships between Psychological Capital and Psychological Debt, including an interactive effect with psychological capital and psychological debt on organizational outcomes.
Psychological Net Worth:

Finding the Balance between Psychological Capital and Psychological Debt

*The greatest tragedy in America is not the destruction of our natural resources, though that tragedy is great. The truly great tragedy is the destruction of our human resources by our failure to fully utilize our abilities, which means that most men and women go to their graves with their music still in them.*

*Oliver Wendell Holmes*

In an increasingly complex world, organizations are discovering that in order to maintain a competitive advantage, it is essential to focus on their most valuable resource---the assets provided by their members. In a shift from decades of focusing on a deficit model of organizations that emphasized the liabilities or negative aspects of members, the field of organizational development has turned attention toward the positive, or those assets and benefits provided by their members that ultimately contribute to the success of the organization. Consequently, psychological capital has become a prominent organizational behavior construct in recent years with extensive conceptualizations that preceded empirical inquiry (Luthans, Avolio, Avey, & Norman, 2007; Luthans, Youssef, & Avolio, 2007). This viewpoint emphasizes what is good or positive in organizations, extending work from the positive organizational behavior movement with origins in positive psychology (Luthans, 2002).

This emphasis has motivated researchers to test not only for antecedents to positive behaviors but also to explore positive outcomes that result from psychological capital. However, studying the psychological assets of an organization, such as psychological capital, is akin to studying only the assets of a bank ledger - at first it looks highly positive and promising, until attention is given to the liabilities column. From an organizational behavior standpoint, attention must be paid to both the assets and the liabilities of an organization, which will allow for
estimating its psychological net balance. To advance this dialogue, a framework of psychological debt, to be considered in concert with psychological capital, is proposed, thereby creating psychological net worth brought to the organization. By considering both the psychological capital and the debt, a more accurate accounting of organizational behavior settings is possible and ultimately beneficial.

This study introduces and examines the construct of psychological debt - consisting of the psychological liabilities held by individuals that hamper, upend, or impede organizational progress, morale, and effectiveness. It is not the intention to return the dialogue in organizational behavior to a focus on negativity, obsessing over what is wrong in organizations, but rather to add balance to the analysis of an organization’s psychological well-being. This study tests the impact of psychological debt on otherwise positive organizational outcomes thought to be provided by psychological capital, namely organizational commitment, organizational citizenship behaviors, job satisfaction, professionalism and subjective well-being.

**Literature Review**

In order to determine the Psychological Net Worth provided to an organization, it is imperative to identify not only the factors that provide assets (psychological capital) and deficits (psychological debt), but also those indicators that define the bottom line of the organization. In order to be competitive in today’s challenging environment, organizations need to determine the desired results – those attitudes and behaviors that will contribute to the success not only of the employees but to the organization as a whole. Those desirable outcomes that have been chosen with the context of this study are organizational citizenship behavior, organizational commitment, professionalism and subjective well-being. These four factors have been shown throughout the literature to enhance organizational effectiveness and success.
Organizational Citizenship Behavior

Organizational Citizenship Behavior (OCB) was defined as desirable behaviors that are not prescribed by or enforced in the existing job role, but practiced at the option of the individual employee (Avey et al., 2010a). These discretionary behaviors, deemed as beneficial to the organization, are not directly or explicitly recognized by the formal reward system. As such, omission is not considered punishable. These are behaviors are extra-role, or those above and beyond what is generally expected (Avey et al., 2010).

First defined as five OCB dimensions as identified by Organ (1994), Podsakof et al. (2000) further supported these five dimensions with the following definitions: *Altruism* (the helping approach of the members as in those behavior that covers help for co-workers that have a heavy work load and/or to orient new people about job tasks), *Conscientiousness* (obeying rules, following timely breaks, punctuality), *Sportsmanship* (willingness to tolerate less than ideal circumstances without complaining and refraining from activities such as complaining and petty grievances), *Civic Virtue* (behavior indicating that they responsibly participate and rationally show concern for the life of the organization) and *Courtesy* (behavior of individuals that is aimed at preventing work-related problems with others).

It was believed that OCBs could maximize the efficiency and productivity of the employees and ultimately, the functioning of an organization. Organizational citizenship behaviors have been linked to a number of positive organizational outcomes, including reduced absenteeism and reduced turnover, leading to more ability of workgroup performance. In addition, positive consequences included increased employee satisfaction and organizational loyalty as well as consumer loyalty and satisfaction (Chahal & Mehta, 2010). Organizational performance is enhanced by increasing productivity, freeing up resources by reducing the need to
devote scarce resources to maintenance and helping to coordinate activities both within and across work groups. In addition, OCBs strengthen the organization’s ability to attract and retain best employees, increase the stability of the organization’s performance and enable the organization to adapt effectively to environmental changes (Podsakoff et al., 2000). Overall, positive OCBs create a positive environment which enhances the morale and sense of belongingness, resulting in both stability of workgroup performance as well as adaptability to meet change and challenges within a competitive work environment (Chahal & Mehta, 2010).

Organizational Commitment

Organizational commitment (OC) has garnered increasing interest for organizations because of positive outcomes such as extra-role behaviors, absenteeism and turnover (Wasti, 2003). Organizational commitment is the relationship that an employee has with an organization that includes three basic components; 1) the affective component that refers to the employees’ emotional attachment to, identification with and involvement with the organization, 2) the continuance component that refers to commitment based on the costs associated with leaving the organization and 3) the normative commitment that refers to the employees’ feelings of obligation to remain with the organization (Wasti, 2003). To better understand an employee’s relationship with an organization, Meyer and Allen (1991) proposed analyzing all three components simultaneously. These components were seen as a psychological state where an employee experiences each one to varying degrees and characterizes the employee’s relationship with the organization, including decisions to stay with or discontinue membership within the organization. This model of organizational commitment has been found to extend across occupations (Irving, Coleman & Cooper, 1997).

Organizational commitment has been primarily linked to employee turnover; committed
employees have been found to be less likely to leave an organization than those who are uncommitted (Meyer & Allen, 1991). Because of the benefits to organizations, commitment is seen as a quality in employees that organizations desire and work to enhance.

**Professionalism**

Professionalism, once viewed as primarily found within the certain careers viewed as “professional”, such as medicine or law, has expanded to fields such as education and business and is increasingly seen as an important outcome measure. The attributes of a professional, while encompassing education and training, also includes levels of identification with and commitment to a particular profession (Hwang et al., 2009). Attitudes are linked to values and operate as basic axioms for decisions about appropriate ways to behave and are rooted in a core set of humanistic values; honesty, integrity, compassion, respect and empathy. These attitudes are consequently identified through a set of proscribed behaviors and actions that reflect on the identification with a professional role and include ethical and moral actions, clinical competence, communication skills, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008). Underpinning these behaviors is a social contract between those in the profession and those they serve (O’Sullivan & Toohey, 2008). While the concept of professionalism can incorporate a wide variety of definitions across a variety of occupations, most would agree that it is a desirable quality of an organizational member.

Five behavioral dimensions of professionalism within the field of healthcare have been formulated by Swick (2009) that accounts for physician action individually and collectively, including: 1) **Subordinating Self-interest** (subordinate one’s self-interest to the interest of others, 2) **Ethics and Moral Values** (adhere to high ethical and moral standards, 3) **Humanistic Values** (evince core humanistic values, including honesty and integrity, caring and compassion, altruism
and empathy, respect for others and trustworthiness), 4) Accountability (exercise accountability for oneself and for others and 5) Self-reflection (incorporate self-reflection about one’s actions and decisions). The American Board of Internal Medicine (ABIM) as a model of professionalism, describes the core of professionalism as constituting those attitudes and behaviors that serve to maintain patient interest above physician self-interest (Archer et al., 2008).

Professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates (Hwang et al., 2009). Conversely, individuals who exhibit unprofessional behavior early in their career (as in medical school) tend to continue that trend into their practice (Rademacher, Simpson & Marcadante, 2010). There is evidence linking unprofessional behavior with adverse clinical practice outcomes and is the most common reason for physicians to receive disciplinary action (O’Sullivan & Toohey, 2008). Medical error and poor health outcomes have been linked to professionalism issues, i.e. 35% of iatrogenic injury relates to failure of professionalism, in contrast to those injuries resulting from inadequacies of knowledge (1% of injuries) (O’Sullivan & Toohey, 2008). While there is paucity of research outcomes in other fields, there is a call for professionalism to cope with ethical and moral issues along with challenges in meeting higher level standards and goals.

**Subjective Wellbeing**

Subjective well-being (SWB) is an umbrella term used to describe the level of well-being people experience according to their subjective evaluations of their lives. It is based on the concept that although people live in objectively defined environments, it is their subjectively defined worlds that they respond to (Keyes, Shmotkin & Ryff, 2002). This subjective evaluation occurs within individuals’ experiences and may include both positive a negative
evaluations of judgments and feelings about life satisfaction, interest and engagement and affective reactions to life events as well as satisfaction with work, relationships, health, recreation, meaning and purpose (Diener & Ryan, 2009).

This construct has been studied as a cognitive process of judgment and attribution, constituents of emotional experience, goal-related behavior, time perspective, short-term and long-term effect of life events and with cross-cultural variability. In addition, it has been seen as having an affective component that encompasses both the positive and negative evaluations and feelings about long-term life satisfaction, including interests and engagements (Keyes, Shmotkin & Ryff, 2002). Subjective well-being is a construct that concerns optimal experience and evaluations of their lives, identified from self-report measures of a global evaluation of life experience and subjective standpoint of the responder (Diener & Ryan, 2009).

High levels of subjective well-being are linked to a plethora of positive outcomes on both individual and societal levels, including better health and better social relationships. In addition, individuals with high SWB are likely to have increased productivity, higher performance, more resilience on the job and more likely to show organizational citizenship behaviors. They are more likely to act in ways that benefit their communities and societies, such as higher rates of volunteerism, ethical behavior and interpersonal trust (Diener, Kesebir & Lucas, 2008).

**Psychological Capital**

There has been increasing interest in the application of positive psychology to the leadership field, due primarily to research that linked positivity to enhanced well-being and performance at work (Walumbwa, Peterson, Avolio, & Hartnell, 2010). Rather than devoting efforts to fix the deficient, this positive approach recognized and developed employee strengths as a way to help employees navigate the increasingly challenging workplace (Avey, Luthans, &
Jensen, 2009). To identify and measure positive psychological resources, the core construct of psychological capital was introduced to represent individuals’ positive psychological state of development (Luthans et al., 2007). The concept of psychological capital differed from human capital (what you know in terms of knowledge, skills, abilities and experience), social capital (whom you know, including networks and relationships) and financial capital (what you have in terms of financial resources) (Avey et al., 2009; Luthans, Luthans & Luthans, 2004). Instead, psychological capital was viewed as “who you are” and “what you can become in terms of positive development (Luthans, Avey, Avolio, Norman, & Combs, 2006). Psychological capital described individuals’ common synergistic capacity that included hope, optimism, efficacy, and resilience (Luthans et al., 2007).

Hope, within the context of positive psychology, was described as a “positive motivation state that was based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals) (Snyder, Sympson, Yvasco, Borders, Babyak, & Higgins, 1996). Optimism was described as an explanatory style that attributes positive events to personal, permanent, and pervasive causes while attributing negative events to external, temporary, and situation-specific ones (Seligman, 1998). Efficacy was defined as “individuals’ conviction about their abilities to mobilize the motivation, cognitive resources and courses of action necessary to successfully execute a specific task within a given context” (Stajkovic & Luthans, 1998). Resiliency was described as the capacity to rebound or bounce back from adversity, conflict, failure or even positive events, progress and increased responsibility (Luthans, 2002).

