Positive Psychology Coaching Protocols:

Creating Competitive Advantage for Leader Development

Douglas Wallace Gray

A Dissertation Submitted to the Faculty of

The Chicago School of Professional Psychology

In Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in Organizational Leadership

August 17, 2018

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Abstract

A gap exists between positive psychology coaching (PPC) theory and practice because PPC lacks rigorous measurement, evidence-based protocols and standard processes. This quasi-experimental study assessed the relationship between PPC protocols and performance or behavioral outcomes of leaders. The participants were global professional coaches (*n* = 220) who completed two sets of surveys after delivering 90 days of coaching, and completed approximately 60 minutes of digital training. The primary assessments were (a) the Psychological Capital Questionnaire (PCQ-12), (b) the Values in Action (VIA-72) questionnaire, and (c) the Outcome Measures Survey that included the Goal Attainment Satisfaction (GAS) score. The PPC protocols included compliance using assessments, defining meaningful coaching outcomes, compliance over time, and compliance with the AD-FIT^{TM} coaching protocol. Those participants with higher compliance to the AD-FIT^{TM} coaching protocol (*n* = 16) reported slightly higher goal attainment scores than the participants with lower compliance (*n* = 18). Open text box analysis was conducted to deepen understanding of the relationship between participation and leader outcomes. The top two performance outcomes (*n* =100 responses) were increased productivity and focus. The top two behavior outcomes (*n* =115 responses) were improved relationships and effectiveness. The theoretical, methodological and practical significance of this research indicate opportunities to create competitive advantage in leader development.

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Chapter 1: Nature of the Study

Background

Psychologists describe the world by focusing on individual and group behavior, with a three-pronged mission: (a) to heal mental illness, (b) to help healthy people become happier and more productive, and (c) to actualize human potential (Luthans, Youssef-Morgan & Avolio, 2015). Prior to 1998, 65% of the peer-reviewed, published research in psychology focused on explaining people's inability to adapt to negative external stimuli, including world wars and mental illness (Seligman & Csikszentmihalyi, 2000). That perspective changed in 1998 when leaders within the American Psychological Association (APA) called for a more balanced approach to research that focused on mental health (Seligman, 1999). The resulting body of scientific literature, related to optimal functioning, now clusters around five dimensions of positive emotions, engagement, relationships, meaning and accomplishments (Seligman, 2011). Positive Psychology has evolved into a branch of psychology with a focus on the scientific study of human strengths and virtues and the factors that contribute to a full and meaningful life (Lopez & Snyder, 2009; Peterson, 2006).

Positive Psychology (PP) is defined as the scientific pursuit of optimal human functioning and applied interventions that leverage human strengths (adapted from Seligman, 2002; Gilbert, 2006). Typical questions that positive psychologists strive to answer include "What makes life meaningful?" and "How can practitioners foster well-being and optimal functioning?" (Seligman, 2011). The roots of positive psychology extend throughout recorded history in the religion and art of countless cultures (Peterson & Seligman, 2004). In the United States, the unalienable right to "the pursuit of happiness" is defined in the Constitution. The philosophy of positive psychology dates to educators such as James (1899) who described habits that teachers needed to model in classrooms. The phrase “positive psychology” was coined by Maslow (1943) and is rooted in humanistic psychology. The theory of humanistic psychology assumes that people consciously strive for goals, and develop toward their full potential (Rogers, 1951). How people develop is described using the classification system called signature strengths (Peterson & Seligman, 2004) which describes cross-cultural virtues and character strengths, and provides a new vocabulary for practitioners in consulting, therapy or professional coaching.

In today’s increasingly complex work organizations, where collaborative decision-making requires trusting relationships among employees, the need to predict work outcomes is an essential competitive advantage (Luthans et al., 2015; Luthans, Yousseff-Morgan & Avolio, 2007). Traditional resource-based views of individual and organizational capital describe limited commodities such as human capital, social capital, or intellectual capital (Barney, 1991). In contrast, psychological capital (PsyCap) has been defined as an unlimited resource for “who we are developing into” (Luthans et al., 2015). The construct of PsyCap is defined as a dynamic, developmental state, and a higher-order construct comprised of four variables: hope, efficacy, resilience and optimism (Luthans et al., 2015). The foundational perspective for PsyCap theory is called positive organizational behavior (POB) defined as the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace (Luthans, 2002).

A parallel and related theory is called positive organizational scholarship (POS; Cameron, 2013; and personal communication, July 15, 2017). The focus of POS research is the study of positive phenomena at organizational levels. Four aspects of POS research include (a) adopt a unique lens (e.g., problems are not ignored but interpreted as opportunities to generate growth), (b) focus on extraordinary outcomes, (c) focus on growth and positive outcomes, and (d) focus on the conditions for optimal flourishing (Cameron & Spreitzer, 2012). One example of an intervention that applied POS included business outcomes from the merger of two organizations that led to a $20 million profit in the first 12 months, and the new company achieved two times its expected business outcomes (Kelly & Cameron, 2017).

Positive psychology focuses on interventions that increase well-being and optimal flourishing. For instance, Seligman (2011) stated, “The purpose of life is to discover your gifts and the meaning of life is to give them away.” Well-being research is emerging but limited, particularly research that focuses on behavioral outcomes, based on evidence-based protocols applied by practitioners (Foster & Auerbach, 2015; Grant, 2014; Grant, Cavanaugh & Parker, 2010). There is a significant gap between what academics know, and what practitioners do.

Problem Statement

A gap exists between theory and practice because positive psychology lacks rigorous measurement, evidence-based protocols and standard processes. Many professional consultants or coaches do not adhere to evidence-based protocols (Foster & Auerbach, 2015; MacKie, 2014). In addition, the outcomes of their efforts are not always measured, and are not always associated with a theoretical framework (Frisch, 2013; Grant, 2014; Grant, Cavanaugh & Parker, 2010; Welch, Grossaint, Reid & Walker, 2014). Other professions, such as medicine, law, accounting and therapy, adhere to evidence-based protocols and standards. For instance, recent advances in technology, such as tele-medicine, have enabled healthcare practitioners to provide quality evidence-based care to geographically dispersed clients (Topol, 2015; Wachter, 2015). Related examples of new technology in leader development include digital training interventions (e.g., online courses, webinars, micro learning programs) that provide cost effectiveness and consistent delivery of standardized content (Dodgson, Gann & Phillips, 2013; Parks, 2014). However, compliance to protocols is not prevalent in coaching and the result is a lack of professionalism (Biswas-Deiner & Dean, 2007; Grant, 2014; Proctor, 2017).

Compliance to those protocols can be measured using a standardized protocol manual, behavioral outcomes, and self-assessments by the coach of compliance to those protocols (MacKie, 2014). In other areas of psychology, evidence-based protocols yield efficient and effective outcomes. Without broad adoption of evidence-based protocols by positive psychology coaches, the influence of positive psychology will be less than optimal and best practices will not be codified for re-use. The main problem is that many coaches do not adhere to evidence-based protocols, because positive psychology lacks rigorous measurement and standard processes.

Positive psychology coaching (PPC) is also a new subject of research, with no established coaching methodology or protocols. Therefore, it is unreasonable to expect methodological consistency across practitioners (DeHaan & Duckworth, 2013). As positive psychology evolves from a research-based science to an applied science, inconsistency among practitioners has led to confusion in the marketplace (Biswas-Deiner, 2010). For instance, if certification or credentialing were to develop for positive psychology coaching, then there is a need to define how academic training or certificate coaching programs would contribute to the emerging profession (Biswas-Deiner, 2010). If assessments were to be adopted by practitioners calling themselves “positive psychology coaches,” then assessment methodology protocols would need to be developed (Biswas-Deiner, 2010). If practitioners were to be evaluated or endorsed, then ongoing knowledge updates from journals or training would also need to be developed (Biswas-

Deiner, 2010). Currently, there are no defined protocols for professional development of positive psychology coaches or positive psychology consultants.

However, best practices from leading PPC practitioners can be replicated. One qualitative case study identified 6 expert strengths-based leadership development coaches and identified four themes in their practices (Welch et al., 2014). Those four themes include (a) strengths development is intrinsically motivating and energizing for leaders, who may ask, “What activities do I find energizing?” (b) strengths develop through relationships, such as accountability triangles, that reinforce a leader’s ideal view of self with what others see as the leader’s best potential self, (c) strengths work does not ignore a leader’s blind spots or shadow side, especially for competencies that are critical for job performance, and (d) the process of helping leaders to develop reflects the coach’s development (Welch et al., 2014). Those four themes may provide a useful framework for any positive psychology protocol program.

Coaches and psychologists also lack research on the selection of positive psychology interventions (PPI) for an individual client (Linley, 2017; Silberman, 2007). The selection of positive psychology interventions can be described by person-activity fit (Lyubormisky, Sheldon & Schkade, 2005), goal-person fit (Sheldon & Elliot, 1999), trait-person fit or self-selection fit. Self-selection of positive psychology interventions (PPI) can be described by four approaches: (a) the test-drive approach (i.e. people try a PPI until they find one that works), (b) the trait-based approach (i.e. people assess personality traits then select a PPI), (c) the coach-selection approach (i.e. coach assesses client needs and recommends a PPI), or (d) the self-selection approach (i.e. person selects a PPI based on interests; Silberman, 2007). One study of 72 matched undergraduates found no significant difference between self-selected PPI activities, suggesting that self-selection for that population was not significant (Silberman, 2007). That finding suggests a need for more research on combinations of the test-drive, trait-based or coach-selection approaches to positive psychology interventions.

Professional coaches also lack research on how theories of organizational leadership can be translated into identifiable behaviors or studied over time. One example of how optimistic managers influence productivity and engagement was conducted at a technology organization (Arakawa & Greenberg, 2007). Positive leadership was defined by three specific behaviors (a) orienting around strengths, (b) being positive during stress, and (c) actively recognizing and praising worker behavior (Arakawa & Greenberg, 2007). In a cross-sectional study with 17 managers and 86 employees, managers with higher optimism demonstrated more positive leadership behaviors, and predicted higher job performance (Arakawa & Greenberg, 2007). That study suggests a clear ROI for professional coaches to develop behavioral skills in positive leadership (Kauffman & Linley, 2007). In summary, most professional coaches may use some validated assessments and may discuss outcome measures, but there are no standardized protocols for how professional coaches currently provide positive psychology coaching services.

Purpose of the Study

The purpose of this quasi-experimental study was to assess the influence of a positive psychology coaching (PPC) program, applied by global professional coaches, on the perceived behavioral outcomes of leaders. The tenets and evidence-based practices of positive psychology coaching were measured using surveys at Time 1 (T1) and three months later at Time 2 (T2).

The main independent and dependent (outcome) variables are listed below in Table 1. There are five independent variables: compliance to a digital intervention program in Positive Psychology Coaching (PPC), and four demographic variables (age, gender, location, years in the profession) of global professional coaches. Three primary instruments were used to gather dependent measures of performance: (a) the Psychological Capital Questionnaire (PCQ-12; Luthans et al., 2015), (b) the Values in Action (VIA-72) questionnaire (Peterson & Seligman, 2004), and (c) the Outcome Measures Survey that included the Goal Attainment Satisfaction (GAS) score. To deepen understanding of the study, open text box subquestions about effectiveness, performance, behavior, goal attainment and compliance were included in the Outcome Measures Survey at T2.

Table 1: Description of Independent and Dependent Variables

Variable	Instrument	Scoring
IVs: age, gender, location, years in the profession	Self-report, groups A and B	Descriptive, nominal
IV: compliance to a digital intervention program in Positive Psychology Coaching (PPC)	Self-report, group A only	Percentage, nominal
DV: behavioral outcomes	Psychological Capital Questionnaire (PCQ-12)	Interval, changes T1 – T2 (3 months later)
DV: behavioral outcomes	Outcome Measures Survey including Goal Attainment Satisfaction (GAS) scores	Open responses by coaches

The group A population was encouraged to adopt the Positive Psychology Coach (PPC) program protocol using the AD-FIT^{TM} model. The AD-FIT^{TM} model is an evidence-based approach to positive psychology coaching or consulting based upon (a) awareness of strengths and growth mindset, (b) defining a meaningful goal, (c) focus on the client's agenda, (d) interventions, (e) takeaways, and (f) percentage of compliance to this model. The group B population was not encouraged to adopt the Positive Psychology Coach (PPC) program protocol and was not introduced to the AD-FIT^{TM} model. To strengthen the analysis between groups, the group B participants received a digital coach training program that reviewed common coaching practices. Each group of participants received access to digital training that was designed to be about one hour in length. The dependent variables used to track behavioral outcomes were compared in both group A and group B. The specific purpose of this quasi-experimental study was to assess the influence of a positive psychology coaching (PPC) program, applied by global professional coaches, on the perceived behavioral outcomes of leaders. Specific definitions of key terms are provided below in chapter 1.

Research Questions and Hypotheses

To evaluate the relationship between positive psychology coaching (PPC) and leader outcomes, the following research questions were presented, together with the null hypotheses (H_0) and alternative hypothesis (H_a) associated with each research question.

Q 1: What is the relationship, if any, between participation in professional coaching on behavioral or performance outcomes of leaders?

HO1: There is no significant relationship between participation in professional coaching on behavioral or performance outcomes of leaders.

H1: There is a significant relationship between participation in professional coaching on behavioral or performance outcomes of leaders.