These four components of psychological capital were heralded for creating positive organizational climate and a positive work performance (Luthans et al., 2008). While
contributing to positive work outcomes, psychological capital was linked to the reduction of counterproductive work behaviors (Walumbwa et al., 2010). Psychological capital was seen as a positive state that contributed to higher levels of effectiveness and flourishing in organizations (Luthans & Youssef, 2007). In addition, scholars argued that psychological capital impacted attitudes and behaviors that could facilitate or inhibit positive organizational change (Luthans et al., 2008).

The introduction of positive organizational behavior and psychological capital has provided a much needed balance to the deficit model of organizations, which focused on how negative or neutral phenomena impact a set of undesirable outcomes. The value of positive organizational behavior was illustrated using the analogy of health; eliminating illness does not necessarily create health. The goal of eliminating pathological problems in organizations did not necessarily create positive and healthy practices that allowed an organization to thrive (Caza & Caza, 2008). The opposite, however, may also be true. The emphasis on health may be shortsighted if an illness is present; focusing on positive organizational behavior while minimizing the negative may provide only a skewed picture of the organization.

In a critique of positive psychology, Lazarus (2003) warned against an overzealous positive approach that minimizes and dismisses negative aspects of life, such as stress and loss that often contribute to the development of individual strengths. He cautioned against making a false distinction between “positive” and “negative” human characteristics, as both contributed to the whole. While it is valuable to identify positive resources held by individuals, it may be shortsighted to ignore factors that diminish the outcomes that otherwise may be positive (Avey et.al, 2009). A more traditional approach integrated with the positive may paint a more complete picture of organizational life when taken together. Incorporating both positive and
negative explanations in the positive organizational literature, including what to do as well as what not to do, creates a more holistic picture. A multi-paradigmatic approach to provide insights into the complexities of organizational life is necessary for a complete and accurate view of the organization for both needs identification and goal development (Caza & Caza, 2008).

The problem with emphasizing only what is right (psychological capital) in organizations is the risk of overlooking potentially destructive interpersonal and social influences that may weaken an organization. Specifically, individuals may bring assets to an organization, but may also bring their issues or baggage to the organization, which may counter-balance the overall contributions. Focusing only on individuals’ strengths while overlooking their weaknesses leaves organizations particularly vulnerable to its psychological liabilities. Emphasizing an assets-only approach provides an overly simplistic or even unrealistic assessment of individuals’ value to an organization. Grandiose assessments are more likely in environments that focus on strengths alone which may prove unreliable and short-lived in the face of liabilities. This framework encourages organizations to consider psychological capital in concert with its debt, whereby a more balanced view and balanced evaluation of contributions would be informative and beneficial.

**Psychological Debt**

While many individuals may bring assets to an organization, understood as psychological capital, they may also bring negative attributes, attitudes, and may foster negative working conditions that neutralize or eliminate their benefits. These detractors are conceptualized as psychological debt. It would be wise for organizations to leverage the assets of psychological capital by identifying, evaluating and remedying elements of psychological debt. Assessing the psychological balance (net assets) consisting of both capital and debt will provide essential
information for organizations to operate in the psychological “black” and create a psychological net worth.

Identifying and defining those elements which create psychological debt creates challenges. On the surface, the antithesis of psychological capital would likely be the inverse of each of the dimensions, where hope, optimism, efficacy, and resilience, would be countered by despair, cynicism, helplessness, and fragility, respectively. For example, this would suppose that to be low in hope, individuals would start to exhibit elements of despair. In essence, that supposes that each dimension operates on a clean continuum. However, constructs within the realm of organizational development have many dimensions of meaning and are not necessarily bipolar items, i.e. pessimists are not necessarily polar opposites of optimists, or that rewards have different, but not necessarily opposite functions than punishment (Hackman, 2008). It seems difficult or nearly impossible to display both hope and despair simultaneously. The assumption that the psychological debt of an organization is best represented as the antonyms of psychological capital cannot be made or supported.

In the proposed framework of psychological debt, the relative assets and liabilities that individuals bring provide a balanced view of psychological well-being to an organization. Psychological debt is described in this framework with five categories - emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice. Each was selected for the potential negativity that results when individuals exhibit these in organizational settings.

Emotional Labor

Emotional labor referred to the level of emotional investment necessary to accomplish a job. Hochschild (1983) first described emotional labor as the management of emotions to create an observable emotional display in exchange for a wage and argued that such patterns of
behavior often resulted in emotional drain and burnout. There were three critical issues described; the emotional labor interaction, the experience of emotional labor and the personal consequences of performing emotional labor (Sass, 2000). When there was a match between displayed emotion and felt emotion known as *emotional harmony*, little energy was expended by the emotional work. However, when there was a difference between the two, a greater expenditure of energy was required due to the resulting *emotional dissonance* (Mann, 2004). The worker expended energy to realign their feelings, contributing to a drain of emotional resources and a sense of loss of emotional control which resulted in strain and exhaustion. This drain on the employee could be resolved in one of two ways; the worker could alter the displayed feelings, known as *surface acting* or create an emotional shift to the appropriate feelings within themselves, known as *deep acting* (Brotheridge & Lee, 2003).

The emotional expression used to achieve the desired organizational outcome may differ from the actual experienced emotion and may be perceived as inauthentic even while it was seen as contributing to organizational goals (Miller, 2008). Thus, this emotional labor expended by workers may cause them to experience burnout, described as a chronic response pattern to stressful work conditions involving high levels of interpersonal contact. It encompassed three dimensions: emotional exhaustion (loss of feeling, trust, interest and spirit), depersonalization (emotional detachment from service recipients) and diminished personal accomplishment (depression, low morale, withdrawal) (Brotherridge & Lee, 2003). Burnout resulted in substantial costs for individuals as well as organizations, including deteriorating physical and mental health, deterioration of social and family relationships, decreased job performance, increased intention to leave, absenteeism and turnover (Mikolajczak, Menil, & Luminet, 2007).

Emotional labor diminishes the benefits of psychological capital in organizations. When
employees experience the impact of emotional labor, the result may be emotional exhaustion and decreased job performance, disrupting the positive flow of organizational behavior (Brotherridge & Lee, 2003). Benefits brought to the organization through an employee’s hope, optimism, resiliency and efficacy are mitigated by the negative impacts of emotional labor, which detracts from organizational effectiveness and neutralizes its assets. Repeatedly having to put motions aside or embrace external emotions can cause a strain and a labor that mitigates the positive benefits of psychological capital.

**Job Deviance**

Robinson and Bennett (as cited by Mount, Ilies, & Johnson, 2006) defined job deviance as voluntary behavior of organizational members that violates significant organizational norms and in so doing, threatens the well-being of the organization and/or its members. Also known as counterproductive behaviors, these caustic behaviors are those which alienated colleagues and inhibited attainment of organizational goals and interests (Mount et al., 2006). Two types of job deviance have been identified; organizational, including behaviors directed toward the organization such as tardiness, theft, and wasting resources and interpersonal, referring to deviant behaviors directed toward people, including gossiping, verbal abuse, and stealing from co-workers (Liao, Aparna, & Chuang, 2004).

Job deviance was seen as a stressor that led to direct outcomes of fear and subsequently to a variety of negative psychological, physical and behavioral outcomes for both the individual and the organization (Schat & Kelloway, 2003). The expenditure of energy to deal with aggression leads to depletion as victims of aggression ruminated about the experience, or focused energies on preventing, reducing or avoiding continued aggression, leaving fewer resources available for performance effectiveness (Hershcovis et al., 2007). In addition to the adverse
individual effects, other effects were felt at the organizational level, including reduced employee morale, higher rates of absenteeism and turnover, as well as lower productivity (Mount et al., 2006). Negative work attitudes, such as job dissatisfaction, affective commitment, and turnover intentions resulted in job neglect, decreased job performance and diminished productivity (Schat & Kelloway, 2003).

In this framework, the benefits of psychological capital are neutralized by job deviant behaviors. Employees’ possessing job deviance pollute the work environment with destroyed relationships, feelings of angst, division, hostility, negativity, and cause disruption to the organizational flow. In instances where job deviance is high, many of the benefits of psychological capital that would otherwise benefit organizations are neutralized. Assets brought to the organization through an employee’s hope, optimism, resiliency and efficacy are mitigated by the negative impact of job deviance, which detracts from the organizational effectiveness, and provides organizations with a psychological liability that counters its assets.

**Job Insecurity**

The trend over the course of the last few decades with downsizing and restructuring has changed the nature of work as well as the contractual relationship organizations have with its workers (Huang, Lee, Ashford, Chen, & Ren, 2010). The resulting job insecurity is described as the perceived powerlessness to maintain desired continuity in a threatened job situation (Reisel, Probst, Swee-Lim, & König, 2010). Greenhalgh and Rosenblatt (2010) identified four components to job insecurity; *desired continuity* (wishing the job to continue), *threat to the job* (perceived threat whether or not it was real), *job features at risk* (losing desired features of the job) and *powerlessness* (having no control over the future of the job). It was the degree to which employees perceived their jobs, or important features of their jobs, to be threatened and to which
they perceived themselves to be powerless to do anything about it (Reisel et al., 2010).

Job insecurity included both cognitive (beliefs) and affective (emotions) components; the cognitive approach was the perception of the likelihood of negative changes to the job, including losing attractive features of the job or the job itself and the affective component was the concern, worry or anxiety about losing job features or the job itself (Huang et al., 2010). Job insecurity was viewed as one of the most important stressors in work life, leading to feelings of uncontrollably and unpredictability (de Cuyp, Bernhard-Oettel, Berntson, de Witt, & Alarco, 2008). There is also a growing body of research that linked job insecurity with negative attitudes towards the job or the organization in terms of job satisfaction, organizational commitment or organizational trust (Staufenbiel & König, 2010).

Job insecurity experienced by employees brings a psychological debt to an organization that will neutralize many of the benefits of psychological capital. The proposed framework employs job insecurity to demonstrate how feelings of worry and insecurity weigh on the minds of employees and mitigates their overall contributions to an organization. When employees experience the negative impact of job insecurity, the result is decreased physical and mental health, withdrawal behavior and a disruption of the positive flow of organizational behavior. These negative affects deteriorate the work climate in organizations and threaten the positivity that is so highly desired.

*Job Stress*

Job stress has increasingly become a common and costly problem (Hayes & Weathington, 2007). Lazarus (2003) provided the classic definition of stress as the perception of individuals that the demands of an external situation were beyond their perceived ability to cope with them. When that definition was applied to the world of work, job stress described the
perception of an employee that work demands were beyond their perceived ability to handle them. Job stress was comprised of several factors; *job stressor* referred to work-related environmental conditions thought to impact on the well-being of the worker while *strains* referred to the psychological and physiological reactions by the worker to the stressor and *health outcomes* referred to more enduring negative health states thought to result from exposure to job stressors (Hurrell, Nelson and Simmons, 1998).

A number of factors were found to contribute to workplace stress, including technological change, global competitive pressures, increased workloads, increased work travel, job insecurity, toxic work environments and managerial bullying (Avey et al., 2009). While there are many models of job stress, the Demand-Control-Support model has gained attention in the literature, identifying three characteristics of work as predictors of worker health, productivity and motivation: *job demand* (deadlines, task coordination, cognitive effort), *control* (degree of decision latitude or autonomy) and *social support* (support and encouragement from others) (Karasek, 1998).

The impact of stress depended on the intensity, duration, the number of operative stressors and available alternatives, but nonetheless, had potential severe negative individual and organizational consequences (Parker & Decotiis, 1983). Job stress also had a detrimental impact on both individual and organizational health with increasing organizational and societal health care costs (Hunter & Thatcher, 2007). Job stress creates a decrease in mental and physical health while mitigating many of the potential benefits of psychological capital in organizations. Hope, optimism, efficacy, and resiliency may each be negatively impacted by job stress. Organizations that allow job stress to pervade are making themselves highly vulnerable to neutralizing the many strengths of its employees.
Stigmatic Injustice

Stigmatic injustice was derived from organizational justice theory and explored employee perceptions regarding the nature of organizational compliance systems in shaping their commitments to the employer. Several types of fairness perceptions have been identified; *Distributive justice* was that which refers to perceived equity in the allocation of organizational outcomes, such as material rewards or compensation, i.e. when individuals’ expectations and desired outcomes are in line with the outcomes, they will perceive distributive justice. *Procedural justice* focused on the fairness and integrity of organizational decision-making processes, such as consistency and absence of bias and *interpersonal justice* referred to the treatment during the process (Johnson, Holladay, & Quinones, 2009).

Based on this foundation of stigma, the construct of *stigmatic injustice* emerged to describe feelings of mistreatment or inequity that individuals experience in organizations stemming from negative attributions based upon personal characteristics and differences that demotivate individuals and result in alienated feelings (Mackie, Hamilton, Susskind, & Rosselli, 1996). Gifford, Barbuto, and Pennisi (2010) developed a framework of workplace justice based on stigma or the attributions based on differences to include: *functional stigma* (characteristics or attributes that classify a target differently are valued), *acknowledged stigma* (target is aware that others devalue characteristics or attributes, but does not negatively impact the target), *interpersonal enacted stigma* (target is negatively affected by the attitudes, behaviors or actions of others who devalue an attribute or characteristics of the target), *organizational enacted stigma* (stigma experienced due to organizational policies or norms that sustain stigmatization or lack of policies which protect targets from stigmatization), and *internalized stigma* (target accepts the legitimacy of the stigma and feels devalues self because of the stigma).
The process of stigmatic injustice may lead to deleterious psychological and physical effects for a target of the stigma, particularly in cases of interpersonal enacted stigma, organizational stigma and internalized stigma where an employee feels devalued and alienated by individuals within the organization and the organization itself (Gifford et al., 2010). Experiencing stigmatic injustice may lead to an alienative commitment or a negative form of attachment resulting from a forced course of action by environmental pressures, experienced loss of control and lack of alternatives (Howard & Cordis, 2010). Stigmatic injustice prevents workers from feeling comfortable in work environments and this discomfort will neutralize many of the benefits of psychological capital. Stigmatic injustice also leads to feelings of being treated unfairly and dissonance in the workplace. The repeated negative affect of stigmatic injustice may create such feelings of unfairness and alienation that the benefits of their strengths can be mitigated. Organizations with policies and social structures that create and sustain stigma in the workplace are less likely to realize their full potential.

**Hypotheses**

Individuals bringing psychological capital into organizations will more likely contribute to higher levels of organizational effectiveness and performance in the following ways:

*Organizational Citizenship Behaviors.* Individuals higher in PsyCap would seem to be more likely to engage in OCBs than would those with lower PsyCap. Individuals high in PsyCap would be less likely to respond with counterproductive work behaviors such as workplace deviance because of increased resilience to workplace stressors. Psychological debt experienced by individuals will decrease the amount of organizational citizenship behavior. As an individual is burdened by the negative impact of emotional labor, job deviance, job insecurity, job stress, or stigmatic injustice, their psychological resources will become more depleted; i.e. an individuals
who experience marginalization and stigmatization within the workplace will find it more difficult to remain hopeful or optimistic and will likely drain the resources provided by resiliency. Over a period of time, individuals will expend resources to deal with their debt than to build upon their assets of psychological capital.

*Organizational Commitment.* Individuals that are experiencing psychological debt will find it more difficult to feel a sense of loyalty or commitment to an organization; i.e. an individual who is experiencing job insecurity will have more difficulty experiencing a sense of commitment to the organization. High psychological capital will maintain an on-going relationship with the organization while those experienced psychological debt will likely lose a sense of loyalty because of challenges within the work environment.

*Professionalism.* While professionalism has not been directly linked to psychological capital in the literature, the assumption could be made that an individual with high psychological capital is likely to be more professional. Conversely, an individual that is experiencing high psychological debt is not likely to be exhibiting professional behaviors and attitudes; i.e. an individual who is experiencing workplace deviance is not likely to exhibit professional behaviors in their relationships to their colleagues or organization.

*Subjective well-being.* Individuals with higher levels of psychological capital are more likely to experience greater subjective well-being in terms of their work. With the psychological resources of hope, optimism, self-efficacy and resiliency, they are likely to have a more positive subjective interpretation of their work-life which will consequently impact their overall well-being. Individuals who are experiencing high levels of psychological debt are not likely to experience SWB; i.e. an individual who is experiencing emotional labor in the workplace may not have a sense of emotional or cognitive well-being on the job.
Psychological capital creates a positive and supportive organizational climate which contributes to both individual and organizational performance (Luthans et al., 2008). In addition, it is linked to a positive appraisal of circumstances and probability for success, contributing to positive work outcomes while reducing counterproductive work behaviors (Walumbwa et al., 2010). It is predicted that psychological capital will contribute to positive individual and organizational outcomes.

Hypothesis 1a: Individuals’ psychological capital will be positively related to organizational citizenship behaviors.

Hypothesis 1b: Individuals’ psychological capital will be positively related to organizational commitment.

Hypothesis 1c: Individuals’ psychological capital will be positively related to professionalism.

Hypothesis 1d: Individuals’ psychological capital will be positively related to subjective well-being.

Psychological debt will detract from organizational effectiveness as identified in the elements of emotional labor (Mikolajczak, 2007), job insecurity (Greenlagh & Rosenblatt, 2010), job stress (Hunter & Thatcher, 2007), job deviance (Mount et al, 2006) and stigmatic injustice (Gifford, 2010). These components of psychological debt will reduce organizational effectiveness when emotional labor, job insecurity, job stress, job deviance and stigmatic injustice create a negative impact with reduced organizational commitment, higher turnover intentions, lower morale, less satisfaction and decreased workplace performance (Bechtholdt et al, 2007). It is predicted that these identified components of psychological debt will be negatively related to positive organizational outcomes.
Hypothesis 2a: Individuals’ psychological debt will be negatively related to organizational citizenship behaviors.

Hypothesis 2b: Individuals’ psychological debt will be negatively related to organizational commitment.

Hypothesis 2c: Individuals’ psychological debt will be negatively related to professionalism.

Hypothesis 2d: Individuals’ psychological debt will be negatively related to subjective well-being.

Psychological capital contributes to individual and organizational effectiveness and it is important for an organization to identify and develop these organizational assets (Avey et al., 2010). However, although there may be the presence of psychological capital existing within the organization, psychological debt may cancel out any benefits of psychological capital to the organization. Consequently, it would be beneficial for organizations to not only identify psychological capital, but also the elements of psychological debt that may impact negatively on the organization. By analyzing the psychological capital present as well as psychological debt carried by the organization, a balance sheet may be created whereby an organization can evaluate if it carries a positive balance reflecting psychological capital assets or a negative balance reflecting psychological debt. Organizational development is challenged to create organizations that thrive in a complex world. Therefore, it is important for organizations to identify approaches in organizational development that will benefit the health of the organization (Luthans et al, 2008). An accurate assessment of the organization will depend on creating a realistic picture of both assets and liabilities carried by the organization (Caza & Caza, 2008).
By recognizing psychological capital and psychological debt, an organization may leverage the benefits to the organization by working to increase and develop psychological capital as well as working to simultaneously reduce psychological debt.

*Hypothesis 3a*: The relationship between psychological capital and organizational citizenship behaviors depends upon individuals’ psychological debt.

*Hypothesis 3b*: The relationship between psychological capital and organizational commitment depends upon individuals’ psychological debt.

*Hypothesis 3c*: The relationship between psychological capital professionalism depends upon individuals’ psychological debt.

*Hypothesis 3d*: The relationship between psychological capital and subjective well-being depends upon individuals’ psychological debt.
Methods

This study examined the impact of psychological debt, consisting of *emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice* on the positive organizational outcomes variables of *organizational commitment, organizational citizenship, professionalism and subjective well-being* that are enhanced through psychological capital. Psychological capital is viewed as psychological resources adding to the effectiveness of an organization while psychological debt is viewed as diminishing the positive impact on organizational outcomes.

Recent research emanating from the field of Positive Organizational Scholarship has not included constructs that would diminish or detract from the positive benefits of psychological capital. Consequently, the design of this research project is to simultaneously identify the impact Psychological Capital brought to an organization by an individual and the Psychological Debt experienced by the individual and the subsequent impact on organizational outcomes. Both psychological capital and psychological debt are viewed as independent variables in the design and the organizational outcomes of *organizational citizenship behaviors, organizational commitment, professionalism and subjective well-being* are viewed as dependent variables.

Participants

Participants in this study were participant-rater dyads consisting of third and fourth year medical students who are in the midst of their clinical training at a Midwestern medical school and clinical career mentors who follow their development. Return rates were calculated as the actual number of surveys completed by participants and leaders. Of the 256 survey email invitations distributed to the students, 166 were completed for a 69% return rate. Of the survey invitations sent to 72 mentors asking for evaluations of the 166 students, 56 (77% return rate)
responded with a total of 122 student evaluations, or 73% of students being evaluated. There were 56 groups with the average group have 2.41 members.

Students who responded were 53.3% female and 41.5% male with 48.1% in their third year of medical school and 51.9% in their fourth year. In addition, ethnic backgrounds were reported with 72.8% as White/Caucasian, 2.6% Korean, 1.5% Hispanic, 2.6% Black/African American, 3.6% Vietnamese, 1% Japanese, 1% Filipino, 2% Indian/Pakistani and 2% with no response. Raters or mentors were clinical physicians who worked with students within their clinical rotations. Demographic information on the mentors was not gathered as it was deemed extraneous to this study.

**Procedures**

Participants were invited to participate through an e-mail invitation to fill out a survey to self-report measure of total psychological capital, psychological debt components (emotional labor, job deviance, job insecurity and stigmatic injustice) and self-assessments of performance outcomes (organization commitment, professionalism and subjective well-being). Included with the invitation was a link to the web-based survey embedded in the secure online classroom platform of the university. Mentors were subsequently asked to evaluate each of the students on a measure of observed organizational citizenship behaviors and professionalism behaviors on a separate web-based survey. Data was collected and analyzed at student and mentor (dyad) level. Participants provided self-report demographic data and self-assessment of the independent variables of psychological capital, experienced psychological debt and the impact on dependent variable performance outcomes. Mentors or raters assessed the independent variables of performance outcomes as objectively observed.
Measures

Psychological Debt was measured by the following: Emotional Labor using Emotional Labor Scale (Surface Acting, Deep Acting) (Brotheridge & Lee, 2003), and a 2-item Burnout scale (West et al., 2009), Job Insecurity with the Job Insecurity Scale (De Witte et al., 2010), Job Stress with the Demand-Control-Support Scale (Karasek, 1979), Stigmatic Injustice with the Workplace Stigma Questionnaire (Interpersonal Enacted, Organizational Enacted, Internalized) (Gifford & Barbuto, 2009), and Workplace Deviance Questionnaire (Bennett & Robinson, 2000). The dependent variables were measured using the following: Organizational Citizenship Behavior with the Organizational Citizenship Behavior Scale (Podsakoff et al., 2000), Organizational Commitment with the Organizational Commitment Scale (affective and continuance) (Meyer & Allen , 1991), Subjective Well-being with the Subjective Well-being Scale (Diener, et al., 1985) and Professionalism with the Pharmacy Student Professionalism Scale (Chisholm et al., 2006) and the rater Climate of Professionalism Scale (Arnold et al., 2008).