Q 2: What is the relationship, if any, between Positive Psychology Coaching (PPC) protocols on the behavioral or performance outcomes of leaders?

H02: There is no significant relationship between Positive Psychology Coaching (PPC) protocols on the behavioral or performance outcomes of leaders.

H2: Participation in at least 60 minutes of digital training on positive psychology coaching (PPC) protocols using the AD-FIT^{TM} model, for coaches in group A, will have a more significant positive impact on the behavioral and performance outcomes of leaders, than for those leaders in group B.

Q 3: What is the relationship between compliance to positive psychology coaching (PPC) protocols on the behavioral or performance outcomes of leaders?

H03: There is no significant relationship between compliance to positive psychology coaching (PPC) protocols on the behavioral or performance outcomes of leaders.

H3a: Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher scores on the Goal Attainment Scales (GAS) and more outcome benefits for their coachees than those with lower levels of compliance in Group A, or those in group B.

H3b: Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher Psychological Capital (PsyCap) scores in hope, efficacy, resilience and optimism between T1 and T2 than those with lower levels of compliance in Group A, or those in group B.

The overall question guiding this study was, "What is the relationship between positive psychology coaching (PPC) protocols, applied by professional coaches, on performance or behavioral outcomes of leaders?" This study was further grounded by three open text box subquestions:

1. What specific benefits (if any) has the coaching had on your coachee's performance outcomes (e.g., Key Performance Indicators, business goals)?

2. What specific benefits (if any) has the coaching had on your coachee's behavioral outcomes (e.g., frequency, attitude, new actions)?

3. What are some examples of the behavioral outcomes your coachee has attained in the last 3 months?

This research was also grounded by the Goal Attainment Scale (GAS) question, "How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?" Details on the research design and methodology are described in chapter 3 of this paper.

Theoretical Framework

There is considerable theory that contributes to the need for research on the relationship of a positive psychology coaching intervention and improved leader outcomes. Prior to 1998, most of the peer-reviewed research in psychology adopted the medical model to diagnose and treat "what is wrong," particularly, research on mental illness and how people adapted to negative external stimuli (Seligman & Czikszentmihalyi, 2000). A paradigm shift in research occurred in 1998, when leaders of the American Psychological Association, led by then-president Martin Seligman, called for a more balanced approach to research, that focused on mental health (Seligman, 1999). That broad focus on "what is right" led to extensive research in individual and organizational behavior, mental health, and the following theoretical constructs related to positive psychology (Luthans et al., 2015). As described in Figure 1, four theoretical constructs inform this research.

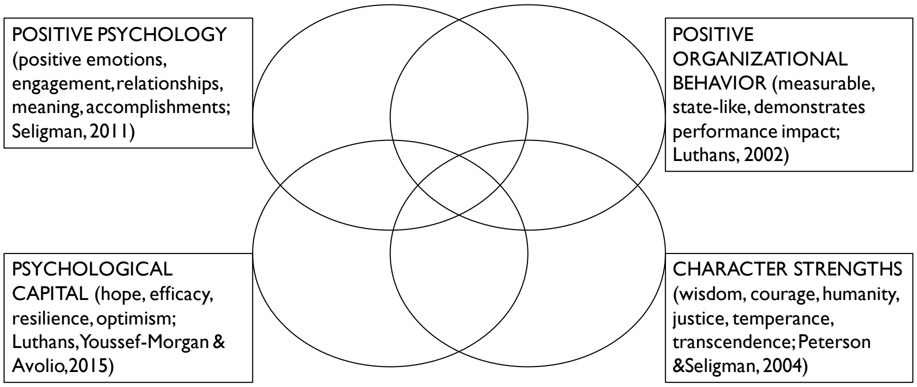
POSITIVE PSYCHOLOGY (positive emotions, engagement, relationships, meaning, accomplishments; Seligman, 2011)
POSITIVE ORGANIZATIONAL BEHAVIOR (measurable, state-like, demonstrates performance impact; Luthans, 2002)
PSYCHOLOGICAL CAPITAL (hope, efficacy, resilience, optimism; Luthans, Youssef-Morgan & Avolio, 2015)
CHARACTER STRENGTHS (wisdom, courage, humanity, justice, temperance, transcendence; Peterson &Seligman, 2004)

Figure 1: Theoretical Constructs in this Research Study

The first construct, Positive Psychology (PP), is defined as the scientific pursuit of optimal human functioning and applied interventions that leverage human strengths (adapted from Seligman, 2002; Gilbert, 2006). One of the founders of positive psychology, Martin Seligman, has a representative story. After studying cognitive behavioral therapy, learned helplessness, and depression, Seligman began to research learned optimism and flourishing behaviors (Seligman, M.E.P., in personal communication, July 14, 2017). That research exploring “What is right” in human behavior has developed into a body of research, called positive psychology, on how to live an optimal life, defined by flourishing or thriving at an individual or organizational level (Seligman, 2011). Dozens of researchers in positive psychology have defined five clusters of science, the PERMA conceptual model, which reflect these five dimensions: (a) Positive emotions, (b) Engagement, (c) Relationships, (d) Meaning, and (e) Accomplishments (Seligman, 2011). The PERMA model is now frequently used by positive psychology coaches to determine a coachee's focus area, select possible interventions, or define a leader outcome.

The second construct, Positive Organizational Behavior (POB) focuses on the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today's workplace (Luthans, 2002). The criteria for a psychological resource to be included in the POB framework must be evidence-based (Luthans et al., 2015). Specifically, resources must be (a) positively oriented, (b) measurable, (c) state-like or open to development, and (d) demonstrate performance impact (Luthans et al., 2015).

The third construct, Psychological Capital (PsyCap) theory is an emerging theoretical framework that describes the dynamic, positive capacities of individuals and groups (Luthans et al., 2015). PsyCap is defined as an individual or group psychological state of development that is characterized by (a) self-efficacy, (b) hope, (c) optimism, and (d) resilience (Luthans et al., 2015.) These four variables have a second-order effect, with higher significance than any one of the four variables when measured alone, that is described with the acronym HERO (Luthans et al., 2015). Interventions designed to measure the significance of PsyCap have been applied in domains such as interpersonal relationships, individual health, work outcomes and overall well-being (Luthans, Yousseff, Sweetman & Harms, 2013). A newly validated construct, Leader Development PsyCap, mediates the relationship between leaders and learning climate, organizational support, social support, and workload on leader development behaviors (Pitichat, Reichard, Kea-Edwards, Middleton & Norman, 2017). The construct of leader development PsyCap has not yet been applied by researchers using professional coaches, and the first author

(Thiraput Pitichat, in personal communication on August 22, 2017) has encouraged this researcher to conduct such research.

The fourth construct, Character Strengths, focuses on the virtues that enable individuals or groups to develop their potential (Peterson, 2006). Character strengths that are trait-like, measurable, universally adopted across cultures, and morally valued have been described by Peterson & Seligman (2004) using a classification of six core virtues as value domains (wisdom, courage, humanity, justice, temperance, transcendence) and 24 character strengths. The result is a glossary of character strengths that can be used as a reliable assessment or a descriptive tool for practitioners in positive psychology (Peterson, 2006; Peterson & Park, 2009). Over 7 million people have assessed their character strengths using the Values in Action (VIA-72) questionnaire and countless practitioners are applying the results in interventions (Niemiec, 2017). The construct of character strengths is frequently used by positive psychology coaches to determine a coachee's focus area or a possible intervention.

Scope of the Study

This study advances understanding of the psychological mechanisms of positive psychology coaching and leader outcomes. The coach training industry is estimated at 53,500 global coach practitioners and over $7B USD in annual revenue, with 115 accredited coach training programs (ICF, 2016). A sample population of 5,570 professional coaches from two global organizations was invited to participate in this study.

Respondents were asked to self-report their level of experience using positive psychology, and those responses were used to sort participants into group A or group B. Group A was introduced to positive psychology coaching protocols, including the AD-FIT^{TM} model, and encouraged to apply that protocol in their coaching intervention with leaders from time 1

(T1) to time 2 (T2), 3 months later. Group B was not introduced to positive psychology coaching protocols or the AD-FIT^{TM} model, but was provided with access to a digital training review of standard coaching approaches, and encouraged to apply that protocol in their coaching. The AD-FIT^{TM} Model is an approach to positive psychology coaching or consulting based upon (a) awareness of strengths and growth mindset, (b) defining a meaningful goal, (c) focus on the client's agenda, (d) interventions, (e) takeaways, and (f) percentage of compliance to this model. Performance and behavioral outcomes were assessed from participants in both group A and group B at T2 using the Outcome Measures Survey.

An assumption of this study was that the study population of professional coaches would be willing participants who were (a) aware of and sufficiently interested in positive psychology, (b) willing to volunteer and able to learn via digital training, (c) willing to incorporate assessments into their confidential coaching process, (d) willing to incorporate coaching protocols based on positive psychology into their coaching process, and (e) able to self-assess their compliance level and any benefits to their coachee. Another assumption was that each participant would provide honest responses to the items in the questionnaire surveys. Another assumption was that the selected instruments were valid and reliable measures of the identified variables. Another assumption was that offering the instruments electronically was a valid method for obtaining reliable data, and would enable participants to complete their participation in a shorter time frame, and at their convenience from any location or time of day. Finally, this study assumed that all participants had the ability to understand the English language, the digital training, and complete the assessments and questionnaires.

The design of this research replicated similar research designs by Grant (2014) and MacKie (2014) that used a quasi-experimental study over 3 months. There are very few studies of professional coaches, as described in chapter 2. Data collection in this study was limited to coaches, not coaches, therefore specific leader outcomes were not directly assessed in this research. The quasi-experimental design was chosen because it maintained the highest possible rigor in a real-world environment that would not tolerate a fully randomized design.

The challenges of conducting research using globally distributed professional coaches were significant. Collecting a representative sample from the global estimated population of 53,500 coaches (ICF, 2016) was a challenge. One assumption of this study was that the professional coaches targeted as research participants would be willing to participate. Over 5,570 professional coaches from two global organizations, plus the researcher's contacts, were invited to participate in this research. The challenge of developing a sample population that reflects this overall population was a limitation of this study, and generalizability cannot be assumed.

Limitations

The study was nonexperimental and correlational in design. Those correlational qualities are descriptive and are not intended to produce cause and effect outcomes. Outcomes measures were compared across the two coaching protocols: positive psychology coaching for group A and non-positive psychology coaching for group B. This quasi-experimental after-only approach (Cook & Campbell, 1979) was selected to explore a potential relationship between positive psychology coaching and leader outcomes. Uncontrolled factors that may limit the ability to draw causal conclusions include environmental or social variables in other organizations or in other industries, variable organizational cultures, the global diversity of participants, variability in coaching expertise, frequency of sessions within the study period, and the confidential nature of the coaching work. While these external threats were significant, the study increased the possibility of generalizability and practical impact by leveraging large, global samples of experienced professional coaches who were currently working with a coachee and who were voluntarily willing to participate in research. Regardless, the possibility of a sampling bias based on prior expertise with positive psychology, or other confounding variables, was another limitation of this study.

Definition of Key Terms

The following key terms are referenced throughout this paper.

Coaching. A collaborative relationship or process designed for coachees to attain meaningful performance or business outcomes (Green & Spence, 2014).

Evidence-based coaching. The use of best current knowledge integrated with practitioner expertise when making decisions about how to deliver coaching (Green & Spence, 2014).

Positivity. An integrated system of antecedents, processes, practices and outcomes that can be readily identified and agreed upon by diverse observers and stakeholders as uniquely surpassing standards of adequate functioning and adding sustainable value to both the individual and the context (Yousseff-Morgan & Luthans, 2013).

Positive Organizational Behavior (POB). The study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today's workplace (Luthans, 2002).

Positive Organizational Scholarship (POS). The study of positive phenomena at organizational levels. Four aspects of POS research include (1) adopt a unique lens (e.g., problems are not ignored but interpreted as opportunities to generate growth), (2) focus on extraordinary outcomes, (3) focus on growth and positive outcomes, (4) focus on the conditions for optimal flourishing (Cameron & Spreitzer, 2012; Cameron, 2013).

Positive Psychology (PP). The scientific pursuit of optimal human functioning and applied interventions that leverage human strengths (adapted from Seligman, 2002; Gilbert, 2006).

Positive Psychology Coaching (PPC). The practice of coaching combined with a focus on what is right, positive emotions, and signature strengths of a coachee (Biswas-Diener, 2010).

Positive Psychology Consulting. The application of positive psychology to improve a client's condition.

Positive psychology interventions (PPIs). Intentional activities that aim to increase well-being through the cultivation of positive feelings, cognitions and behaviors (Green & Spence, 2014).

Psychological capital (PsyCap). A dynamic, developmental state, and a higher-order construct comprised of four measurable variables: hope, efficacy, resilience, optimism (the HERO-within acronym, Luthans et al., 2015.)

The AD-FIT^{TM} Model. An evidence-based approach to positive psychology coaching or consulting based upon (a) awareness of strengths and growth mindset, (b) defining a meaningful goal, (c) focus on the client's agenda, (d) interventions, (e) takeaways, and (f) percentage of compliance to this model.