Psychological Capital

PsyCap. Psychological Capital was measured as a comprehensive construct using the PsyCap Questionnaire (Luthans et al., 2007). The measure consists of 24 items slightly modified for this study measured on a 5 point Likert-type scale, which includes four subscales: self-efficacy (6 items) – e.g. “I feel confident helping to set targets/goals in my work area” Hope (6 Items) – e.g. “Right now I see myself as being pretty successful at work”; Resiliency (6 items) – e.g. “When I have a setback at work, I have trouble recovering from it, moving on; and Optimism (6 items) – e.g. “I always look on the bright side of things regarding my job”.
Psychological Debt

Emotional Labor. Emotional labor was assessed using 7 items drawn from Brotheridge and Lee’s (1998) Emotional Labour Scale and two items created for this study. The measure consists of 9 items measured on a 5 point Likert-type scale, which includes two subscales: Deep Acting (3 items) – e.g. “You pretend to have emotions that you don’t really have” and Surface Acting (3 items) – e.g. “You resist expressing your true feelings” and two items developed for the present study – e.g. “I’ve made an effort to feel empathy for a patient”. A two-item burnout measure validated by West et al. (2009) was included to determine levels of experienced burnout—“I feel burned out from my work” and “I have become more callous toward people since I took this job” on a 5-point Likert scale.

Job Deviance. Job deviance was measured using the Workplace Deviance Scale by Bennett and Robinson (2000). The 15-item scale was modified to rate the exposure to job deviance as experienced by the rater. The measures used a 5-point Likert-type scale and asked respondents to indicate the number of times in the last year that they had experienced the behavior described to measure experienced organizational and interpersonal deviance.

Job Insecurity. Job insecurity was measured by using four items developed Witte (2000). These items were modified to focus on career path rather than current job situation to fulfill the needs for this study. The measure consists of a 5-point Likert-type scale with two subscales that include affective – e.g. “I feel insecure about the future of my job” and cognitive items – “I am sure I can keep my job”.

Job Stress. Job stress was measured using the Demand-Control-Support Model (DCSQ) developed by Karasek (1985). The measure consists of 15 items modified for use within this study measured on a 5 point Likert-type scale, which includes three subscales: Control (9 items)
– e.g. “My job requires that I learn new things”; Demand (5 items)—e.g. “My job requires working very fast” and Support (6 items) – e.g. “People I work with take a personal interest in me”.

Stigmatic Injustice. Stigmatic injustice, described as stigmatization and marginalization due to injustice within the workplace was measured using 10 items from the Workplace Stigma Questionnaire (Gifford & Barbuto, 2009). Three of the five components of stigma which focused on negative outcomes of stigma were included in this study (interpersonal enacted, organizational enacted and internalized) were measured using items Workplace Stigma Questionnaire (WSQ) with a 5 point Likert-type scale—e.g. “People in my organization do not treat me as an equal” (Interpersonal Enacted), “Policies to protect me from discrimination are not enforced in this organization” (Organizational Enacted), and “Because others think negatively of me, I think negatively about myself” (Internalized).

Organizational Outcomes

Organizational Citizenship Behavior. Organizational citizenship behaviors were measured with the Organizational Citizenship Behavior Scale, developed by Podsakoff and MacKenzie (1989). This measure uses 12 items from the scale that have been modified for use in this study that include altruism, conscientiousness, civic virtue, sportsmanship and courtesy—e.g. “Attendance at work is above the norm” (conscientiousness).

Organizational Commitment. Allen and Meyer (1990) developed three scales of commitment to assess three types of commitment (affective, continuance and normative) that an employee may have to an organization. Eight items were chosen to reflect affective and continuance aspects of organizational commitment for this study and are rated on a 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree”—e.g. “This organization has a great deal of
personal meaning to me” (affective).

Professionalism. Professionalism (self-assessed) was measured using the Pharmacy Professionalism Instrument (Chisholm et al., 2006), using 15 items that reflect the 6 tenets of professionalism listed above which are *altruism, accountability, excellence, duty, honor and integrity*, and *respect for others*. Developed for use by pharmacy students within clinical rotations, it was deemed as a valid instrument to use with medical students within clinical rotations. Professionalism, as assessed by the rater, was measured using 11 items from several measures developed by the University of Missouri-Kansas City School of Medicine and the University of Kentucky School of Medicine that identifies professionalism behavior within medical students including items such as—e.g. “If the student makes an error, he/she admits to it” and “The student is respectful of the beliefs and values of others”. Two additional questions were added to ascertain expectancies about the career and professional development of the student—e.g. “The student is likely to be placed in a residency program of their choice”.

Subjective Well-being. Subjective well-being was measured using the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffen, 1985). The SWLS (Diener et al., 1985) is a 4-item scale to measure affective and cognitive components of life satisfaction using a 5 point Likert-type scale with items indicating life satisfaction - “In most ways my life is close to my ideal”.

Demographics. A series of demographic profile questions asked students to select their sex, ethnicity, year, state of origin, age, current clinical rotation and intended specialty choice if known.
Analysis

Because data were collected from both third and fourth year medical students and their mentors, multi-modeling data analysis procedures were calculated using SAS-PROC allowing data to be examined from two levels---the student (level 1) and the mentor (level 2). Subsequently students are “nested” within each mentor, creating the ability to examine data in two ways; students as well as student/mentor dyads. HLM analysis results in estimates of error and significance that traditional regression cannot. By utilizing HLM, researchers can analyze within group (WG) and between group (BG) level variance, thereby obtaining higher statistical rigor than simple correlations and regression analysis while avoiding assumptions of independence (Snijders & Bosker, 1999).

Results

Simple Statistics and Correlations

Variables means, standard deviations and correlations appear in Table 1. A significance level of .05 ($p<.05$) was used in the data analysis. Scale items were divided into subscales for each variable. Mentor report variables (level 2) were differentiated from student report variables (level 1).

Scale reliabilities for the variables utilized in this study are provided in Table 1 and are as follows; Psychological Capital had a reliability of ($\alpha=.87$) and its subscales reported reliabilities of hope ($\alpha=.71$), optimism ($\alpha=.56$), resilience ($\alpha=.77$), and self-efficacy ($\alpha=.67$). Psychological debt measures reported the following reliabilities; Emotional Labor ($\alpha=.74$) with the subscales of surface acting ($\alpha=.80$), deep acting ($\alpha=.79$), emotional work ($\alpha=.23$), burnout ($\alpha=.73$); Workplace Deviance ($\alpha=.81$) with subscales wd-interpersonal ($\alpha=.90$) and wd-organizational ($\alpha=.75$); Job Insecurity ($\alpha=.88$); Job Stress ($\alpha=.81$) with its subscales of js-demand ($\alpha=.65$), js-
control (α=.81), js-support (α=.86); Stigmatic Injustice (α=.90) with its subscales of interpersonal enacted (α=.77), organizational enacted (α=.85) and internalized (α=.73). In addition, organizational outcome measures also reported reliabilities of Organizational Commitment (α=.78), Organizational Citizenship Behaviors (α=.79), Professionalism-self (α=.85), Professional-mentor (α=.97) and Subjective Well-Being (α=.85). While several of the subscales were below the acceptable reliability standard, when combined together into the inclusive measure, reached an acceptable level of reliability.

The results in Table 1 highlight correlations between total psychological capital, components of psychological debt (emotional labor, job deviance, job insecurity, job stress, and stigmatic injustice), and outcome variables (organizational citizenship behaviors, organizational commitment, professionalism (mentor/student) and subjective well-being). Several significant correlations were found.

There were significant relationships between psychological capital and reported psychological debt components (emotional labor, job insecurity, job stress, workplace deviance, stigmatic injustice). Psychological capital was significantly negatively related to emotional labor ($r=-.28$), meaning that individuals with psychological capital were less likely to experience emotional labor. Psychological capital was also negatively related to job insecurity, ($r=-.68$), meaning that individuals with psychological capital are less likely to experience job insecurity. Psychological capital was also negatively related to job stress, ($r=-.33$), meaning that individuals who have psychological capital are less likely to experience job stress. Psychological capital was negatively related to stigmatic injustice ($r=-.47$), meaning that individuals with high psychological capital are less likely to experience stigmatic injustice. Psychological capital was
negatively related, albeit weakly, to workplace deviance \((r=-.19)\), meaning that individuals with psychological capital were less likely to experience workplace deviance.

The components of psychological debt revealed several significant relationships with organizational outcomes. There were no significant correlations between emotional labor and the outcomes of organizational citizenship behavior, organizational commitment and mentor-rated professionalism. However, there was a significant negative relationship between emotional labor and self-rated professionalism \((r=-.23)\), meaning that those experiencing emotional labor are less likely to self-report professionalism. There was also a negative relationship between emotional labor and subjective well-being \((r=-.25)\), meaning that those experiencing emotional labor are less likely to experience subjective well-being.

Job insecurity was not significantly correlated to organizational citizenship behavior, organizational commitment or mentor-rated professionalism. However, there was a significant negative relationship with of job insecurity with professionalism (self-rated) \((r=-.20)\), meaning that individuals experiencing job insecurity are less likely to self-report professionalism. In addition, there was a negative relationship between job insecurity and subjective well-being \((r=-.52)\), meaning that individuals experiencing job insecurity are less likely to report subjective well-being.

Job stress did not have significant relationships with organizational citizenship behaviors, organizational commitment, mentor-rated professionalism or subjective well-being. However, there was a significant negative relationship between job stress and self-reported professionalism \((r=-.20)\), meaning that individuals reporting higher levels of job stress are less likely to report professionalism.
Stigmatic injustice had no significant relationships between the outcomes of organizational citizenship behavior, organizational commitment or mentor-rated professionalism. However, stigmatic injustice had a significant negative relationship with self-reported professionalism ($r = -0.36$), meaning that individuals experiencing stigmatic injustice are less likely to report professionalism. Stigmatic injustice also had a negative relationship with subjective well-being ($r = -0.41$), meaning that individuals experiencing stigmatic injustice are less likely to report subjective well-being.

There were no significant relationships found between workplace deviance and the outcomes of organizational citizenship behavior, organizational commitment, mentor-rated professionalism and subjective well-being. However, there was a significant negative relationship between workplace deviance and self-reported professionalism ($r = -0.45$), meaning that individuals experiencing workplace deviance are less likely to report professionalism.

**Multilevel Models**

Data in this study was collected from students and their mentors. Data collected from two sources is multilevel data as it is drawn from the mentors (level two) and the students (level one). Hierarchical Linear Modeling (HLM) is a statistical technique that allows an analysis of the relationships at the two levels (dyads) (Snijders & Bosker, 1999). The analysis provided by HLM adopts a two-level approach to cross-level investigations where the Level 1 model is estimated separately for each student. Organizational citizenship behaviors and professionalism were examined separately as level 2 variables (rated by mentors). Each individual was “nested” within each mentor, creating the ability to examine data for both individual participants and their raters. A separate model was run for each independent variable. Interclass correlation coefficients (ICC) were determined for each variable indicating the value of running a multi-
level model over a simple regression model. The random intercept was significant for all models with the exception of one which was close enough to keep for consistency purposes.

**Results of Multi-level Models:**

**Hypothesis 1: Testing the Relationship of Psychological Capital and Outcome Variables**

1. Psychological Capital and Professionalism-Self

   There was a significant positive relationship between WG PsyCap and Professionalism (self), meaning that individuals who perceived themselves as higher in psychological capital than others were more likely to see themselves as professional. There was also a significant relationship between BG PsyCap and Professionalism (self), indicating that groups who reported themselves as higher in psychological capital were more likely to see themselves as more professional than other groups. The relationship between psychological capital and professionalism is found in Table 2.

   Table 2 inserted here

2. Psychological Capital and Subjective Well-being

   There was a significant relationship between WG PsyCap and Subjective Well-Being, meaning that individuals who rated themselves higher in psychological capital were more likely to rate themselves higher in subjective well-being in comparison to other individuals. There was also a significant relationship between BG PsyCap and Subjective Well-Being, indicating that groups who reported themselves as higher in psychological capital were more likely to see their subjective well-being higher than other groups. Psychological capital was not a predictor
for organizational citizenship behaviors, organizational commitment, professionalism (mentor). The relationship between psychological capital and subjective well-being is found in Table 3.

Hypothesis 2: Psychological Debt and Organizational Outcomes

1. Organizational Citizenship Behaviors and Components of Psychological Debt.

There was a significant negative relationship between WG Job Stress and Organizational Citizenship Behaviors, meaning that individuals who rated themselves higher in job stress were less likely to be seen as having higher in OCBs in comparison to other individuals. There was a significant positive relationship between WG Workplace Deviance and objective OCBs, meaning that individuals who rated themselves higher in workplace deviance were more likely to be seen as exhibiting higher OCBs than other groups. There were no significant relationships between OCBs and BG job stress, BG workplace deviance, organizational citizenship behaviors and emotional labor, job insecurity and stigmatic injustice. Table 4 shows the significant relationships between OCBs and components of psychological debt.

2. Organizational Commitment and Components of Psychological Debt.
There was a significant negative relationship between WG Job Insecurity and Organizational Commitment, indicating that groups who reported themselves as higher in experiencing job insecurity were less likely to see themselves as having more organizational commitment than other groups. There was also a positive relationship between Organizational Commitment and BG Stigmatic Injustice, indicating that groups experiencing higher levels of stigmatic injustice were more likely to report higher levels of organizational commitment.

There were no significant relationships between organizational commitment and the psychological debt components of emotional labor, workplace deviance or job stress. Table 5 shows the relationships between organizational commitment and components of psychological debt.

| Table 5 inserted here |

3. Professionalism–self and Components of Psychological Debt

There was a negative relationship between WG job insecurity and self-rated professionalism, meaning that individuals who rated themselves higher in job insecurity were less likely to see themselves as professional in comparison to other individuals. There was also a positive relationship between BG job insecurity and self-rated professionalism, indicating that groups who reported themselves as higher in job insecurity were less likely to see themselves as professional as other groups. There was a negative relationship between WG Stigmatic Injustice and self-rated professionalism, meaning that those individuals who rated themselves higher in experiencing stigma were less likely to see themselves as professional in comparison to other individuals. There was not a significant relationship between BG Stigmatic Injustice, emotional
labor, job stress and workplace deviance and professionalism-self. Table 6 shows the significant relationships between professionalism-self and components of psychological debt.

Table 6 inserted here

4. Subjective well-being and Psychological Debt

There was also a strong negative relationship between BG job insecurity and subjective well-being, indicating that groups who reported themselves as higher in job insecurity were less likely to report higher ratings of subjective well-being than other groups. There was a significant negative relationship between WG stigmatic injustice and subjective well-being, meaning that individuals who rated themselves higher in experiencing stigmatic injustice were less likely to report higher ratings of subjective well-being in comparison to other individuals. There were no significant relationships for WG Job Insecurity and BG Stigmatic Injustice. In addition, there were no significant relationships between subjective well-being and the psychological debt components of emotional labor, job stress or workplace deviance. Table 7 shows the relationships of subjective well-being and components of psychological debt.

Table 7 inserted here

Hypothesis 3: The interactive effects of psychological capital and psychological debt.

This hypothesis predicated an interactive effect of psychological capital and psychological debt. The five components measuring psychological debt were combined into one factor using sum scores in order to facilitate an efficient model. Consequently, PsyDebt=mean
of Between Group and Within Group emotional labor, job insecurity, job stress, stigmatic injustice, and workplace deviance.

*Interaction of Psychological Capital and Psychological Debt on Organizational Outcomes.*

1. **Organizational Citizenship Behavior with Psychological Capital and Total Psychological Debt.**

   The interaction between WG PsyCap and WG PsyDebt on Organizational Citizenship Behavior was significant, meaning that the effect of being above your group mean in Psychological Capital depends on whether or not your group is higher or lower than the overall mean of Psychological Debt. The more above the overall mean of Psychological Debt, the more positive the relationship of the within group effect. The WG effect of PsyCap is more positive if your group mean is higher on Psych Debt; i.e. if your group has high PsyDebt, being high in Psychological Capital relative to the rest of your group will lead to higher OCBs and you would be considered better than the norm. The interaction of psychological capital and psychological debt will impact the outcome of organizational citizenship behaviors as perceived by others. There were not significant relationships between Organizational Citizenship Behavior and BG PsyCap or WG/BG PsyDebt. Table 8 illustrates the relationships of Organizational Citizenship Behaviors with Psychological Capital and Total Psychological Debt.

   · __________

   Table 8 inserted here

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2. **Professionalism (mentor) and PsyCap and PsyDebt.**

   The interaction between WG PsyCap and BG PsyDebt on Professionalism-mentor was significant, meaning that the effect of being above your group mean in psychological capital
depends on whether or not your group is higher or lower than the overall mean of psychological debt. The more above the overall mean of psychological debt, the more positive the relationship of the within group effect. The WG effect of PsyCap is more positive if your group mean is higher on PsyDebt; i.e. if your group has high PsyDebt, being high in psychological capital relative to the rest of your group will lead to higher mentor-rated professionalism and you would be considered better than the norm. The interaction of psychological capital and psychological debt will impact the outcome of mentor-rated professionalism. There were no significant relationships with professionalism-mentor and BG PsyCap or BG/WG PsyDebt. The interaction of PsyCap and PsyDebt with Professionalism-mentor is illustrated in Table 9.

Table 9 inserted here

These two findings indicate that the effect of WG PsyCap depends upon BG PsyDebt. In other words, as BG PsyDebt increases, the effect of the WG PsyCap becomes more positive. As the average BG rating gets higher for PsyDebt, having more PsyCap than others in the group has a bigger effect from the perception of the mentor with both OCB and professionalism ratings. The two variables that became significant when looking at the interaction of PsyCap and PsyDebt using multi-level modeling were the mentor-rated Organizational Citizenship Behaviors and Professionalism, indicating that levels of psychological debt diminish psychological capital as viewed by others.

Discussion

This study tested the impact of psychological debt on the positive organizational outcomes provided by psychological capital.
Interpretation of Simple Statistics Results

Psychological Capital and Organizational Outcomes. Relationships between psychological capital and professionalism-self indicated that individuals with high psychological capital are more likely to report high levels of professionalism. Higher levels of individuals’ psychological capital have been found to impact attitudes and behaviors that could facilitate or inhibit positive organizational outcomes (Luthans et al., 2008). The capacities of hope, optimism, resilience and efficacy are likely to be reflected in individuals who subsequently see themselves as having professional behaviors and attitudes.

In addition, subjective well-being and psychological capital were also linked, indicating that individuals with the capacity for psychological capital are more likely to see their lives as overall fulfilling and satisfying. This conclusion has been implicated in previous work with mounting evidence that links psychological capital and employees’ positive appraisal of circumstances and probability for success (Walumbwa et al., 2010). While direct links from psychological capital to subjective well-being have not yet been made, it follows that individuals with high psychological capital would experience great subjective well-being, resulting in positive outcomes for both the individual and the organization.

Surprisingly, there were no significant relationships between psychological capital and organizational citizenship behaviors, organizational commitment, or professionalism-mentor. This counters work by Avey, Luthans and Youssef (2010) that psychological capital had a positive relationship with organizational citizenship behaviors and a negative relationship with counterproductive work behaviors. In addition, it does not reflect findings from previous work that individuals with high levels of psychological capital are more likely to show increased levels of commitment to the organization (Youssef & Luthans, 2007).
Psychological Capital and Components of Psychological Debt. Individuals with psychological capital are less likely to indicate the negative aspects of emotional labor. There is a link with the negative effects of emotional labor that lead to burnout and substantial costs for both the organization and the individual (Mikolajczak, Menil, & Luminet, 2007). It follows that the capacities of hope, optimism, resilience and efficacy would provide a buffer to those negative effects.

Additionally, individuals who indicated higher levels of job insecurity were less likely indicate higher levels of psychological capital. Job insecurity is the subjective appraisal of an environmental threat to a job that results in negative behavioral outcomes (Reisel et al., 2010). It follows then that the positive capacities of psychological capital will reflect a sense of security within a job that is devoid of the anxiety, stress and negative impact that comes with fear of losing a position or desired components of that work.

Indicators of job stress also were linked with psychological capital. Individuals who reported a lack of resources to meet the demands of the job, had a sense of lack of control over their work and who experienced a lack of support from others were less likely to also report higher levels of psychological capital. Those individuals experiencing higher levels of job stress have been reported to experience undesirable organizational outcomes, such as job dissatisfaction, burnout and organizational withdrawal (Hurrell et al., 2007). Psychological capital is likely to mitigate and provide a buffer to those negative effects.

Those reporting high levels of psychological capital were also those who reported lower levels of stigmatic injustice. While perceptions of fairness has been seen to lead to organizational commitment and effectiveness, the perception of injustice lead to alienative commitment and subsequent negative implications for the individual and organization (Howard
Those individuals who have high psychological capital either do not experience stigma within the workplace or their capacities, such as resilience or optimism, create a means for them to handle stigma in a more creative and positive way.

Finally, individuals who have high psychological capital may also experience less workplace deviance. Individuals who participate in deviant behaviors, such as gossiping, bullying or passive-aggressive behaviors are not likely to rate themselves as also high in psychological capital. This result lends support to previous work that indicates workplace deviance as counterproductive behaviors that result in alienation of colleagues and inhibition of organizational goals and interests (Mount et al., 2006).

**Components of Psychological Debt and Organizational Outcome.** Several significant relationships were found between elements of psychological debt and organizational outcomes, although less than predicted. Individuals who reported experiencing higher levels of emotional labor were also less likely to see themselves as professional. As professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates (Hwang et al., 2009), it follows that those individuals experiencing emotional labor will be less likely to exhibit professional attitudes and behaviors. In addition, those experiencing emotional labor are less likely to report experiencing an overall life satisfaction and well-being. As subjective well-being described the level of well-being people experience according to their subjective long-term evaluation of their lives with resulting increased productivity and higher performance (Diener, Kesebir & Lucas, 2008), it is likely that those experiencing the exhaustion and burnout that accompanies emotional labor would concurrently have diminished subjective well-being.

There was a significant negative relationship between job insecurity and professionalism, indicating that individuals reporting high levels of job insecurity were less likely to see
themselves as professional. Professionalism has been linked to a number of positive outcomes, such as job satisfaction and lower turnover rates (Hwang et al., 2009). Conversely, as individuals feel secure in their job position or in various aspects of their job, they would more likely exhibit professional behaviors and attitudes. There was also a negative relationship between job insecurity and subjective well-being. Those individuals who report higher levels of job insecurity and are burdened with the accompanying anxiety and worry about the status of their employment are less likely to experience higher levels of satisfaction with their life.

Individuals experiencing high levels of job stress were less likely to see themselves as professional. Those individuals that are experiencing job stress would be unlikely to see themselves as professional as job stress includes elements of inadequate control, frustrated hopes and expectations that contributed to burnout and emotional exhaustion (Iacovides et al., 2003). Individuals who felt they had the resources to meet job demands, had some semblance of control within their job and received support from others would more likely see themselves as exhibiting professional behaviors and attitudes.

The negative impact of stigmatic injustice was also counter to professionalism, indicating that those experiencing high levels of stigma would be less likely to see themselves as professional. As individuals suffer the negative impacts of being stigmatized within their organization, they are less likely to perceive themselves as professionals as these individuals may feel alienated, less committed and engage in behavior that may be retaliatory and caustic (Mount et al, 2006). Stigmatic injustice also was linked to lower subjective well-being and reported overall life satisfaction. As those experiencing stigmatic injustice have shown to exhibit increased anxiety, insomnia, depression, psychiatric disorders, exhaustion and coronary problems (Barclay, 2009). These negative outcomes would most certainly lead to a lower sense
Finally, individuals participating in workplace deviancy would be less likely to see themselves as professional. Also known as counterproductive behaviors, these caustic deviant behaviors result in alienation of colleagues and inhibition of organizational goals and interests (Mount et al., 2006). Professional attitudes, conversely, are those actions and behaviors that include identification with a professional role and include ethical and moral actions, clinical competence, communication skills, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008).