Significance of the Study

Leaders in business, education or families may be keen to apply new scientific findings to create a competitive advantage. In business, for instance, the return on investment of 90-minute digital interventions on PsyCap activities has been estimated at 270% (Luthans et al., 2015.) Research in positive leadership variables (e.g., climate, relationships, communication and meaning) have produced exceptional results in individuals and organizations (Cameron, 2013.)

Research in schools is redefining what it means to be successful members of society, or to make moral decisions (Dweck, 2006; Seligman, 2011.) The field of positive psychology is emerging and very few outcome-based research studies have been published.

One reason for exploring the relationship of positive psychology coaching and leader outcomes is to decrease the gap between what researchers know and what practitioners do. For instance, researchers have found that the word "capital" typically connotes resources that appreciate or depreciate. Financial capital can be measured by "what you have" (e.g., net worth, cash flow, assets on hand). Human capital can be measured by "what you know" (e.g., experience, knowledge, skills, abilities). Social capital can be measured by "whom you know" (e.g., contacts, relationships, networks). All three of these forms of capital appreciate over time, or a career, and then they depreciate. Consequently, financial, human, and social capital are called resource-based views of capital (Luthans et al., 2015).

In contrast, psychological capital (PsyCap) can be defined as "who you are developing into" and is measured by hope, efficacy, resilience, optimism (the HERO-within acronym, Luthans et al., 2015.) Researchers now discuss the unlimited, developmental potential state of "the HERO within" individuals and groups. Recent research found that PsyCap can be developed or learned, and those with higher PsyCap scores report higher sales, higher job satisfaction, higher engagement scores, and lower attrition (Friend, Johnson, Luthans & Sohi, 2016). In practice, the word "capital" has been adopted by organizational accountants who now quantify capital investments into leader development, talent development or executive coaching initiatives (Leana & Rousseau, 2000). In contrast, the word "resources" has also been used by practitioners to describe investments in leader development or talent development because it is more comprehensive than the word "capital" (Seligman, M.E.P., in personal communication, July 18, 2016). If coaches or leaders are able to increase PsyCap, then they may have a competitive advantage in business, education or families.

A second example of the gap between research and practice is resiliency. Resiliency can be broadly defined as “flexibility in response to changing demands and the ability to bounce back from negative emotional experiences” (Bartone, 2007). Resiliency is a dynamic variable being taught to over 250,000 U.S. Army soldiers since 2009, and thousands of graduate students (Seligman, 2011; and in personal communication, July 18, 2016). Low engagement and burnout characterize 40-80% of leaders in healthcare and business (Harter, Schmidt, Agrawal & Plowman, 2013); the costs of low engagement scores are vast. If resiliency can be developed for more leaders (Reivich & Shatte, 2002), then the cost savings and impact on leaders and their followers should provide a significant competitive advantage for leaders in business, education or families.

Practitioners need evidence-based tools. Positive psychology interventions (PPIs) are defined as intentional activities that aim to increase well-being through the cultivation of positive feelings, cognitions and behaviors (Green & Spence, 2014). The following three examples of evidence-based PPIs illustrate tools that practitioners may provide immediately. When people use their signature strengths in a new and different way each day, and write down three good things that happen each day, they describe significant increases in happiness when assessed at a six-month follow up (Seligman, Steen, Park and Peterson, 2005). That finding suggests that professional coaches can accelerate the development of signature strengths for their clients. Those professional coaches that adopt outcome-based coaching protocols may have a competitive advantage over other “professional coaches” that do not adopt coaching protocols.

Second, when people self-select the positive psychology intervention (PPI) from several options that may be appropriate for them, they are less effective than when a PPI is randomly assigned (Silberman, 2007). That finding suggests that informed professional coaches can increase efficacy by making recommendations from a strengths-focus protocol that is customized for their clients. Those professional coaches that recommend outcome-based coaching protocols may have a competitive advantage over other “professional coaches” that do not adopt evidence-based coaching protocols.

Third, when optimistic managers operate from a strengths-focus rather than a deficit-focus, they achieve better business results (Arakawa & Greenberg, 2007). These three findings suggest opportunities for outcome-based leaders or professional coaches to develop optimism with leaders. Specifically, coaches who adhere to outcome-based positive psychology protocols may be more effective, cost efficient facilitators of leader development than coaches who do not adhere to such protocols. Those professional coaches may have a competitive advantage over other “professional coaches” that do not adopt coaching protocols.

Positive psychology is poised to provide unprecedented value to leaders because technology facilitates consistent digital delivery, global reach and individual customization (Seligman, 2011). Just as digital delivery of individualized medicine is providing value to patients and physicians (Topol, 2015; Wachter, 2015), individualized leader development programs may be able to provide immense value and competitive advantage to leaders.

One vision of future applied positive psychology interventions includes a protocol framework of recommendations for practitioners. That protocol framework can be based on strengths-based individualized or group assessments, effective digital and direct training, evidence-based development interventions, designed to accelerate leader development, or meaningful behavioral outcomes. One goal of this research was to explore the relationship of protocols, applied by professional coaches, so that other practitioners (coaches, consultants, managers and leaders) may be able to (1) develop themselves, (2) attract, develop and retain desired leaders in their organizations, or (3) provide a competitive advantage.

Reflections on the Research Process

My interest in this research emerged when three factors collided. One, since 1997, when I started my company and self-declared that I was an executive coach, I have experienced an increasingly confused, crowded marketplace.   I have heard stories of unethical practices from "professional coaches." Then, in 2016, three people asked the same question on the same day. They were each buying agents from global F500 organizations. They asked, "What is the actual ROI of any coaching investment?" They needed milestones and measures, based on a theoretical construct. They needed outcome-based protocols to sell the investment to their managers and colleagues. I realized that the available survey data was not adequate for these buying agents to champion or sell organizational coaching services. Organizational clients needed protocols.

Two, at the same time in 2016, a F500 healthcare client said, "We use protocols to mitigate risk and drive quality measures in healthcare. You have not described your protocols. What are your coaching protocols?" I stuttered, then gathered some milestones and best practices and labelled them "protocols." Protocols in healthcare can save lives or reduce waste. Protocols in professional coaching may contribute to leader outcomes slightly, but the consequences of applying a PPC protocol are not likely to be life threatening. I have adopted the word "protocols" because I realized that protocols would likely contribute to the professionalism of coaching. In short, the coaching profession needed protocols.

Three, after coaching hundreds of leaders in multiple sectors, they repeatedly asked, “What really works?” Individual leaders wanted an outcome-based process to achieve objectives and key results with efficiency. They wanted assessments, a list of outcomes, and evidence-based interventions that would accelerate leader development or provide a competitive advantage. The need for research to explore the potential relationship of coaching protocols on leader outcomes became even more clear. Individual leaders needed protocols. When those three factors collided, I began this formal research.

Summary

Recent questions in psychology such as “How can practitioners foster well-being and optimal functioning?” currently lack answers (Seligman, 2011; and in personal communication, July 15, 2017). Recent findings in positive psychology practices demonstrate that the PERMA theoretical model has descriptive utility for practitioners. Evidence-based protocols have been established by practitioners in related disciplines, such as medicine, mental health and cognitive behavioral therapy. The technology providing digital training has demonstrated high quality and efficient delivery in related disciplines, such as tele-medicine and leader development. The relationship of positive psychology coaching protocols, applied by professional practitioners such as consultants or coaches, needed to be studied.

Chapter 2 reviews the salient positive psychology literature in detail.

Chapter 2: Literature Review

Introduction

Drucker (1994) famously stated “the basic economic resource is no longer capital… nor labor… it is and will be knowledge.” One challenge for this discussion on positive psychology coaching (PPC) is to apply scientific knowledge to practice, to decrease the gap between what academics know and what practitioners need (Linley & Kauffman, 2007). The goal of this literature review is to bridge that gap (Creswell, 2014) and increase understanding of positive psychology coaching protocols. The design of this literature review includes discussions on main topics such as positive psychology, theoretical constructs, applications, professional coaching, coach training, assessments, interventions, digital interventions and the need for research on positive psychology coaching protocols.

To locate relevant material, a review of the literature in positive psychology, coaching, consulting and interventions was undertaken. Materials were identified using the electronic databases available from the Chicago School of Professional Psychology, including ProQuest, EBSCO host, Psych ARTICLES and Psych INFO. The search strategy key words included “positive psychology”, “consulting”, “professional coaching”, “coach training”, “assessments”, “interventions”, “digital interventions”, and “protocols”. The search was limited to English language, peer-reviewed studies published in 2007-2017. Only a few classical studies related to the areas of positive psychology and consulting before 2007 were included. The inclusion criteria for this literature review were (a) primary, peer-reviewed research studies, (b) related systematic reviews and meta-analysis, (c) conceptual or theoretical papers relevant to the objectives of this literature review, and (d) studies critical to this research that explore the relationship between positive psychology coaching, consulting, and outcomes for business leaders. Material was excluded if relevant to the search objectives but lacking in conceptual breadth or operational details.

Positive Psychology (PP)

The field of psychology has been described as a subject with a long past, but only a short history (Boring, 1950). That long past of psychology reflects philosophers, religious leaders and artists throughout 5,000 years of recorded history, who have explored timeless questions such as “What makes life meaningful?” or “How can I provide a better life for my children?” (Peterson, 2006). The short history of psychology as a formal discipline is only about 100 years, and the short history of positive psychology is only about 20 years old. Positive psychology is currently defined as the scientific study of well-being and optimal human functioning (Seligman, 2011).

The phrase “positive psychology” was coined by Maslow (1943) and is rooted in humanistic psychology. However, the definition of PP is evolving and its scope is not clearly defined. Hefferon & Boniwell (2011) suggest that positive psychology may be (a) a subtopic or separate discipline of psychology, or (b) it may encompass the entire field of psychology. The advent of positive psychology research is attributed to Martin E.P. Seligman’s 1998 presidential address to the American Psychological Association (Seligman, 1999). Seligman called for psychologists to redress an imbalance on three areas of research. The primary focus of research, curing mental illness, anxiety and depression, dominated 65% of the research studies in 1998 (Seligman, 2011). A more balanced approach for psychology required additional research in two related areas: helping people to lead more productive and fulfilling lives, and identifying and nurturing high talent (Seligman, 1999; Linley & Kauffman, 2007).

Also, positive psychology may be defined at multiple levels, such as “The science of human strengths and flourishing that aims to understand what is good in us (individually), in life (in organizations and activities) and what works for us (pragmatic worldview) to make life worth living (Hefferon & Boniwell, 2011). Positive psychology may be defined as nothing more than the scientific study of ordinary human strengths and virtues of the average person (Sheldon & King, 2001). Recent applications of PP range from cultivating a positive mindset (Achor, 2010) to thinking patterns (Frederickson, 2009) to CEO behavior (Kiel, 2015). These evolving definitions of positive psychology reflect changing views of mental health and well-being, applications using new technology, and applications to new sample populations.

A related example of evolving definitions in psychology is the example of definitions for "mental health." The World Health Organization (WHO) defines health as "a state of well-being… an integral and essential component of health" (WHO, 1946). The constitution of the WHO now states that health is a complete physical, mental and social well-being, and not merely the absence of disease or infirmity (WHO, 1946). Mental health is no longer defined as the absence of mental illness. Mental illness and mental health are now defined using two different continua (Seligman, 2011). Definitions of positive psychology that focus on the strengths of an individual or a leader, rather than anxieties, are another example of a shift away from mental illness toward mental health (Lloyd & Atella, 2000; Mitchell, Vella-Broderick & Klein, 2017).

In a similar way, earlier definitions of positive psychology focused on theoretical possibilities, and more recent definitions of PP focus on applied evidence-based interventions, sometimes called Positive Psychology 2.0 (Wong, 2011). Newer definitions of positive psychology expand beyond a competency-based model of employee organizational fit, to a predictive model of employee performance and future mastery, reflecting the rapid pace and organizational complexity of changes, new technology, and provide competitive advantages to both individuals and organizations (Biswas-Deiner & Dean, 2007; Luthans et al., 2015).

For this study, positive psychology is defined as a focus on the scientific pursuit of optimal human functioning and applied interventions that leverage human strengths (adapted from Seligman, 2002; Gilbert, 2006).

Theoretical Constructs

There are several theories that contribute to this study. The theory of humanistic psychology focuses on the needs and values of humans, who choose to develop their potential (Maslow, 1943; Rogers 1951). The theory of existentialism focuses on the subjective experience of individuals who choose to describe their authentic reality (Peterson, 2006). The theory of phenomenology focuses on the intentional experiences of people who choose to develop meaning from their experiences (Peterson, 2006). The broad focus on “What is right” represents a paradigm shift since 1998 in theory and research in positive psychology (Luthans et al., 2015).

The four main theoretical constructs adopted for this study are positive psychology (PP), positive organizational behavior (POB), psychological capital (PsyCap) and character strengths. Each of these four theoretical constructs is described below.

Theory of Positive Psychology

The first construct, positive psychology (PP), is central to this study. PP is defined as the scientific pursuit of optimal human functioning and applied interventions that leverage human strengths (adapted from Seligman, 2002; Gilbert, 2006). Research exploring “What is right” in human behavior has developed into a study of how to live an optimal life, defined by flourishing or thriving at an individual or organizational level (Seligman, 2011).