**Interpretation of Multi-model Results**

Using the more rigorous statistical methods found in HLM, relationships were examined for both between-group effects and within-group effects. Between group (BG) effects compares differences between groups, perhaps indicating that group affiliation or a certain mentor created a difference in results while the Within-Group (WG) effect examined the differences within individuals of a group. This statistical method yielded additional information.

In support of Hypothesis I which predicted a positive relationship between psychological capital and positive organizational outcomes, several relationships were revealed. There was a significant relationship in both WG and BG psychological capital and professionalism-self, indicating that in both individuals and groups who perceive themselves as having higher psychological capital are more likely to see themselves as professional as other individuals and groups respectively. In other words, individuals having the positive psychological capacities of hope, optimism, resilience and efficacy are more likely to see themselves as professional. As professional behaviors have been linked to positive organizational outcomes such as job
satisfaction, performance and lower turnover rates (Hwang et al., 2009), these are behaviors and attitudes desired and should be nurtured within organizations. Additionally, there was a significant relationship between both BG and WG psychological capital and subjective well-being, indicating that both individuals and groups reporting higher levels of psychological capital are more likely to report a higher life satisfaction in comparison with other individuals and groups respectively. As subjective well-being has also been linked to the positive outcomes of increased productivity, higher performance and more resilience (Diener, Kesebir & Lucas, 2008), managers and mentors would be well-served to create environments where psychological capital is nurtured and supported.

Additional support from the multi-level modeling was provided for Hypothesis 2 which predicted psychological debt having a negative relationship to positive organizational outcomes. While there were no significant relationships within the simple correlational model with organizational citizenship behaviors, several emerged within the multi-level modeling. There was a significant negative relationship between WG job stress and organizational citizenship behaviors, indicating that individuals reporting higher levels of job stress were less likely to exhibit positive OCB extra-role behaviors benefitting the organization in comparison to other individuals. If a group with a certain mentor is rated higher in OCBs, they are in turn, experiencing less stress. If managers or supervisors desire these positive organizational behaviors, they will be motivated to manage stress within the workplace, either through increasing resources to meet demands, providing more control to their employees and offering interpersonal support (Karasek, 1998).

In addition, there was a positive relationship between WG workplace deviance and organizational citizenship behaviors, indicating that those individuals reporting higher levels of
workplace deviance were more likely to exhibit organizational citizenship behaviors. While this may seem counterintuitive, it may follow that individuals who participate in deviant behaviors may be somewhat manipulative and deceiving. While many OCBs go unnoticed by managers or supervisors, those engaging in deviancy may work at making those behaviors evident in order to reap the potential benefits.

While there were no significant relationships between components of psychological debt and organization commitment within the simple correlational models, several significant relationships emerged with the multi-level modeling. There was a negative relationship between WG job insecurity and organizational commitment, indicating that individuals experiencing job insecurity would be less likely to indicate high levels of commitment to the organization. If individuals are experiencing the anxiety and worry that accompanies insecurity within a job, they are less likely to feel committed to the organization creating those negative feelings. Additionally, there was an unexpected positive relationship between BG stigmatic injustice and organizational commitment, indicating that groups suffering from stigmatic injustice may report higher levels of commitment and loyalty to the organization. While this may seem counterintuitive, groups that are experiencing stigma together may in fact, bond together in the face of that adversity. Potentially, if certain leaders create higher stigma or a prejudicial environment, members of their group may in fact, band together. While organizational commitment is a desirable outcome, this between-group effect of stigmatic injustice may ultimately backfire. Ultimately, the outcomes of stigmatic injustice are likely to be decreased emotional commitment to the organization, evaluation of authority, withholding genuine expressions of feelings or retaliatory actions (Hershcovis, et al., 2009).

In addition, there were several significant relationships for professionalism-self. The first
was a negative relationship between both BG and WG job insecurity and professionalism, indicating that both individuals and groups who reported higher levels of job insecurity were less likely to see themselves as more professional than other individuals and groups respectively. Job insecurity leads to negative outcomes of anger, burnout and diminished organizational commitment (Greenhalgh & Rosenblatt, 2010). This counters the positive outcomes of professionalism which includes ethical and moral actions, competence, sensitivity to diverse populations and acts of social responsibility (Archer et al., 2008). Manager and supervisors who desire to benefit from professional attitudes and behaviors will be motivated to provide a secure environment and provide buffers to organizational politics and environmental stressors that lead to insecurity.

There was a significant negative relationship between WG stigmatic injustice and professionalism, indicating that individuals reporting higher levels of stigmatic injustice were less likely to see themselves as professional in comparison to other individuals. As discussed earlier, the negative impacts of stigmatic injustice are counter to perceiving oneself as professional. Again, manager and supervisors would benefit from decreasing stigma in the workplace in order to receive the benefits of perceived professionalism.

Examining the final outcome of subjective well-being and components of psychological debt also indicated several significant relationships. There was a significant negative relationship between BG job insecurity and subjective wellbeing, indicating that groups reporting higher levels of job insecurity were less likely to report higher levels of life satisfaction than other groups. Organizations benefit from their employees’ perceptions of life satisfaction with behaviors and attitudes that work together to benefit their communities, organizations and societies (Diener, Kesebir & Lucas, 2008). Managers and supervisors would benefit from
increasing feelings of stability and security within their groups.

There was a negative relationship between WG stigmatic injustice and subjective well-being, indicating that individuals experiencing stigmatic injustice are less likely to report overall life satisfaction. Again, as individuals experience stigma, they are less likely to feel a sense of overall satisfaction and well-being that impacts organizational outcomes of increased performance and productivity (Diener, Kesebir & Lucas, 2008). Managers and supervisors would contribute to organizational outcomes by providing a safe environment for their employees---one that is free from interpersonal and organizational stigma.

Finally, in hypothesis 3, it is predicted that psychological debt will interact with psychological capital in a way that diminishes or neutralizes the positive contributions of psychological capital. For this last hypothesis, the five components of psychological debt were considered cumulatively as a psychological debt construct. The multi-level modeling provided two significant findings which support this hypothesis and the proposed framework of psychological net worth. These two findings examine the significant relationships in two of the positive organizational outcome variables, organizational citizenship behaviors and mentor-rated professionalism. It is noteworthy to identify these two variables as the two mentor-rated scales.

First, there was a significant relationship in the interaction of WG psychological capital and WG PsyCap*PsyDebt on organizational citizenship behaviors. Consequently, if the group has increased levels of psychological debt, being high in psychological capital relative to the rest of your group will lead to higher levels of organizational citizenship behaviors as rated by others. In other words, if you are better than the “norm” of your group, you are more likely to exhibit those extra-role behaviors that will benefit the organization. Consequently, if managers and supervisors perceive evidence of high psychological debt in their groups, it would be beneficial
to create and nurture the existing psychological capital to lead to improved organizational outcomes.

Finally, there was a significant relationship between the interaction of WG psychological capital and WG PsyCap*PsyDebt on mentor-rated professionalism. Again, if your group is experiencing increased levels of psychological debt, being high in psychological capital relative to the rest of your group will lead to higher levels of professionalism as rated by your supervisor or mentor. Being higher in psychological capital than others within your group will lead to be seen as more professional by others, namely supervisors, managers and mentors. Identifying and nurturing psychological capital in the midst of psychological debt will enhance positive outcomes for not only the individual, but for the organization as well.

Psychological capital and psychological debt in and of themselves did not have significant relationships with these two outcomes. It is psychological capital in concert with the psychological debt where the relationships emerge as significant.

Limitations of Findings

While providing initial confirmation of a psychological net worth framework, this study has a number of limitations. The number of participants and the subsequent number of groups to include in the multi-level modeling was small. While the number of groups involved fell within the required limits for multi-level modeling, the statistics would be more robust with more and larger groups. Consistent supervisors and evaluations were difficult to find and the variability between raters may have created statistical problems. The self-report measure on the part of students may be biased due to social desirability. The construct of psychological debt may also be a limitation. The components used emerged from the literature as contributing to psychological debt; however, there may be others that are more robust or more relevant to
measure liabilities brought into organizations by individuals. Finally, the results of this study cannot be generalized to all industries or organizations.

**Implications for Research**

This study is among the first to explore the need to explore a balanced approach to organizational assets and liabilities by creating a framework of psychological debt. Consequently, there are numerous ways in research can continue to refine and develop this framework. There is a need to expand this research to not only larger sample sizes within the professional education setting, but also to expand to other types of organizations and industries. Continual refinement of the construct of psychological debt is needed to identify those factors most salient to contributing liabilities within an organization. In addition, mediating and moderating variables could be added to the framework to measure impact and results.

Organizations capable of identifying the best predictors of these negative organizational conditions will be best positioned to avoid or remedy them. Testing the role of interventions in the face of psychological debt may also provide noteworthy opportunities for study. Experimental designs aimed at testing the impact of manipulating the group or leadership dynamic on psychological debt factors may offer great insights into the development and sustainability of psychological debt.

Research may also test the impact of psychological debt on other organizational behaviors - such as turnover, turnover intentions, work performance, trust, leader-member exchange quality and other salient outcomes. Research may also further test the psychological balance in organizations by examining the psychological capital and debt simultaneously in research designs. While this study made an initial attempt to do so, examining instances where individuals have Net Assets or Net Liabilities - and the resulting impacts on performance,
morale, motivation, satisfaction, organizational and group cohesion will illuminate the interplay and guide future work. Determining the mechanism for calculating Net Assets and Liabilities will also require analysis.

**Implications for Practice**

By articulating a psychological balance sheet, leaders have the ability to assess the balance between psychological capital and psychological debt. In positive environments - Net Assets, the psychological capital in organizations should be greater than the psychological debt. Leaders should strive to maximize this positive balance by finding strategies to simultaneously increase psychological capital and decrease psychological debt.

Leaders can take several strategies to maximize psychological capital and minimize psychological debt. Once sources of psychological debt are identified, it is important for organizations to provide remedies (Reb, Goldman, Kray, & Cropanzano, 2006). Creating a remedy happens when an organization initiates an action to atone for an organizational debt to an aggrieved worker in order to restore a perception of organizational support and eliminate a desire for revenge or counterproductive behavior.

An organization may also plan strategically to create an organizational culture which works toward eliminating psychological debt. By understanding the warning signs of psychological debt, the organization may implement training and educational programs to develop employees’ abilities to handle work and interpersonal situations in a healthier manner, thereby minimizing the psychological debt. Finally, an organization can proactively work to develop and improve psychological capital through selection of employees, training and educational opportunities, implementation of policies and procedures and providing support and encouragement for psychological capital to be an integral part of the organization.
Conclusions

This work articulated and examined a framework of psychological debt as a complimentary, albeit counter conceptualization to psychological capital - aimed at providing a more balanced view of the psychological state of organizations. The results confirmed the positive impact of psychological capital, the negative impact of psychological debt and initial steps in identifying how the interaction of psychological capital and psychological debt---psychological net worth---impacts organizational outcomes. The results provide several implications for research and practice, but more importantly provides some language to guide further dialogue around the positive and negative psychologies that impact organizations today. Further conceptual refinements are warranted, but this initial empirical examination of psychological net worth has provided a more balanced view of psychology in organizations.
References


relationships with affectivity, mood at work, job beliefs, and general job satisfaction.


Miller, K., & Koesten, J. (2008). Financial feeling: An investigation of emotion and
communication in the workplace. *Journal of Applied Communication Research, 36*(1), 8-32.


APPENDICES

Appendix A: Definition of Terms
**Psychological Net Worth:** The psychological net worth of an individual upon balancing psychological capital and psychological debt impacting the outcomes within an organization.

**Psychological Capital:** A construct representing an individual’s positive psychological state of development that is characterized by four psychological resources that are combined to describe individuals’ common synergistic capacity and include hope, optimism, efficacy, and resilience.

**Hope:** A positive motivation state that was based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals).

**Optimism:** An explanatory style that attributes positive events to personal, permanent, and pervasive causes while attributing negative events to external, temporary, and situation-specific ones.

**Resilience:** The capacity to rebound or bounce back from adversity, conflict, failure or even positive events, progress and increased responsibility.

**Self-efficacy:** An individuals’ conviction about their abilities to mobilize the motivation, cognitive resources and courses of action necessary to successfully execute a specific task within a given context.

**Psychological Debt:** Negative attributes and attitudes which foster negative working conditions that neutralize or eliminate the benefits of psychological capital.

**Emotional Labor:** The level of emotional investment or work necessary to accomplish a job.

**Job Deviance:** The voluntary behaviors of organizational members that violates significant organizational norms and in so doing, threatens the well-being of the organization and/or its members.

**Job Stress:** The perceptions of an employee that work demands were beyond their perceived ability to handle them.

**Stigmatic Injustice:** Feelings of mistreatment or inequity that individuals experience in organizations stemming from negative attributions based upon personal characteristics and differences that demotivate individuals and result in alienated feelings.

**Job Insecurity:** The perceived powerlessness to maintain desired continuity in a threatened job situation.

**Organizational Commitment:** The relationship that an employee has with an organization that include an affective component that describes emotional attachment to an organization, the reluctance to leave an organization based on costs and the normative sense of obligation to remain with an organization.
**Organizational Citizenship Behaviors:** Desirable behaviors that are not prescribed by or enforced in the existing job role, but practiced at the option of the individual employee and are deemed as beneficial to the organization although not recognized or rewarded.

**Professionalism:** A set of values, behaviors and relationships that underpin the social contract between those in the profession and those they serve.

**Subjective Well-Being:** An umbrella term used to describe the level of well-being people experience according to their subjective evaluations of their lives.
Appendix B: IRB Approval
May 6, 2011

Michele Millard  
Agricultural Leadership, Education and Communication  
14221 SEWARD ST OMAHA, NE 68154

John Barbuto Jr  
Agricultural Leadership, Education and Communication  
300 AGH, UNL, 68583-0709

IRB Number: 20110511667EP  
Project ID: 11667  
Project Title: Social Net Worth: Find the Balance between Psychological Debt and Psychological Capital

Dear Michele:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board’s opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study based on the information provided. Your proposal is in compliance with this institution’s Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46). Your project was approved as an Expedited protocol, category 7.

Date of EP Review: 04/29/2011

You are authorized to implement this study as of the Date of Final Approval: 05/06/2011. This approval is Valid Until: 05/05/2012.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

For projects which continue beyond one year from the starting date, the IRB will request continuing
review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

William Thomas, Ph.D.
Chair for the IRB
Appendix C:  Instructions Script
E-mail invitation to mentors:

Dear Career Mentor,

I would like to invite you to participate in a research project for completion of a dissertation on the impact of psychological capital and psychological debt on desired outcomes for organizations. Your participation will involve filling out a 23-item survey approved and reviewed by the University of Nebraska-Lincoln IRB. This survey should take you about 5 minutes to complete and will be used to briefly evaluate your mentees on professionalism and desirable behaviors within the clinical environment. You will be asked for your name as well as to name the student you are evaluating. Once the data is matched, any identifying information will be removed. Your survey responses will not be identified with you personally and I am unaware of any risks with your participation.

Your participation is voluntary and whether or not you choose to participate, you may contact me to receive a summary of the findings or contact me with any questions about this project at Michele Millard, M.S. - Office (402) 280-2928
John E. Barbuto, Jr., Ph.D., Co-Investigator – Office (402) 472-8736

The UNL Institutional Review Board has approved this project. You may also contact the IRB at UNL at (402) 472-6965 with any questions.

Your individual privacy will be maintained in all publication or presentations resulting from this study. In order to preserve the confidentiality of your responses, the data will be de-identified and only the principal investigator and faculty advisor will have access to the information.

If you agree to the above information and voluntarily consent to participate in this research, please follow the link below to the survey.

Thank you for your willingness to participate,
Reminder e-mail to mentors:

Dear Career Mentor,

I understand how busy you are, but I would like to remind you once again of the invitation to participate in a research project for completion of my dissertation on the impact of psychological capital and psychological debt on desired outcomes for organizations. This research could potentially help improve the educational experience of medical students. Your participation will involve filling out a 23-item survey approved and reviewed by the University of Nebraska-Lincoln IRB. This survey will consist of a brief evaluation of your mentee, (Name), who has voluntarily participated in this project by filling out another survey. This evaluation should take you about 5 minutes to complete and will be used to briefly evaluate your mentees on professionalism and desirable behaviors within the clinical environment. You will be asked for your name as well as to name the student you are evaluating. Once the data is matched, any identifying information will be removed. Your survey responses will not be identified with you personally and I am unaware of any risks with your participation.

Your participation is voluntary and whether or not you choose to participate, you may contact me to receive a summary of the findings or contact me with any questions about this project at Michele Millard, M.S. - Office (402) 280-2928

John E. Barbuto, Jr., Ph.D., Co-Investigator – Office (402) 472-8736

The UNL Institutional Review Board has approved this project. You may also contact the IRB at UNL at (402) 472-6965 with any questions.

Your individual privacy will be maintained in all publication or presentations resulting from this study. In order to preserve the confidentiality of your responses, the data will be de-identified and only the principal investigator and faculty advisor will have access to the information.

If you agree to the above information and voluntarily consent to participate in this research, please follow the link below to the survey.

Thank you for your willingness to participate,

Michele Millard, M.S.
E-mail correspondence to be sent to students:

Dear Student,

I would like to invite you to participate in a research project for completion of a dissertation on the impact of psychological capital and psychological debt on desired outcomes for organizations. Your participation will involve filling out a 113-item survey approved and reviewed by the University of Nebraska-Lincoln IRB. This survey should take you about 20 minutes to complete. The survey will ask for your name for mentor recruitment purposes only. Your mentor will also provide data regarding your attitudes and behaviors within your clinical rotations from their point of view. Basic demographic information, including your year, birth date, gender, current rotation and intended specialty will also be gathered. Any identifying information will be removed from the data. You and your mentor may choose to not respond to any question at your/their discretion. Your mentor will only complete a survey about your behaviors if you complete the survey. I am unaware of any risks with your participation. Your participation is purely voluntary and will not impact your participation or relationships within the Vital Signs Mentoring Program.

Your participation is voluntary and whether or not you choose to participate, you may contact me to receive a summary of the findings or contact me with any questions about this project at Michele Millard, M.S. - Office (402) 280-2928
John E. Barbuto, Jr., Ph.D., Co-Investigator – Office (402) 472-8736

The UNL Institutional Review Board has approved this project. You may also contact the IRB at UNL at (402) 472-6965 with any questions.

Your individual privacy will be maintained in all publication or presentations resulting from this study. In order to preserve the confidentiality of your responses, the data will be de-identified and only the principal investigator and faculty advisor will have access to the information.

If you agree to the above information and voluntarily consent to participate in this research, please follow the link below to the survey.

Thank you for your willingness to participate,

Michele Millard
Reminder e-mail to students:

Dear Student,

I understand how busy you are, but I would like to remind you of the invitation to participate in a research project for completion of my dissertation on the impact of psychological capital and psychological debt on desired outcomes for organizations. The research could potentially be used to help improve the educational and clinical experiences of medical students. Your participation will involve filling out a 113-item survey approved and reviewed by the University of Nebraska-Lincoln IRB. This survey should take you about 20 minutes to complete. The survey will ask for your name for mentor recruitment purposes only. Basic demographic information, including your year, birth date, gender, current rotation and intended specialty will also be gathered. Your mentor will also provide data regarding your attitudes and behaviors within your clinical rotations from their point of view. Basic demographic information, including your year, birth date, gender, current rotation and intended specialty will also be gathered. Any identifying information will be removed from the data. You and your mentor may choose to not respond to any question at your/their discretion. Your mentor will only complete a survey about your behaviors if you complete the survey. I am unaware of any risks with your participation. Your participation is purely voluntary and will not impact your participation or relationships within the Vital Signs Mentoring Program.

Your participation is voluntary and whether or not you choose to participate, you may contact me to receive a summary of the findings or contact me with any questions about this project at Michele Millard, M.S. - Office (402) 280-2928

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The UNL Institutional Review Board has approved this project. You may also contact the IRB at UNL at (402) 472-6965 with any questions.

Your individual privacy will be maintained in all publication or presentations resulting from this study. In order to preserve the confidentiality of your responses, the data will be de-identified and only the principal investigator and faculty advisor will have access to the information.

If you agree to the above information and voluntarily consent to participate in this research, please follow the link below to the survey.

Thank you for your willingness to participate,

Michele Millard
Appendix D: Informed Consent
Informed Consent Form: Students

Identification of Project: Social Net Worth: Finding the Balance Between Psychological Capital and Psychological Debt

Purpose of the Research: This research is being conducted as part of the requirement for a doctoral dissertation. You are invited to participate in a research study related to the concepts of psychological capital and psychological debt and the impact on organizational outcomes. Your participation in this study will contribute to the field’s understanding of these areas and its impact on organizational behavior and performance. You must be 19 years of age or older to participate in the study.

 Procedures: Participation in this study will be conducted online. If you consent, you will be asked to electronically complete a questionnaire. The questionnaire involves a simple format that will ask you to respond using the scale provided and will consist of questions that ask you about your attitudes and experiences within your clinical rotations. The questionnaire will require approximately 20 minutes of your time. You will also be asked to provide demographic information such as name, gender, ethnicity, state of residence, date of birth, current rotation, intended specialty and class year. Your name will be asked for the purpose of mentor recruitment. Any identifying information will then be removed from the data. You may choose to not respond to any question at your discretion.

Risks and/or Discomforts: There are no known risks or discomforts associated with this research.

Benefits: You may find the learning experience from this project enjoyable as you mentally process the personal and organizational oriented questions. Results of the research may help us learn more about creating positive experiences for students within clinical settings.

Confidentiality: Any information obtained during this study, which could identify subjects, will be kept strictly confidential to the immediate research team, which includes the principle investigator and one co-investigator and will be used only for mentor recruitment. The online data will be stored on a secure server and will be password protected. Your name will be collected with the survey for mentor recruitment purposes only. Any identifying information will then be removed from the survey results. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported as aggregated data.

Opportunity to ask questions: You may ask questions concerning this research and have those questions answered before agreeing to participate. Michele Millard’s office phone number is (402) 280-2928 and Dr. John Barbuto’s office phone number is (402) 472-8736. If you have any questions concerning your rights as a research subject that have not been answered by the investigators, you may contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

Freedom to Withdraw: Participation in this study is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln, your participation or relationships within the Vital Signs Mentoring Program or in any way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to participate in this study. By clicking the “I Consent” button you are certifying that you have decided to participate having read and understood the information presented. You should print a
copy of this form for your records. Your decision to either participate or decline to participate will not be made known to your supervisor or individuals in human resources.

Name and Phone number of investigator(s): Michele Millard, M.S. - Office (402) 280-2928
John E. Barbuto, Jr., Ph.D., Co-Investigator – Office (402) 472-8736
Informed Consent Form: Mentors

Identification of Project: Social Net Worth: Finding the Balance Between Psychological Capital and Psychological Debt

Purpose of the Research: This research is being conducted as part of the requirement for a doctoral dissertation. You are invited to participate in a research study related to the concepts of psychological capital and psychological debt and the impact on organizational outcomes. Your participation in this study will contribute to the field’s understanding of these areas and its impact on organizational behavior and performance. You must be 19 years of age or older to participate in the study.