Embedded within the discussion of this framework is the PERMA conceptual model, which reflects five clusters of research in (a) Positive emotions, (b) Engagement, (c) Relationships, (d) Meaning, and (e) Accomplishments (Seligman, 2011). The PERMA model is now being taught as a conceptual framework for well-being and flourishing at institutions as diverse as the Wharton MBA program at the University of Pennsylvania, and to military cadet training at West Point. Cross culturally, applications of the PERMA model include the British National Institute of Health, the United States military, at elite schools in Australia and Europe, at impoverished schools in Mexico and Bhutan, at small groups in churches and families, and at countless organizations (Seligman, 2011). Key researchers in positive emotions include Frederickson (2009), in engagement (Csikszentmihaly, 1990), relationships (Brown, 2015), meaning (Lyubomirsky, 2007) and accomplishments (Dweck, 2006). The PERMA model may be used by positive psychology coaches to determine a coachee's focus area, possible intervention, or performance outcome. Specific outcomes, based on the PERMA model, for business leaders will be described throughout this chapter.

Theory of Positive Organizational Behavior (POB)

The second theoretical framework, positive organizational behavior (POB) focuses on human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement (Luthans, 2002). The criteria for a psychological resource to be included in the POB framework must be both theory and evidence-based (Luthans et al., 2015). Specifically, they must be (a) positively oriented, (b) measurable, (c) state-like or open to development, and (d) demonstrate performance impact (Luthans et al., 2015). Positivity is defined as an "integrated system of antecedents, processes, practices and outcomes that can be readily identified and agreed upon by diverse observers and stakeholders as uniquely surpassing standards of adequate functioning and adding sustainable value to both the individual and the context" (Youseff-Morgan & Luthans, 2013). That focus on outcomes that add sustainable value, and the unique context of any consulting intervention, such as a professional coaching intervention, will be referenced throughout this research.

Theory of Psychological Capital (PsyCap)

The third construct, psychological capital (PsyCap), is an emerging theoretical framework that describes the dynamic, positive capacities of individuals and groups (Luthans et al., 2015). PsyCap is defined as “an individual’s positive psychological state of development that is characterized by (a) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks, (b) making a positive attribution (optimism) about something now and in the future, (c) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed, and (d) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success” (Luthans et al., 2015). Those four first-order constructs can be remembered using the acronym “HERO.” Researchers now discuss the developmental state of “the HERO within” individuals and groups as a second order, higher, core construct (Luthans et al., 2015). That synergistic effect is similar to psychological resources theories (Hobfoll, 2002) and to the broaden-and-build theory (Frederickson, 2013, 2009).

Research has expanded from theoretical assertions of PsyCap in working adult populations (Luthans et al., 2006) to empirical evidence from a growing number of practical studies (Avey, Wernsing & Mhatre, 2011; Luthans, Avey & Patera, 2008). Here are three examples. One example is a longitudinal study with 172 working adults, which found that PsyCap development over 12 months increased positive emotions and well-being, while decreasing stress and anxiety (Avey et al., 2011). A second example measured the performance impact of a 3-hour training session designed to foster PsyCap, and found a 270% return on investment (Luthans et al., 2015). A third example of a 2-hour digital intervention designed to develop PsyCap found significant increases in PsyCap, and suggests the competitive advantage of similar interventions (Luthans et al., 2008). Interventions designed to measure the significance of PsyCap have been applied in additional domains such as interpersonal relationships, individual health, work outcomes and overall well-being (Luthans et al., 2013).

A newly validated construct, Leader Development PsyCap, mediates the relationship between leaders and learning climate, organizational support, social support, and workload on leader development behaviors (Pitichat, Reichard, Kea-Edwards, Middleton & Norman (2017). The construct of leader development PsyCap has not yet been applied by researchers using professional coaches, and the first author (Thiraput Pitichat, in personal communication on August 22, 2017) has encouraged this author to conduct such research.

Theory of Character Strengths

The fourth construct, character strengths, focuses on the virtues that enable individuals or groups to develop their potential (Peterson, 2006). Character strengths that are trait-like, measurable, universally adopted across cultures, and morally valued have been described by Peterson & Seligman (2004) using a classification of six core virtues as value domains (wisdom, courage, humanity, justice, temperance, transcendence) and 24 character strengths. The result is a glossary of character strengths that can be used as a reliable assessment or a descriptive tool for practitioners in positive psychology (Peterson, 2006; Peterson & Park, 2009). The construct of character strengths is used by positive psychology coaches to determine a coachee's focus area or a possible intervention.

One example of research using character strengths is the Values in Action (VIA) character strength assessment taken by over 5 million people (Niemiec, 2017). The VIA Institute on Character defines the VIA classification as a common language of personality traits that (a) reflect our personal identity, (b) produce positive outcomes for ourselves and others, and (c) contribute to the collective good (Niemic, 2017). The goal of character strength research is to provide a descriptive model that enables practitioners to apply language to situational contexts. For instance, a person with character strengths of creativity, kindness, honesty and perspective may or may not practice those character strengths in another context such as work (Niemiec, 2017). Character strengths measured by the suite of VIA assessments are more detailed than other popular instruments such as the Gallup Strengths Finder 2.0 or the Myers-Briggs Type Indicator, consequently many positive psychology coaches use the VIA assessment.

Applications of Positive Psychology

There are many recent applications of positive psychology research that inform leaders and managers, professional coaches, consultants or therapists. Four of those examples include applications in leader development, healthcare, resilience, and systems theory.

Applications in Leader Development

Positive psychology research applied to leader development is broad ranging, and the following examples illustrate the scope of those applications for leaders in business or schools. In business, for instance, the return on investment of 90-minute digital interventions on Psychological Capital (PsyCap) activities has been estimated at 270% (Luthans et al., 2015). Research in positive leadership variables (e.g., climate, relationships, communication and meaning) has found exceptional results in individuals and organizations (Cameron, 2013). Research in schools is redefining what it means to be successful members of society, or to make moral decisions (Dweck, 2006; Seligman, 2011).

Applications of positive psychology in leader development range broadly from positive leadership to neuroscience. One vision of positive leadership addresses cognitive, emotional, spiritual, and physical aspects of human nature (Lloyd & Atella, 2000). Another view describes how experience develop leaders (Yip & Wilson, 2010). Another view of positive leadership focuses on positive mindfulness, hope and compassion defined as “resonant leadership” (McKee & Massimilian, 2006). New neuro-science based leadership models are informing positive psychology researchers (Isen, 2009). For instance, research on neural pathways and emotional reactions called amygdala hijacks (Goleman, 1998) led Boyatzis & McKee (2005) to use fMRI brain imagery to assess the effects of positive and negative attractors on relationships (Boyatzis, 2014; Goleman, Boyatzis & McKee, 2002).

One measure of leader or managerial effectiveness is an engagement score. Annual survey data from Gallup Q12 assessments indicate that the percent of engaged employees has remained relatively flat, ranging from 26% to 30% from 2000 to 2012 (Harter et al 2013). Ongoing engagement score studies confirm that the “needle has not moved” in over a decade (Mattox, Van Buren & Martin, 2016).

Engagement level scores vary by leadership skills practiced. For instance, Kouzes and Posner’s (2016) research found that 37% of employee engagement scores were determined by leadership skills practiced by the managers of direct reports; that study included 650,000 direct reports in over 30 countries. If leadership skills can be taught and developed, and if frequency of desired behaviors can increase, then Kouzes and Posner (2016) ask, “Why aren’t we helping leaders develop those desired behaviors?” Five leadership practices that Kouzes and Posner (2016) recommend are (a) model the way, (b) inspire a shared vision, (c) challenge the process, (d) enable others to act, and (e) encourage the heart. Those leader development skills can be developed, and the gap can be reduced (Kouzes & Posner, 2016). These studies suggest that leader development approaches have not yet been effective in increasing employee engagement scores or positive psychology outcomes.

Applications in Healthcare

Positive psychology research applied to healthcare is in its infancy, and the following examples illustrate some of the challenges. Healthcare is a unique sector for research because organizational leaders need to continually integrate conflicting interests such as business concerns (cost) and social concerns (patient care). Healthcare is one of the fastest-growing business sectors in the United States, and it represents 20% of the United States gross domestic product (Wachter, 2015). Healthcare leaders represent a paradigm shift from vertical, hierarchical decision-making to networked integration models (Topol, 2015: Wachter, 2015). Lynch and Somerville (1996) describe networked integration models as a response to more transparent access to information, the ubiquity of technology, and data confidentiality requirements, amid competing demands for both innovation and cost control. One result of these economic and organizational changes is that healthcare leaders resist change, including changes that advocate positive psychology effectiveness or outcomes.

Many healthcare leaders are struggling for well-being (Helfand & Mukamal, 2013). Virtually 100% of nurses and physicians have endured rigorous academic study and residency demands of sleeplessness, critical observations, and ongoing critical feedback. Healthcare leader burnout and resilience are described as two sides of the same coin; leaders who score lower in burnout score higher in resilience, and leaders who score higher in burnout score lower in resilience (Scudder & Shanafelt, 2015). The scope of the well-being problem is vast; roughly 50% of all physicians complain of burnout, and burnout is higher among healthcare leaders than any other profession in the United States (Peckham, 2015). Healthcare leader resiliency and well-being programs that include positive psychology research have recently been developed at many medical schools, universities and hospitals (Cosgrove, 2014).

Healthcare leader burnout is a critical issue with tragic costs. Some 40% of physicians admit regular self-medication; the drugs of choice range from alcohol to amphetamines (Scudder & Shanafelt, 2015). Fifteen-percent (15%) of physicians have admitted to feelings of suicidal ideation in the last 24 months (Scudder & Shanafelt, 2015). Virtually 100% of healthcare leaders have experienced burnout at some point in their careers and at least 60% of the physicians in most practice groups are experiencing burnout right now (Drybe, Varkey, Boone, Satele, Sloan, & Shanafelt, 2013). The medical model approach to burnout typically focuses on the problem using three steps: diagnosis, treatment, and care (Maslach, Jackson & Leiter, 1996).

An alternative to the medical model, adopted by many coaching psychologists, is the person-centered approach model that investigates the intrinsic motivation of clients toward optimal functioning and client-centered coaching (Kauffman & Linley, 2007). Instead of adopting a medical or disease paradigm, positive psychology and coaching interventions adopt a selective focus on fulfillment and performance at the right place or right time (Kauffman & Linley, 2007). Recent research in resilience training for healthcare leaders is an emerging example of that person-centered approach to optimal functioning and well-being.

Applications in Resilience

Resilience is defined as both a (a) capacity/process, and (b) trait. For instance, resilience can be defined as "the capacity to adjust to changes and challenges in our life" as well as the ability to "spring back emotionally after dealing with stress or trauma" (Reivich & Shatte, 2002). Resiliency research in positive psychology ranges from studies of soldiers struggling with "posttraumatic stress disorder" (PTSD), to those who experience trauma that leads to "post traumatic growth" (PTG) such as flourishing or well-being (Tedeschi & Calhoun, 2004). As a coping process of adaptation, resiliency can be generally defined as the capacity to adapt successfully in the presence of risk and adversity. A related definition of resilience is "the capacity to respond to stress in a healthy way such that goals are achieved with minimal psychological and physical cost" (Epstein & Krasner, 2013).

The second definition of resilience describes a trait, based on recent strength-based studies in positive psychology. Resilience training is being taught to over 250,000 leaders in the U.S. Army as part of the Master Resilience Training program designed by Seligman and others (Seligman, 2011). Individual factors of resilience include the capacity for mindfulness, self-monitoring, limit setting and attitudes that promote constructive engagement with work (Epstein & Krasner, 2013). Characteristics of resiliency may be associated with psychological capital (Luthans et al., 2013; Luthans et al., 2015). In longitudinal research, resilience levels predict functional outcomes of people with disabilities who are aging (Silverman, Molton, Alchuler, Ehde, & Jensen, 2015). One conclusion from these studies is that resilience is a trait that can be measured and developed.

Applications in Systems Theory

To explain the complexity of human behavior, Senge (2006) describes a handful of archetypes that can be used to explain patterns of behavior. He explains that these patterns recur and lead to a haunting sense of familiarity or déjà vu. Examples of systems theory archetypes include shifting the burden, escalation, eroding goals, tragedy of the commons or fixes that fail (Senge, 2006). Perhaps because it recurs so often in organizational leadership, the shifting the burden archetype is a dramatic example for positive psychology practitioners.

The gist of the shifting the burden archetype is that there is tension between two opposing forces, each competing for the same limited support or resources. Just as our breathing is a natural pattern that requires balance between inhalations and exhalations, the shifting the burden archetype describes the tension between short-term and long-term solutions. For instance, a leader may want to provide effective quality care outcomes (like an inhalation) without any waste or inefficiency (like an exhalation). Tension is a natural phenomenon that requires leaders to find a balance.

In healthcare, for instance, one example of the shifting the burden archetype occurs when leaders depend upon short-term solutions to problems without focusing on the fundamental problem. If the turnover rate of leaders is over 80% in a remote location, then one short-term solution is to provide a hiring bonus of $5,000 - $15,000 plus direct moving costs up to $70,000. However, attrition remains so much of a fundamental problem that, once on location, some healthcare leaders need to stay at least 18 months before receiving a “hardship compensation” pay incentive. A second example of the shifting the burden archetype occurs when the number of independent physicians decreases because insurance companies demand increased compliance with paperwork. In frustration, many physicians choose to become staff physicians for large healthcare providers who provide scribes or additional nurses for compliance documentation.

A related example of applied systems theory, based on the natural tension between self-other, is called “differentiation of self” (Duggan & Moyer, 2009). They theorize that the smallest unit of systems learning is three people, because two people naturally expand emotional tension onto a third party to create a triangle, with continually shifting relationships between the participants (Duggan & Moyer, 2009). For instance, when describing a leader struggling with burnout, Duggan and Moyer (2009) would ask the leader to define the competing forces that create anxiety and then explore how to reduce that tension. Short-term responses to problems are not likely to solve the fundamental problems in any organization (Burke, 2014; Senge, 2006).

The shifting the burden archetype can be summarized by two aphorisms. Instead of an “either-or” view of opposing forces, leaders can choose to explore a “both-and” approach that fosters natural balance within the organizational system. When applied to leader resilience, systems theory provides a framework for explaining behavior at multiple levels. Resilience factors described in a 2011 RAND report identify multiple levels (a) individual (e.g., positive coping, affect, and positive thinking), (b) family (e.g., support and closeness), and (c) unit/medical practice/work group, and community levels (e.g., factor of belonging; Meredith, Sherbourne, Gaillot, Hansell, Ritschard, Parker & Wrenn, 2011). Resiliency training and leader well-being may require a systems approach to measure multiple factors such as loss of control, workload, specialty choice, experience with suffering (Poses, Smith & Maulitz, 2014). Resiliency training activities have been developed for over 250,000 members of the U.S. Army, and their loved ones (Lester, Harms, Herian, Krasikova & Beals, 2011). In summary, a system thinking approach to complex problems, like leader resilience, may become an effective protocol for practitioners of positive psychology coaching.

Professional Coaching

Professional coaching is defined as a leadership development process that typically includes assessments, ongoing accountability and actions toward a desired behavioral outcome or performance goal (Goldsmith, 2009). The goal of professional coaching with executives is to co-create a relationship between a leader and an internal (within the organization) or external coach (outside the organization) to enhance behavioral and psychological responses to change (Kilburg, 1996). The process of professional coaching assumes a collaborative relationship focused on the leader’s agenda that includes trust, confidentiality, a growth mindset, and intentional action (Kimsey-House, Kimsey-House, Sandahl & Whitworth, 2007).

Although many literature reviews describe exploding interest in executive coaching, that literature is largely comprised of opinion articles, calls for research, case studies or retrospective survey approaches (Hagen, 2012; Grant et al., 2010). Only one study with a small sample size (n=20) found that external executive coaching increased self-efficacy and causal attributions to strategy (Moen & Federici, 2012). Only one randomized controlled study explored the effectiveness of executive coaching on organizational change (Grant et al., 2009). Also, some researchers have expressed concern that executive coaching is merely a fad (Nowack, 2003) or that executive coaches who lack rigorous psychological training could do more harm than good (Berglas, 2002). The need for additional research on the effectiveness and outcomes of professional coaching is significant.

Professional Coaching Methodology

Theoretical frameworks for professional coaching range broadly from cognitive-rational to psychodynamic to solution-focused approaches (Passmore, 2005). The role of the coach is to support the leader’s agenda, to provide expertise, and to accelerate the leader’s development of mutually-defined behavioral outcomes such as a professional or personal goal. The role of the leader (also called a coachee or client) is to implement the assessment results into constructive actions and achieve desired goals.

Professional coaching is a customized leadership development process based on three assumptions: (a) a confidential, supportive relationship that enables the leader to reflect upon multiple perspectives of personal and professional success (Myers, 1999), (b) a solution-focused process based on the leader’s values and strengths can enhance well-being and self-efficacy

(Sheldon & Houser-Marko, 2001), and (c) a systematic feedback process that models self-regulation and resilience enables leaders to respond to external adaptation or internal change (Baumeister, Gailliot, DeWall & Oaten, 2006). Managerial coaching is described either by specific behaviors that a manager exhibits, such as open communication and a results focus, or by attitudes and skills, such as valuing the individual and fostering teamwork (Hagen, 2012). The result of professional coaching may be that leaders experience greater well-being, self-efficacy, change readiness, job satisfaction, and capacity to deal with workplace stressors (Grant, 2014).

Discussion about effective protocols, or best practices for professional coaching, is a popular theme within the literature. Three of the most commonly cited best practices include strategic reflexivity, increased self-awareness, and solution-focused thinking (Grant, 2014). Strategic reflexivity may be defined as the psychological and behavioral practice of stepping back from a leader's everyday tasks to reflect on the leader's underlying assumptions and possible actions (Day, de Haan, Sills, Bertie & Blass, 2008). Increased self-awareness is critical for leaders with a growth mindset who actively practice leadership (Kouzes & Posner, 2016) or the ongoing need to understand how one's personal thoughts, feelings and behavior may influence others (Gill, 2002). Solution-focused thinking toward constructive actions represents a mindset shift (in contrast to problem-focused reactive thinking) that enables leaders to focus on their current and desired future states (Grant, Cavanagh, Kleitman, Spence, Lakota & Yu, 2012). The result of these three best practices is increased self-efficacy and management skills (Baron & Morin, 2010). However, many professional coaches do not conform to these evidence-based protocols.

The action phase of the professional coaching process typically includes a written action plan agreement that includes observable and measurable outcomes. To increase organizational alignment, the leader, executive coach, leader's boss, and a human resources business partner typically meet for an initial meeting to review the coaching process and agree on a written action plan. If needed, milestones are defined and mutually agreed upon. At the end of the professional coaching engagement, a similar meeting occurs with the leader, executive coach, leader's boss, and human resources business partner to review the written action plan and to measure goal attainment (Underhill, McAnally & Koriath, 2007).

The design of each coaching session typically includes a solution-focused structure. Many leaders complete short forms prior to each coaching session, to define areas of focus, successes, failures, concerns, or needed resources. Some professional coaches provide written summaries of the leader's agenda items, possible takeaways, or actions completed. Typically, each session starts with an open-ended question such as, "What do you want to focus on today?" and concludes with a similar open-ended question such as, "What are you taking away from this session as possible actions that you may do next?" One reason for modelling this action-oriented structure is to provide a transferable leader development process that leaders can replicate with their own direct reports if expected to coach others (Underhill, McAnally & Koriath, 2007).

Technology also affects the mode of professional coaching. Virtual sessions using technology such as WebEx or GoToMeeting reduce the costs of direct meetings or travel. There is significant evidence indicating that virtual coaching sessions are as effective as direct meetings on measures of trust, self-efficacy, and performance outcomes (Kayworth & Leidner, 2002; Kahai & Avolio, 2010). In summary, the methodology of professional coaching is generally defined, although there are not widely adopted coaching protocols for effectiveness or outcomes.

Measures of Professional Coaching

Organizational leaders that invest in executive coaching require an efficient accountability process that measures engagement while protecting the confidential work between leaders and coaches. Investment levels average $25,000 USD for 6 months, about 45 hours, of executive coaching with leaders at the Director or Vice President level (Underhill, McAnally & Koriath, 2007). One example of accountability software includes biographical data, coaching frequency notes, action plan, assessment results, customer satisfaction surveys, and percent of investment spent. Typically, 360 degree qualitative interviews are conducted with 6-10 colleagues using semi-structured interview methodology to assess the leader's strengths, opportunities for development, or measures of behavioral change. Confidentiality in the accountability software is maintained by the coach who lists the names of those included in the interview process, but does not provide any specific information that could be perceived as incriminating. Information collected from the interview process is privately shared between the leader and the coach, much like the medical model of confidentiality. Organizational leaders with observer access to the software can view the key metrics of any individual coaching engagement (e.g., themes, session frequency, duration of engagement, percent complete, percent spent), as well as the organizational performance investment at any time. That high level of access to key metrics is an example of critical values (e.g., efficiency, partnership and data transparency) between organizational leaders and providers of professional coaching services (Underhill, McAnally & Koriath, 2007).

The question of outcome measures for professional coaching has led to countless opinion articles but few conclusions about protocols (Grant, 2014; Hagen, 2012). One approach to outcome measures is to measure Goal Attainment Scaling (GAS). For instance, a coaching protocol may include a self-report question like, “How successful have you been in achieving this goal, on a scale from 0% (no attainment) to 100% (complete attainment)?” Similar goal attainment scales have been used in studies of social sciences and coaching outcomes (Grant, 2014; Spence, 2007). A second approach to measure outcomes is the mini-survey approach developed by Wallis, Underhill & McNamara (2010). The leader distributes a set of 4-5 questions such as, “In the past 4 months, what behavioral changes have you observed in leader (name) that may be attributed to executive coaching?” The mini-survey process creates an expectation of behavioral change and expectancy theory reinforcement (Wallis, Underhill & McNamara, 2010). That quantitative data can be augmented by qualitative responses to open-ended questions such as, “What specific benefits has the investment in executive coaching in the last 4 months had on leader’s (name) behavior?” If leaders are frequently re-assigned within an organization, the use of mini surveys may be more reliable than other assessment measures, because the feedback describes the actual behavior of a leader with their current colleagues (Wallis, Underhill & McNamara, 2010).

The financial return on investment (ROI) is a third outcome measure described by researchers who argue that organizations have a financial responsibility to maximize profits and minimize costs (Hernez-Broome, 2010). However, other researchers argue that the process of quantifying the exact financial cost of a coaching intervention (estimated lost opportunity cost) or the financial benefit (estimated increased revenue or cost saving) cannot be accurately measured (DeMeuse, Dai & Lee, 2009). One meta-analysis on the ROI of executive coaching found significant outcomes on five categories: performance/skills, well-being, coping, work attitudes and goal-directed self-regulation (Theeboom, Beersma & van Vianen, 2014). The process of measuring ROI may be even more problematic or inaccurate during periods of organizational turbulence (Fitz-Enz & Mattox, 2014; Phillips, 1997). In summary, measurement models are available, practitioners and clients agree that coaching interventions should be evaluated, but measurement practices are not consistently executed.

Evidence-based Coaching

There is a discussion between researchers about the definition of two related practices: coaching psychology and evidence-based coaching. Coaching psychology is defined as the applied use of knowledge from a specific domain (i.e. behavioral science, cognitive therapy; Grant, 2007; Linley & Kauffman, 2007). In contrast, evidence-based coaching is defined as the use of best current knowledge, combined with practitioner expertise, to make decisions about how to deliver coaching (Stober & Grant, 2006). By analogy, if coaching psychology is the library of resources, then evidence-based coaching is the practitioner's use of how to apply the best current knowledge. That library of knowledge may include expertise from a broad range of domains (i.e. organizational behavior, business management, adult learning, social psychology, educational theory; Green & Spence, 2014). One definition of rigorous evidence-based coaching requires that an approach be superior to a control group in two randomized controlled trials with at least one of those trials conducted outside of the author's lab (Frisch, 2013). Both coaching psychology and evidence-based coaching have been found efficacious in a variety of contexts (Green & Spence, 2014). To date, there are few randomized controlled studies on the efficacy of professional coaching.

The literature on evidence-based coaching is dominated by opinion articles calling for additional research. Prior to 2005, only 131 articles were published on coaching, and that number increased to over 400 articles published from 2005-2010 (Grant, 2010). Only 69 published articles on coaching reference a theoretical orientation, practice model or an organizing construct (Spence & Oades, 2011). Only 18 published articles on coaching are between-subject studies, and 6 of those 18 articles adopt a cognitive-behavioral, solution-focused (CB-SF) approach (Spence & Oades, 2011). Those early research findings indicate that evidence-based coaching may increase outcomes in goal attainment, resilience, hope, and self-regulation (Grant & Cavanagh, 2011; Spence & Grant, 2013).

Very few published studies have applied evidence-based coaching to organizations, and only two of those studies include randomized controlled trials. Workplace coaching for 37 adults was found to enhance well-being of at-risk employees and to improve general health and life satisfaction (Duijts, Kant, van den Brandt & Swan, 2008). One of the most comprehensive studies of coaching in organizations (n= 245 managers and leaders) found that developmental coaching significantly increased outcomes in four leadership qualities (i.e. perspective-taking capacity, mindfulness, purpose and positivity; Cavanagh & Grant, 2006). These two studies, with small sample populations, represent the paucity of rigorous research and a gap that needs to be filled.

Positive Psychology Coaching (PPC)

By definition, professional coaching focuses on the performance and well-being of leaders who need to achieve organizational goals or model peak performance (Green & Spence, 2010). The new phrase “positive psychology coaching” (PPC) mirrors the integration of coaching psychology and positive psychology. This study adopts the definition for positive psychology coaching as the practice of coaching combined with a focus on what is right, positive emotions, and signature strengths of a coachee (Biswas-Diener, 2010). There are no known studies conducted on the efficacy of PPC, although there are related studies using positive psychological constructs as dependent variables (Green & Spence, 2010).

One model for PPC with over 7,200 downloads was developed by Giffen and Zhivotovskaya (2007). PPC protocols may be adapted from these seven phases of a typical coaching relationships: (a) initial assessment – assessing the client's current state, signature strengths and resources, (b) setting goals – clarifying the client's goals and objectives and defining professional or personal success, (c) accepting reality – reducing the energy drains that result from challenging the current situation, (d) building positives – enhancing and leveraging the client's strengths, optimism, hope, gratitude and success patterns, (e) reducing negatives – diminishing negative thinking, limiting beliefs and building resiliency, (f) enhancing relationships – broadening and building connections at home and work, (g) creating meaningful contributions – identifying the client's mission, purpose or calling, finding meaningful ways to serve, and achieving business results (adapted from Giffen & Zhivotovskaya, 2007). The need to explore the relationship of a coaching protocol, like the one above, provided by professional coaches in multiple environments, is substantial.