Procedures: Participation in this study will be conducted online. If you consent, you will be asked to electronically complete a questionnaire. You will be asked to provide your name and the name of the student being evaluated. Once the data is matched, any identifying information will be removed. The questionnaire involves a simple format that will ask you to respond using the scale provided and will consist of questions evaluating your student on professional behaviors within their clinical setting. The questionnaire will require approximately 5 minutes of your time for each student you evaluate. You may choose to not respond to any question at your discretion.

Risks and/or Discomforts: There are no known risks or discomforts associated with this research.

Benefits: This research has the potential to learn more about the psychological strengths that medical students bring into their clinical rotations as well as factors (psychological debt) that may impede positive outcomes for both the student and the organization.

Confidentiality: Any information obtained during this study, which could identify subjects, will be kept strictly confidential to the immediate research team, which includes the principle investigator and one co-investigator. The online data will be stored on a secure server which is password protected. The information obtained in this study may be published in scientific journals or presented at scientific meetings but the data will be reported as aggregated data.

Opportunity to ask questions: You may ask questions concerning this research and have those questions answered before agreeing to participate. Michele Millard’s office phone number is (402) 280-2928 and Dr. John Barbuto’s office phone number is (402) 472-8736. If you have any questions concerning your rights as a research subject that have not been answered by the investigators, you may contact the University of Nebraska - Lincoln Institutional Review Board at (402) 472-6965.

Freedom to Withdraw: Participation in this study is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln, your participation or relationships within the mentoring program or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to participate in this study. By clicking the “I Consent” button you are certifying that you have decided to participate having read and understood the information presented. You should print a copy of this form for your records. Your decision to either participate or decline to participate will not be made known to your supervisor or individuals in human resources.

Name and Phone number of investigator(s): Michele Millard, M.S. - Office (402) 280-2928
John E. Barbuto, Jr., Ph.D., Co-Investigator – Office (402) 472-8736
Appendix E: Self-Assessment
PsyCap

Below are statements that describe how you may think about yourself right now. Use the following scales to indicate your level of agreement or disagreement with each statement.

0=Strongly Disagree, 1=Disagree, 2=Somewhat Disagree, 3=Somewhat Agree, 4=Agree, 5=Strongly Agree

1. I feel confident analyzing a long-term problem to find a solution. (E)
2. I feel confident in contributing to discussions about my patient’s case. (E)
3. If I should find myself in a jam in my rotations, I could think of many ways to work my way through it. (H)
4. Right now, I see myself as being pretty successful in my rotations. (H)
5. I can think of many ways to reach my current (work) educational and career goals. (H)
6. At this time, I am meeting my (work) professional development goals. (H)
7. I am beginning to work more independently with my work with patients. (R)
8. I usually take stressful things at work in stride. (R)
9. I can get through difficult times at work because I’ve experienced difficulty before. (R)
10. I always look on the bright side of things regarding my work in the hospital. (O)
11. I am optimistic about what will happen to me in the future as it pertains to my career. (O)
12. There are lots of ways around any problem. (H)
13. At the present time, I am energetically pursuing my work (career) goals. (H)
14. I feel confident analyzing a long-term problem to find a solution. (E)
15. When I have a setback at work, I shake it off and move on. (R)
16. I usually manage difficulties one way or another at work. (R)
17. I feel I can handle many things at a time at this job. (R)
18. When things are uncertain for me at work, I usually expect the best. (O)
19. I anticipate that things with my work will go well. (O)
20. Things typically work out for me in this work. (O)
21. I approach this job as if “every cloud has a silver lining”. (O)
22. I feel confident in representing my opinions and knowledge with my peers. (E)
23. I feel confident helping to set target/goals with my work with patients. (E)
24. I would feel confident contacting people others beyond my group to discuss problems. (E)

Emotional Labor

Below are statements describing your use of emotions within your work. Use the following scale to rank how often you’ve experienced each of the following statements.

0=Never, 1=Rarely, 2=Sometimes, 3=Often, 4=Always
1. Had to make an effort to actually feel the emotions that you needed to display to others (D)
2. Tried to actually experience the emotions that you must show (D)
3. Really tried to feel the emotions that you have to show and a part of your role as student physician (D)
4. Resisted expressing your true feelings (S)
5. Pretended to have emotions that you don’t really have (S)
6. Needed to hide your true feelings about a situation. (S)
7. Felt frustrated when you had to appease the emotions of others. (S)
8. Felt exhausted when you had to be nice to patients who were difficult
9. Made an effort to feel empathy toward a patient.

**Job Deviance**

Below are statements which describe your experience at work. Please rate using the following scale. 0=Never, 1=Almost Never, 2=Sometimes, 3=Often, 4=Always

0=Never, 1=Almost Never, 2=Sometimes, 3=Often, 4=Always

How often have you...
**Job Stress**  Below are statements which describe your “work” situation. Please use the following scale to describe your work.

0=Never, 1=Almost Never, 2=Sometimes, 3=Often, 4=Always

1. My job requires that I learn new things.
2. My job involves a lot of repetitive work.
3. My job requires me to be creative.
4. My job allows me to make a lot of decisions on my own.
5. My job requires a high level of skill.
6. On my job, I have little freedom to decide how to do my work.
7. I get to do a variety of different things on my job.
8. I have a lot of say about what happens on my job.
9. I have an opportunity to develop my own special skills.
10. My job requires working very fast.
11. My job requires working very hard.
12. I am not asked to do an excessive amount of work.
13. I have enough time to get the job done.
14. I am free from conflicting demands that others make.
15. My supervisor is concerned about the welfare of those under him/her.
16. My supervisor pays attention to what I am saying.
17. People I work with are competent in doing their jobs.
18. People I work with take personal interest in me.
19. People I work with are friendly.
20. People I work with are helpful in getting the job done.

**Job Insecurity**

Below are statements that describe your sense of security within your career path. Please use the following scale to rank your feelings.

0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

1. I feel secure in my career path.(A)
2. In my opinion, I feel like I will be successful on my career path. (C)
3. In my opinion, I will progress through my career path.(C)
4. I feel secure in my educational progress and my career path. (A)

**Stigmatic Injustice**

Below are statements which describe your “work” situation. Please use the following scale to rate your experience.

0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree
1. I am not happy to work because I feel that I don’t fit in
2. People in my organization do not treat me as an equal
3. Because I am different, people in my organization act differently around me
4. Policies to protect me from discrimination are not enforced in this organization.
5. Being in this organization erodes my self-esteem
6. My organization does not have policies that protect me from discrimination
7. Because others think negatively of me, I think negatively about myself.
8. I am not open to others in this organization about who I really am.
9. I am often bothered by the fact that I am different from others in my organization.
10. I worry that the way I behave will cause others to think less of me.
11. I do not feel comfortable being myself at work.

Organizational Commitment

Below are statements which describe your feelings toward your organization or school. Please use the following scale to rate your experience.

0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

1. I would be very happy to spend the rest of my career with this organization
2. I enjoy discussing my organization with people outside it
3. I really feel as if this organization’s problems are my own.
4. I think that I could easily become as attached to another organization as I am to this one.
5. I do not feel like ‘part of the family’ at my organization.
6. I do not feel emotionally attached to this organization
7. This organization has a great deal of personal meaning for me.
8. I do not feel a strong sense of belonging to my organization.
9. I am not afraid of what might happen if I quit my job without having another one lined up.
10. It would be very hard for me to leave my organization right now, even if I wanted to.
11. Too much in my life would be disrupted if I decided I wanted to leave my organization now.
12. It wouldn’t be too costly for me to leave my organization now.
13. Right now, staying with my organization is a matter of necessity as much as desire
14. I feel that I have too few options to consider leaving this organization.
15. One of the few serious consequences of leaving this organization would be the scarcity of available alternatives
16. One of the major reasons I continue to work for this organization is that leaving would required considerable personal sacrifice---another organization may not match the overall benefits I have here.
17. I think that people these days move from company to company too often.
18. I do not believe that a person must always be loyal to his or her organization.
19. Jumping from organization to organization does not seem at all unethical to me.
20. One of the major reasons I continue to work for this organization is that I believe that loyalty is important and therefore feel a sense of moral obligation to remain.
21. If I got another offer for a better job elsewhere I would not feel it was right to leave my organization.
22. I was taught to believe in the value of remaining loyal to one organization.
23. Things were better in the days when people stayed with one organization for most of their careers.
24. I do not think that wanting to be a company man or company woman is sensible.

**Subjective Well-Being**

Please rate the following statements which describe your experience at this point in your life. 
0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

1. In most ways, my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far, I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

**Professionalism**

Below are statements which describe your attitude towards professionalism. Please rate the statements with the following scale.
0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

1. I do not expect anything in return when I help someone.
2. I attend class/clerkship/work daily.
3. If I realize that I will be late, I contact the appropriate individual at the earliest possible time to inform them.
4. If I do not follow through with my responsibilities, I readily accept the consequences.
5. I want to exceed the expectations of others.
6. It is important to produce quality work.
7. I complete my assignments independently and without supervision.]I follow through with my responsibilities.
8. I am committed to helping others.
9. I would take a job where I felt I was needed and could make a difference even if it paid less than other positions.
10. It is wrong to cheat to achieve higher rewards (grades, money).
11. I would report a medication (medical) error even if no one else was aware of the mistake.
12. I am able to accept constructive criticism.
13. I treat all patients with the same respect, regardless of perceived social standing or ability to pay.
14. I address others using appropriate names and titles.
15. I am diplomatic when expressing ideas and opinions.
16. I accept decision of those in authority.
17. I am respectful to individuals who have different backgrounds.
Appendix F: Rater assessments
Organizational Citizenship Behavior:

Please rate your student on the following behaviors as observed by you in your interactions with him/her.

0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

Organizational Citizenship Behavior: (by Supervisor)

1. Attendance at work is above the norm.
2. Does not take extra breaks.
3. Obeys company (hospital) rules and regulations even when no one is watching.
4. Is one of my most conscientious students (employees).
5. Believes in giving an honest day’s work for an honest day’s pay?????
6. Consumes a lot of time complaining about trivial matters (R )
7. Always focuses on what’s wrong rather than the positive side ( R)
8. Tends to make “mountains out of molehills ( R)
9. Always finds fault with what the organization is doing (R )
10. Is the classic “squeaky wheel” that always needs greasing (R)
11. Attends functions that are not required, but help the company image.
12. Keep abreast of changes in the organization.
13. Reads and keeps up with organization announcements, memos, etc.
14. Takes steps to try to prevent problems with other workers (students).
15. Is mindful of how his/her behavior affects other people’s jobs.
16. Does not abuse the rights of others.
17. Tries to avoid creating problems for coworkers.
18. Considers the impact of his/her actions on coworkers.
19. Helps others who have been absent.
20. Helps others who have heavy workloads.
21. Helps orient new people even though it is not required.
22. Willingly helps others who have work related problems.
23. Is always ready to lend a helping hand to those around him/her.

Professionalism

Please rate your student on the following behaviors as observed by you in your interactions with him/her.

0=Strongly Disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly Agree

1. Show respect to patients, students, faculty, staff or other healthcare personnel
2. Advocates for the well-being of patients, students, colleagues, the community and/or the medical profession
3. Exceeds expectations in patient care, class, conferences, and/or rounds
4. Accurately and spontaneously report their own mistakes or uncertainties
5. Recognizes the professional behavior of others
6. Enjoys serving others.
7. Is cooperative when working with others.
8. Is willing to subordinate their interests to those of others.
9. Will ask for assistance if “over their heads”
10. Is likely to be placed in his/her residency program of choice.
11. Is likely to succeed in his/her chosen specialty.
Appendix F: Literature Map