Positive Psychology Coach Training (PPCT)

The coach training industry is estimated at 53,500 global coach practitioners and over $7B USD in annual revenue, with 115 accredited coach training programs (ICF, 2016). The International Coaching Federation (ICF) hosted the largest global survey (n=15,380, with 38% non-members) of coaching practitioners (internal, external or both) and managers or leaders using coaching skills in Human Resources, Talent Development, or any line of business (ICF, 2016). That survey identified the top future obstacles for coaching as (a) untrained individuals and (b) marketplace confusion (ICF, 2016). The survey also identified the top future opportunities for coaching as (a) increased awareness of the benefits of coaching, and (b) credible data on ROI/ROE/outcomes (ICF, 2016). Those survey findings suggest a significant need for research on the effectiveness of coach training, especially digital training using evidence-based coaching protocols.

The rise of technology in the training industry is well documented. In 2015, 42% of learning hours were delivered by technology-based methods, an increase from 26% in 2003 (ATD, 2016). Technology-based learning can be delivered online (classrooms or mobile devices), self-paced, or using other technology (audio or video). The traditional classroom model, with an instructor and learners in a shared space, is used for less than 40% of the training in 2015 at information and software companies, which are often trailblazing business sectors (ATD, 2016). Innovative global businesses, such as IBM, use virtualization technologies such as gaming and simulation training as an important organizational tool in digital leadership development training (Dodgson, Gann & Phillips, 2013).

Current investments in professional coaching services vary greatly. Organizational leaders typically invest in external coaching engagements for senior leaders (directors and above), and internal coaching engagements for newly promoted managers or identified high potential leaders on a desired retention list (TCB, 2014). The most frequent topics for external coaching engagements are (a) executive presence and influencing skills, (b) ability in leading teams and people development, and (c) relationship management (TCB, 2014). In 2014, the most frequent types of coaching used in external coaching were development-focused coaching, performance-focused coaching, and 360 debrief and other assessment tools (TCB, 2014). In contrast, internal coaches are primarily full-time Human Resource employees that work part-time on coaching, spending 10% of their time coaching one to five coachees (TCB, 2014). Most companies (70% in 2014) do not have any funding for internal coaches, and some companies charge the expense back to the coachee's line of business (TCB, 2014). Internal coaches may be selected because they have a unique understanding of the business or an ability to develop leaders within the organizational hierarchy.

Applications in Leader Development

The strengths-based approach to leader development is an increasingly popular approach for professional coaching. Traditional approaches to leader development programs focused on competency gaps, fixing problems or overcoming weaknesses. In 1998, when positive psychology became a focused discipline, Seligman and Csikszentmihalyi (2000) called for research on human strengths and virtues. The result was a shift from research on problems and dysfunctions in society toward a more balanced view that includes research on thriving or optimal performance of leaders (Linley & Kauffman, 2007).

The multiple case study methodology provides some insight into how leaders develop their strengths. For instance, Welch, Grossaint, Reid and Walker (2014) interviewed six expert coaches from two countries with experience in strengths-based leadership development. Welch et al (2014) identified four themes that guide positive psychology coaching methodology: (a) strengths development is intrinsically motivating and energizing, (b) strengths develop through relationships, (c) strengths work does not ignore a leader’s blind spots or shadow side, and (d) strengths work depends on the self-awareness and authenticity of the coach. However, those four themes have not been incorporated into positive psychology coach training methodologies or protocol outcomes.

Research on leader development using professional coaching is challenging to conduct for at least four reasons. First, there is no established coaching methodology, therefore methodological consistency or replication is challenging (DeHaan & Duckworth, 2013). Second, the vast range of potential outcomes from coaching has led to a focus on process (e.g., goal attainment) rather than content outcomes (e.g., leadership competencies) as well as a focus on self-reports rather than organizational outcomes (Spence, 2007). Third, coachees represent different levels of abilities, with unique capacities to change, and unique motivations, therefore allocating organizational resources and predicting coaching outcomes is a challenging process (Best, 2010). Fourth, and most critically, organizations are increasingly volatile, uncertain and dynamic with complex needs (Luthans et al., 2015).

One of the most researched and comprehensive models of leader development is the multifactor leadership theory or full range leadership model (FRLM; Bass & Avolio, 1997). The Multifactor Leadership Questionnaire (MLQ, Bass and Avolio, 1997) assesses transformational, transactional and avoidant elements of leader behavior, and has been used as an outcome variable for leadership coaching (Cerni, Curtis & Colmar, 2010). One study used the FRLM to measure the effectiveness of strength-based executive coaching on transformational leadership behavior, using 11 executive coaches and a manualized coaching protocol (MacKie, 2014). The process of creating a manual was assumed to reduce operational inconsistency by standardizing the intervention and providing an objective index of compliance to the coaching protocol outcomes (MacKie, 2014). To measure effectiveness, clients in each session were encouraged to reflect on the process, rate goal attainment, list explicit actions, and self-rate their progress to date (MacKie, 2014). Strength development was measured using four criteria: (a) strengths awareness based on the MLQ and Realise2 (Linley, Willars & Biswas-Deiner, 2010) assessments and actions taken, (b) managing strengths, (c) pairing strengths with other skills or abilities, and (d) linking strengths with business outcomes or intrinsic interests. Those four criteria defined the core of a strength-based leadership coaching protocol (MacKie, 2014). However, that coaching protocol has not been replicated in large sample populations using professional coaches.

Positive Psychology Assessments

One outcome from recent research in positive psychology is the development of several validated strengths-based assessments. Strengths are defined as natural talents combined with knowledge and skills (Buckingham & Clifton, 2001). For instance, Gallup researchers have identified important strengths in a leader (e.g., trust, hope, caring and stability). The Clifton's Strengthsfinder assessment has been used by 7.8 million people to assess natural strengths (Welch, Grossaint, Reid & Walker, 2014). Other popular strengths-based assessments include the Values in Action (VIA) inventory (Peterson & Seligman, 2004), Realize2 inventory (Linley, Willars & Biswas-Deiner, 2010) and the Reflected Best Self inventory (Roberts, Dutton, Spreitzer, Heaphy & Quinn, 2005). These strength-based assessments share a theoretical assumption that when people know their preexisting capacities or strengths, then they can integrate that knowledge into how they behave, think or feel.

The Quality of Life Inventory (QOLI) has recently been used in evidence-based and empirically validated approaches to both positive psychology therapy and positive psychology coaching (Frisch, 2013). In fact, the concurrent, discriminant, predictive, and criterion-related validity of the QOLI assessment is so high that in 2008 the QOLI was chosen for inclusion in the American Psychiatric Association's 2008 Handbook of Psychiatric Measures (Frisch, 2013). The QOLI may be used with an intervention approach, called Quality of Life Therapy and Coaching (QOLTC), to help clients identify and pursue 16 valued areas of life that comprise well-being, also called the "sweet 16" (Frisch, 2013). The QOLTC theory integrates findings from positive psychology, quality of life and social indicators research, psychotherapy, cognitive therapy, and coaching into an individually tailored package of interventions (Frisch, 2013).

After extensive research, there are no known examples of the QOLTC coaching protocol program extended to leader outcomes.

One example of research in assessments and positive psychology coaching explored covariation between two assessments that are frequently used by coaches to assess positive factors such as strengths and preferences. Choong and Britton (2007) found significant covariation between the Myers-Briggs Type Indicator (MBTI) and the Values in Action Inventory of Strengths (VIA-IS). Specifically, they found significant covariations between nine signature strengths and single types, as well as three signature strengths (love, integrity, and gratitude) that co-varied with multiple types (Choong & Britton, 2007). That finding raises questions about how practitioners may implement strength-type assessment results. For instance, the strength of vitality co-varies with the extraversion type. That fact raises the questions, “What if a client is introverted? How is vitality in an extraverted client distinguished from an introverted client?” The need for research on the effectiveness of applied positive psychology models using validated assessments remains significant (Kauffman & Linley, 2007).

One example of protocols applied to mental health, used by clinicians or therapists, applies the quality of Life Inventory (QOLI) to interventions and the CASIO model of life satisfaction, also called the Five Paths to Happiness model (Frisch, 2013). The client lists actions for managing a problem, such as changing circumstances (C), attitudes (A), goals or standards (S), priorities or importance (I), and overall (O) satisfaction or well-being. When the CASIO model is applied to the 16 areas of happiness, individual skills and strategies can lead to an individualized profile report and weighted satisfaction profile (Frisch, 2013). Therapists use assessment data and the QOLTC individualized treatment model for interventions before

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sessions, or after sessions have finished. However, these clinical protocols described by Frisch (2013) for therapists have not yet been adopted by professional coaches.

Applications in Therapy

Positive psychology interventions have been applied to individual therapy designed to increase well-being or to reduce clinical issues such as depression, anxiety, smoking cessation, and substance abuse (Magyar-Moe, 2014). Therapists, like professional coaches, apply assessment models before process interventions. One example of a positive psychology therapy assessment model is the four-front approach to a client’s strengths, weaknesses, and environmental destructive or constructive forces (Wright & Lopez, 2002). Another example of a positive psychology therapy assessment is the complete state model (Keyes & Lopez, 2002) based on two continua of mental illness and mental health. Individual clients can be described using a 2x2 box model as (a) flourishing or mentally healthy (e.g., low symptoms of mental illness and high symptoms of well-being), (b) floundering or mentally ill (e.g., high symptoms of mental illness and low symptoms of well-being), (c) languishing or incompletely mentally healthy (e.g., low symptoms of both mental illness and well-being), or (d) struggling or incompletely mentally ill (e.g., high symptoms of both mental illness and well-being; Keyes & Lopez, 2002).

After completing the assessment phase, therapists may implement one of six counseling processes. One process, Strengths-Based Counseling (Smith, 2006), progresses through 10 stages from developing a therapeutic alliance, identifying strengths, refocusing from problems to solutions, developing competence, building resilience, and honoring the change process. A second process, Strength-Centered Therapy (Wong, 2006), helps clients construct a new approach based on four phases (explicitizing, envisioning, empowering and evolving). A third process, Quality of Life Therapy (Frisch, 2006), helps clients to increase satisfaction or reach goals by focusing on objective circumstances, subjective attitudes, standards of fulfillment, and importance of each aspect of one's life.

A fourth process, Well-Being Therapy (Ruini & Fava, 2004), uses client self-observations, structured journal writing assignments and interventions that re-design beliefs with well-being engagements, instead of irrational beliefs. A fifth process, Hope Therapy (Lopez, Snyder, Magyar-Moe, Edwards, Pedrotti, Janowski, Turner & Pressgrove, 2004), encourages clients to focus on will, pathways and agencies that enable clients to develop hope in four competencies: finding, bonding, enhancing and reminding (self-monitoring). A final process, Positive Psychotherapy (Rashid, 2008), is based on the assumptions that (a) all people are susceptible to mental illness and maintain an inherent capacity for happiness, and (b) a client's strengths and positive emotions are as relevant to therapy as weaknesses and negative emotions. Positive psychotherapy, designed in 14 sessions, has demonstrated efficacy with large to medium effect sizes (Rashid, 2008) for the treatment of depression, as well as enhancing happiness, using web-based studies in multiple sample populations (Seligman, Rashid & Parks, 2006). In summary, several positive psychology intervention protocols have been applied to individual therapy by counselors.

Applications in Social Media

The proliferation of social media as a data collection and e-leadership tool is well documented, although examples implementing positive psychology are minimal (Kahai & Avolio, 2010.) One goal of data collection using social media is to attract a broad sample population of early adopters who have a high level of electronic trust or e-trust (Mayer, Bobko, Davis & Gavin, 2011.) A second goal is to attract social media users that may be interested in assessing or developing their positive psychology (PP) scores over time. A PP score may be a useful descriptive accountability tool for practitioners in the helping or service profession, such as consultants, coaches, managers, healthcare providers or educators (Schein, 2016). Data collection may be simple. For instance, the researcher recently posted a request for feedback on the LinkedIn platform to 2,600 first level connections and 30 people responded within days. Similar requests or contests on the Facebook platform may be developed to assess positive psychology protocols.

Applications in Gamification

Games typically have four defining traits: a goal, rules, a feedback system, and voluntary participation. Gamification can be defined as "the digital, voluntary attempt to overcome unnecessary obstacles" (McGonigle, 2011). The technology and process of using digital points, badges and levels (PBL) to reward desired behaviors is well defined (Zichermann & Cunningham, 2011). However, the application of positive psychology protocols using gamification is in its infancy. There are numerous studies on the explosive user adoption rates of gamification. Perhaps surprisingly, one of the largest game user groups is women, ages 30 and above, who share scores or use technology to reinforce social relationships (McGonigal, 2011). One example of applied positive psychology, a gamification app called SuperBetter, is being used by over 500,000 users to assess and develop resilience (McGonigle, 2015; Wakefield, K. personal communication, January 13, 2016). However, after extensive searches of the Android and Apple app stores (May 2017), the researcher could only locate one app that focused on positive psychology (Happify) and no apps could be located that focus on positive psychology consulting or coaching.

Applications in Digital Training

Several researchers have stated that the most critical need in positive psychology research is empirical validation of assessments, theories and interventions (Deiner, 2000; Linley & Kauffman, 2007; Seligman, 2011). Digital applications of positive psychology effectiveness and outcomes are one example of a response to that need. Digital applications include smart phone applications, web exercises, chat groups, and virtual positive psychology communities (Frisch, 2006; Mitchell et al., 2017). Those digital resources may be used to augment traditional coaching interventions (Linley, 2017), or to increase user adoption rates from coachees in rural disparities or in a lower socio-economic status (Frisch, 2013). The call for continued research designs and protocols for online positive psychology coach training (PPCT) has been cited by Parks (2014; and in personal communication, July 15, 2017), who states the need to replicate the web-based training intervention designed to develop Psychological Capital in different populations (Luthans et al., 2008). However, there are no protocols for professional coaches using digital training, despite the technological capacity to develop those protocols.

Meta-analysis studies have found that web-based interventions are at least as effective, and sometimes more effective, than direct interventions (Sitzmann, Kraiger, Stewart & Wisher, 2006). Multiple studies include calls to action for positive interventions in clinical applications (Luthans et al., 2008) and online applications (Bolier & Abello, 2014) that may relieve suffering and someday be the practical legacy of positive psychology (Seligman et al., 2005). One of the top predictors of online learning and achievement is non-interactive video with commentary by a facilitator (Bernard, Abrami, Lou, Borokhovski, Wade, Wozney, Wallet, Fiset & Huang (2004). Web-based training interventions designed to develop positive PsyCap have been found to have a significant result after only two one-hour online sessions with employees (Luthans et al., 2008). There is a significant need for research on the relationship of digital training on positive psychology coaching protocols, applied by professional coaches, on client outcomes.

Applications in Positive Technologies

The use of digital technology to foster personal growth, develop human virtues and strengths, and develop social and cultural impact, has increased exponentially in the last 20 years (Botella, Banos & Guillen, 2017). The introduction of information and communication technologies (ICT) combined with positive psychology, has made it possible for clinicians and professional coaches to reach populations that otherwise would not have access to Positive Psychology Interventions (PPIs; DeWeger, MacInnes, Enser, Francis & Jones, 2013). In fact, a recent meta-analysis concluded that the most commonly used modality for delivering PPIs was online, self-applied format (Bolier, Haverman, Westerhof, Riper, Smit & Bohlmeijer, 2013).

The term “positive technologies” (PT) refers to the “scientific and applied approach to the use of technology to improve the quality of personal experiences” (Botella et al., 2017). A classification system for the impact of Positive Technologies (PTs) describes three levels: (a) hedonic PTs (e.g., emotional regulation such as a virtual reality or virtual augmentation experiences that promote pleasure), (b) eudemonic PTs (e.g., flow and presence activities that add meaning or purpose), and (c) social PTs (e.g., collective communities that support communication among social group members). Evidence supporting the effectiveness of positive technologies includes multiple populations such as the elderly, mentally ill, PTSD victims, grief victims (Botella, et al., 2017).

Summary

The value of positive psychology coaching protocols may be increased effectiveness, efficiency and outcomes. Just as individualized tele-medicine provides immense value to leaders and patients in any geography, individualized positive psychology coaching protocols may provide immense value to leaders or managers. One vision of positive psychology coaching (PPC) includes both protocols and validated assessments (the science), as well as customized recommendations for interventions designed by coaches (the art), that enable more clients to increase the probability of achieving their behavior or performance outcomes. The goal of such individualized content may enable future leaders to (a) develop themselves, or (b) attract, develop and retain desired leaders in their organizations. Professional coaches have access to clients needed for such efficacy research, based on the positive psychology literature, and professional coaches also have the practical experience to test digital interventions (Kauffman & Linley, 2007; Linley, 2017).

The following chapter describes a quasi-experimental study that examined the relationship between an evidence-based positive psychology coaching (PPC) protocol, applied by global professional coaches, and the behavioral outcomes of leaders.

Chapter 3: Research Design and Method

Introduction

Leaders often struggle to balance performance outcomes and individual well-being (Seligman, 2011; Cameron, 2012). There is strong evidence that the best leaders maximize the strengths in others, rather than any weaknesses or competency gaps (Kouzes & Posner, 2016). There is related evidence on the significance of short interventions in strength-based executive coaching (MacKie, 2014) on goal attainment and organizational change (Grant, 2014). However, only one randomized controlled outcome study has been found that examined the impact of executive coaching that was conducted by professional coaches (Grant, Curtayne & Burton, 2009). The goal of this chapter is to describe the research design, method and procedure of this research.

Purpose of the Study

The purpose of this quasi-experimental study was to assess the influence of a positive psychology coaching (PPC) program, applied by global professional coaches, on the perceived behavioral outcomes of leaders. The tenets and evidence-based practices of positive psychology coaching were measured using surveys at Time 1 (T1) and three months later at Time 2 (T2). There were five independent variables: compliance to a digital intervention program in Positive Psychology Coaching (PPC), and four demographic variables (age, gender, location, years in the profession) of global coaches. Three primary instruments were used to gather dependent measures of performance: (a) the Psychological Capital Questionnaire (PCQ-12; Luthans et al., 2015), (b) the Values in Action (VIA-72) questionnaire (Peterson & Seligman, 2004), and (c) the Outcome measures survey that included the Goal Attainment Satisfaction (GAS) score. To deepen understanding of the study, four open text box questions about effectiveness and goal attainment were included in the Outcome Measure Survey at T2.

Research Design

The core aim of this study was to examine the relationship of positive psychology coach (PPC) protocols and behavioral or performance outcomes of leaders. To evaluate the relationship between PPC and leader outcomes, the following three (3) quantitative research questions were presented, together with the null hypotheses (H_0) and alternative hypothesis (H_a) associated with each research question. In addition, the open text box subquestions are presented below.

Quantitative Research Questions

The first question explored the relationship (if any) of professional coaching on leader outcomes.

Q 1: What is the relationship (if any) between participation in professional coaching and behavioral outcomes of leaders?

H01: There is no significant relationship between participation in professional coaching and behavioral outcomes of leaders.

H1: There is a significant relationship between participation in professional coaching program and behavioral outcomes of leaders.

The second question explored the relationship (if any) of positive psychology protocols on leader outcomes.

Q 2: What is the relationship, if any, between Positive Psychology Coaching (PPC) protocols and the behavioral outcomes of leaders?

H02: There is no significant relationship between Positive Psychology Coaching (PPC) protocols and the behavioral outcomes of leaders.

H2: Participation in at least 60 minutes of digital training on positive psychology coaching (PPC) protocols using the AD-FIT^{TM} model, for coaches in group A, will have a more significant positive impact on the behavioral outcomes of leaders, than for those leaders in group B.

Q 3: What is the relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral outcomes of leaders?

H03: There is no significant relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral outcomes of leaders.

H3a: Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher scores on the Goal Attainment Scales (GAS) and more benefits for their coachees than those with lower levels of compliance, or those in group B.

H3b: Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher Psychological Capital (PsyCap) scores in hope, efficacy, resilience and optimism between T1 and T2 than those with lower levels of compliance, or those in group B.

Open Text Box Subquestions

The overall question guiding this study was, “What is the relationship between positive psychology coaching (PPC) protocols, applied by global professional coaches, on behavioral or performance outcomes of leaders?” This study was further grounded by three open text box subquestions:

1. What specific benefits (if any) has the coaching had on your coachees performance outcomes (e.g.,: Key Performance Indicators, business goals)?
2. What specific benefits (if any) has the coaching had on your coachee's behavioral outcomes (e.g.,: frequency, attitude, new actions)?
3. What are some examples of the performance and/or behavioral outcomes your coachee has attained in the last 3 months?

Those open text box questions were further grounded by the Goal Attainment Scale (GAS) question, "How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?" Those subquestions were included in an outcome measures survey provided to participants in group A and group B.

Research Method

Sample Size and Data Analysis

The global population of coaches is estimated at 53,500 global coach practitioners (ICF, 2016). From that population, a subset of 5,570 coaches was invited to participate in this study. That subset was comprised of two global professional coaching organizations CoachSource (*n* = 1,200) and the International Coaching Federation (*n* = 4,370). A priori analysis, with a targeted 10% expected response rate was expected to yield 557 total participants, with 279 in group A and 279 in group B (p < .05; Lipsey, 1990). The minimum number of participants necessary for a small effect size (0.2) using a two-tailed t-test, based on G Power 3.1.9.2 software was 620 total participants, with 310 in group A and 310 in group B.

The directionality of the research questions further decreased the minimum number of participants in this study. The research questions hypothesize that the expected outcomes of the coaching intervention include improved desired outcome behaviors. Because those outcome behaviors are predicted to be directional, a one-tailed t-test was applied to this study. Consequently, a smaller sample size may provide sufficient power to yield a statistically significant result. The minimum number of participants necessary for a small effect size using a one-tailed t-test, based on G Power 3.1.9.2 software, is 132 total participants, with 66 in group A and 66 in group B.

When the analysis was scoped using ANOVA rather than a t-test, the minimum number of participants necessary for a small effect size (0.1) was reduced. For a repeated measures within and between groups analysis, the recommended ANOVA sample size was reduced to 200 total participants, with 100 in group A and 100 in group B. When the ANOVA measurement was deployed with a larger effect size of 0.2, then the total sample size was reduced to 51 total participants, with 26 in group A and 26 in group B. See Figure 2. This study targeted a minimum number of at least 200 participants, and continued with at least 51 participants, because similar studies reflect the challenges of gathering data from professional coaches (Grant, 2014; MacKie, 2014). The T2 survey data included 54 participants, which exceeded the minimum number required for g power significance, as described in Figure 2.

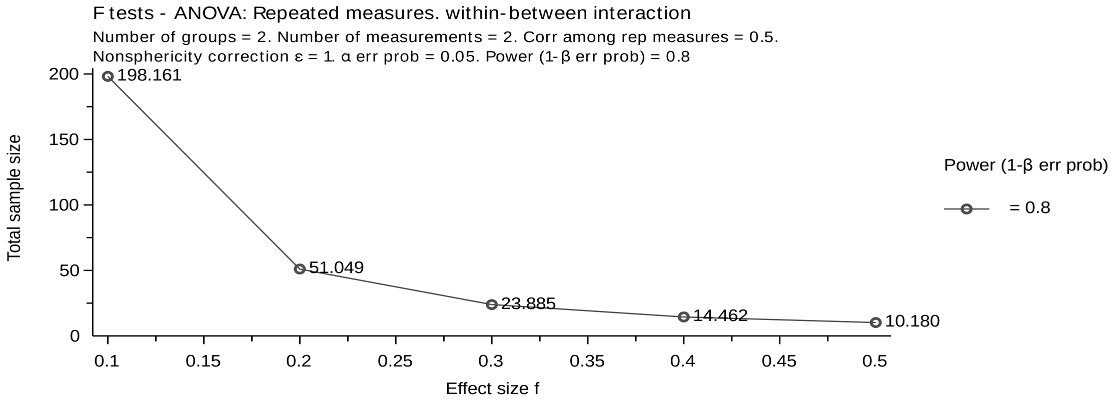

Figure 2: Required ANOVA Data Analysis in this Research

Participant Recruitment

Coaches, not coachees, were recruited to participate in this study. The recruitment process began with an email invitation to participate. Written permission to conduct the study was granted from executives at two global professional coaching populations: CoachSource (*n* = 1,200) and the International Coaching Federation (ICF; *n* = 4,370). In this research, *n* represents the number of coaches within each organization that were invited to participate in this study. The invitation to participate in research was sent directly by executives at those organizations to minimize any potential researcher bias. The invitation explicitly stated that participation in the study was voluntary, anonymous, and there was no benefit or liability for those who did not choose to participate. Additional participants were invited using snowball techniques and social media until 200 participants are included. See Appendix A for the full invitation.

Timeline

The invitation to participate was open for 3 weeks. The executive leaders were given written instructions to send reminder emails, if required, to obtain the desired sample size of 200 participants. The threshold sample level of 200 total participants was achieved, therefore a reminder email did not need to be sent.

Participant Selection and Inclusion

Participants who met six inclusion criteria were eligible to participate. The inclusion criteria were (a) participants were able to read and understand the English language, (b) coaches were in a coaching relationship with a business leader for at least the next three months, (c) participants were willing to participate in approximately one hour of free digital training in a positive psychology coach training (PPCT) protocol, designed by the researcher, (d) participants were willing to participate in two sets of digital surveys (e.g., at T1, two surveys approximately

30 minutes each, 60 minutes in total, and at T2, one survey approximately 30 minutes in total), (e) coaches must agree to abide by the professional and ethical standards defined by the International Coaching Federation, and (f) participants must be at least 21 years old. Participants confirmed their understanding that they may opt out of the research at any time. No additional exclusion criteria were added to the agreement to participate. Exclusion criteria were defined operationally as anyone who provided a “no” response to any of the six inclusion criteria described above.

All the professional coaches invited to participate in this research (*n* = 5,570) had been previously certified by two global organizations as experts. The CoachSource coaches invited to participate in this research were included because that organization vetted them. No additional vetting was included prior to this research. The CoachSource participants exceeded the following seven criteria: (a) must be a specialist in leadership effectiveness coaching, (b) must have extensive experience coaching senior leaders, (c) must have 5+ years of experience coaching, including at least two years as an independent consultant, (d) must have business experience, (e) must have a client list of Fortune 500 organizations, (f) must have attained an advanced degree, and (g) must demonstrate executive presence. Over 40% of the CoachSource coaches also held credentials within the International Coaching Federation (ICF). All CoachSource coaches had previously signed agreements to abide by the ethical guidelines defined by the ICF.

The ICF coaches invited to participate in this research were all certified by the ICF at the associates (ACC), professional (PCC) or master (MCC) level. All ICF-certified coaches have previously signed agreements to abide by the ethical guidelines of confidentiality as described at the ICF website. In addition, all coaches invited to participate in this research confirmed their acceptance of the ethical and professional guidelines defined by the International Coaching Federation (ICF).

Participant Demographics

General participant demographic information was collected on age, gender, years of experience as a professional coach, and primary geographic location of the coach. Those four independent variables were used to measure the cultural variability of this sample population. Those results are described in chapter 4.

Ethical Assurances

Participant Confidentiality

Participant confidentiality was designed to protect the individual rights of all participants. No personal identifying information (name, work location, or any other identifiable information) was collected as a part of this research. Participants were not directly or indirectly identified or associated with any responses. Analysis was only conducted on the aggregate survey data. The results of this research were used solely for scholarly purposes.

Confidentiality was protected for each participant by software (Survey Monkey^{TM}, a commonly used data collection provider) that generated user ID numbers. Those ID numbers were assigned by the data collection software. There were no penalties for lack of participation in this study. The risk of participation in this research was minimal for all participants and was approved by the Internal Review Board of the Chicago School of Professional Psychology. The results for each participant, identified by user ID numbers, were stored in a secure digital folder by Amazon Web Services and regularly backed up. Once the data files from T1 and T2 were collected, the researcher deleted the email addresses so that the results could not be identified or associated with any individual participant. The researcher had no physical or written records to identify the participants in group A or group B.

Procedures

Intervention Program Design

The Positive Psychology Coach Training (PPCT) program was designed in response to a perceived need for development of leaders actively engaged in professional coaching. The confidential relationship between coaches and coachees was maintained throughout this research. Autonomy and mastery are critical aspects of professional coaching relationships and were maintained throughout this research.

Participant Group Assignments

Individuals willing to participate in research clicked on a weblink URL that auto-generated a secure unique user identification for each participant. Anonymity was provided using MD5# security software, provided by a third-party vendor, that encrypted all data associated with that participant.

The T1 intake form included a definition of positive psychology and the question, “To what extent does your current coaching practice include these positive psychology practices?” The top half of participants were sorted into group A (i.e., “encouraged to implement the PPC program content”) and were introduced to the AD-FIT^{TM} model using a digital training program. The bottom half of participants were assigned to group B (i.e., “not encouraged to implement the PPC content”) and were not introduced to the AD-FIT^{TM} model. Participants in group B were provided a similar digital training program that reviewed standard coaching procedures.

To encourage compliance to the coaching protocols, participants in group A and group B who participated fully in the research were included in a pool with a chance to win one of four

$50 Amazon gift card rewards. The random selection and distribution of those $50 Amazon gift card rewards was conducted by the researcher within 30 days after closing the T2 survey. No additional expectations or rewards were provided to any of the participants.

Digital Training

Participants in group A completed one hour of positive psychology coach training using a web-based video sharing site. The design of that digital content included short videos, links to the positive psychology assessments, an outline of recommended coaching protocols for 6 sessions, and a series of recorded webinars designed to provide consistent instruction on evidence-based positive psychology coaching practices. Any prior expertise with evidence-based research, or with positive psychology coaching, was not required. Participation in the digital coach training program was not required. The participants in group A were "encouraged to incorporate positive psychology content into their work" with their leaders (coachees) using the AD-FIT™ model. The coaches in group B were not introduced to positive psychology content and were not introduced to the AD-FIT™ model. To treat the groups consistently, the coaches in group B were provided with one hour of digital training that was not related to positive psychology. Compliance to the PPC coaching protocols was assessed by each participant at T2. See Appendix B for the Outcome Measures Survey assessment.

The AD-FIT™ model was piloted by the researcher with hundreds of leaders and was developed in response to a perceived need for a protocol based on evidence-based practices in positive psychology. Step 1 (A) is to assess the coachee's top five signature strengths and assess their growth mindset. Step 2 (D) is to define a meaningful goal or outcome for the coachee. Those two steps provide a baseline for any coaching engagement; the remaining four steps describe additional protocols that can be used in any individual session. Step 3 (F) is to focus on the coachee's agenda. Step 4 (I) is to discuss interventions or possible actions for the coachee. Step 5 (T) is to summarize takeaways or next steps for the coachee. Step 6 is to assess the percentage of compliance with this AD-FIT$^{\text{TM}}$ model during coaching. See Appendix C for details.

Once participants were assigned to group A or group B, they had three months to complete the digital training and apply the content with a client. That 3-month intervention period replicates a similar research design by Grant (2014) and MacKie (2014).

At T1, participants were asked to complete two online surveys consisting of 84 Likert-scale questions and four open-ended questions. The survey at T1 required approximately 30 minutes to complete each survey, or 60 minutes in total. At T2, participants were asked to complete one online survey, which required approximately 30 minutes to complete. See Appendix B.

Instrumentation

There were two personality assessment instruments and one outcome measures survey instrument for each participant in this study. See Table 2.

Table 2: Research design, instruments and treatments

Group	T1 Instruments	Treatment	T2 Instrument
A (*n* = 100)	Psychological Capital Questionnaire (PCQ-12), Values in Action (VIA-72)	Digital training in positive psychology coaching using the AD-FIT^{TM} model	Psychological Capital Questionnaire (PCQ-12), Outcome measures survey
B (*n* = 100)	Psychological Capital Questionnaire (PCQ-12), Values in Action (VIA-72)	Digital training in standard coaching methodology	Psychological Capital Questionnaire (PCQ-12), Outcome measures survey

Personality Assessment Instruments

At T1 all participants in the research were encouraged to take the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio & Luthans, 2011) and the Values in Action (VIA-72) Classification of Character Strengths and Virtues. At T2 all participants were encouraged to take the Psychological Capital Questionnaire (PCQ-12) only, because it measures developmental changes over time, and the results from the VIA-72 are not likely to change in 3 months.

The construct validity and reliability of Psychological Capital (PsyCap) theory has been defined as an individual or group psychological state of development that is characterized by (a) self-efficacy, (b) hope, (c) optimism, and (d) resilience (Luthans, 2010; Luthans et al., 2015.) Written permission to use the Psychological Capital Questionnaire (PCQ-12, Avey et al., 2011) for research purposes was provided on January 10, 2016. Instructions for the PCQ-12 state, “These statements describe how you may think about yourself right now. Use the following scale to indicate your level of agreement or disagreement with each statement. Strongly disagree (1), Disagree (2), Somewhat disagree (3), Somewhat agree (4), Agree (5), Strongly agree (6).”

Sample items include “I feel confident in representing my work area in meetings with management” (efficacy) and “I always look on the bright side of things regarding my job” (optimism.)

The construct of signature strengths has been described by Peterson & Seligman (2004) using a classification of six core virtues as value domains (wisdom, courage, humanity, justice, temperance, transcendence) and 24 character strengths. Written permission to use the Values in Action (VIA) Classification of Character Strengths and Virtues (VIA-72) for research purposes was provided on August 4, 2016. Instructions for the VIA-72 include a list of 72 character strengths that were ordered by average raw scores ranging from “very much like me” (5) to “very much unlike me” (1). Sample character strength items include “creativity, honesty, or gratitude.” The VIA Survey, in its entirety, may not be published or distributed. The VIA-72 was selected to provide participants with a theoretical framework and glossary for their professional coaching work.

Outcome Measures Survey

At T2, after three months, all participants in group A and group B took a 16-item outcome measures survey. The open text box questions provided an opportunity for deeper analysis of the coaching intervention (Grant, 2104). Those four questions were (1) What specific benefits (if any) has the coaching had on your coachees performance outcomes (e.g., Key Performance Indicators, business goals)? (2) What specific benefits (if any) has the coaching had on your coachee’s behavioral outcomes (e.g., frequency, attitude, new actions)? (3) How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)? And (4) What are some examples of the performance and/or behavioral outcomes your coachee has attained in the last 3 months? The first two items replicate similar research by MacKie (2014). Items three and four replicate similar research (Grant, 2014; Spence, 2007) using Goal Attainment Scaling (GAS) as a coaching outcome. See Appendix B.

Data analysis of those open text boxes was conducted using established procedures for qualitative analysis. The text box data was exported onto excel spreadsheets and sorted using codes or categories into key themes (Creswell, 2014). Key words or phrases were initially used to code the text box results into key themes. When multiple themes were related based on descriptive analysis, they were combined into one main theme or category (Creswell, 2014). No attempt was made to limit the number of categories, use phrases *in situ*, or use pre-existing a priori codes based on related research.

The next 12 items assessed the participant's compliance to positive psychology coaching protocols. Participants in group A and group B completed the same survey to assess any between-group variability. This scale asked the coaches to self-assess their compliance to positive psychology coaching actions using a 5-point Likert scale from "not always" to "almost always" after each session. The question was "To what extent did you engage in activities that developed your coachee's strengths, after the last session?" Compliance to the coaching protocol was voluntary but encouraged via reminder emails. All participants received a short reminder email after 30 days and 60 days that stated, "Thank you for taking part in this research study. As a reminder, please participate as described in the instructions." At T2, summary ratings of total compliance to this coaching protocol scale were calculated for coaches in each group.

Validity

Threats to internal and external validity exist and may have impacted the quantitative and outcome measure survey results. One internal threat was a selection bias resulting from participants with a priori knowledge of positive psychology, or a stronger willingness to participate in a study incorporating positive psychology, than other participants. Another internal threat to validity was a maturation threat from coaches or coachees who changed roles during the 3-month experimental period, thus influencing the results. One external threat to validity was an interaction effect of selection and treatment that narrowly described the smaller number of participants who completed the study or prevented any generalizations to other populations.

The outcome measures survey included open text box subquestions that may further threaten credibility and trustworthiness. This study replicated the use of four open text box survey questions researched by Grant (2014) and MacKie (2014) that were thought to be credible questions. The trustworthiness of those questions was tested using post hoc analysis of the data into thematic categories and codes (Creswell, 2014), compared with similar findings from other researchers, and compared to the quantitative data for any possible relationships.

Assumptions

Several assumptions were included in this study. Those assumptions included:

- the professional coaches targeted as research participants would be willing to participate
- the professional coaches would complete the personality assessments and surveys honestly
- this quasi-experimental design would be appropriate for this research
- the inclusion criteria for this study would attract a statistically sufficient number of participants and exclude any other potential unqualified participants

- the confidential nature of professional coaching would not be affected in any negative way by those participants included in this research
- the number of participants would be large enough to maintain sufficient statistical power to detect the expected small effect size.
- that a significant percentage of those participants who began the study would complete the surveys after 3 months, at the end of the research study period.

Limitations

This study was quasi-experimental in design which limited the researcher's ability to conclude with certainty the results of the study. The study was conducted with the intention of gathering compelling information that could reject the null and support the alternative hypotheses. The outcomes were compared across the two coaching groups using descriptive statistics such as the average PsyCap score per group or the average percentage of compliance to positive psychology coaching protocol. Inferential statistics were used to test for significant differences between groups.

Factors other than positive psychology coaching may also have influenced the results. Those factors include environmental or social variables in other organizations or in other industries, variable organizational cultures, the global diversity of participants, the variability in coaching expertise, frequency of sessions within the study period, and the confidential nature of the coaching work. Another possible external factor included the newly imposed digital security requirements imposed by the European Commission on May 4, 2018, during this study. While these external factors are significant, this study minimized the impact of uncontrollable threats by leveraging a large, global sample population of experienced professional coaches who were actively working with a coachee and who were voluntarily willing to participate in this research.

Summary

Several researchers have called for additional research in applied psychology to explore specific questions such as "How can professional consultants and coaches foster well-being and optimal functioning?" (Luthans et al., 2015; Seligman, 2011). Chapter 3 described the methodology used to investigate the relationship between a positive psychology coaching protocol, applied by global professional coaches, on behavioral outcomes of leaders.

All the professional coaches invited to participate in this research (*n* = 5,570) who met the six inclusion criteria, received emailed invitations to a web-based portal where they signed their consent to participate. Participants self-selected into the Positive Psychology coaching group A, or the general coaching group B by answering the following question, "To what extent does your current coaching practice include these positive psychology practices?" Those participants in the upper half were assigned to group A and encouraged to implement PPC program content, including the AD-FIT^{TM} model. Those participants in the lower half were assigned into group B and were not encouraged to implement the PPC content, and they were not introduced to the AD-FIT^{TM} model. Those participants in group B received a digital coach training program that reviewed common coaching practices. The digital training for each group was designed to take about 60 minutes.

At T1 all participants were encouraged to take the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio & Luthans, 2011) and the Values in Action (VIA-72) Classification of Character Strengths and Virtues (Peterson & Seligman, 2004). At T2 all participants were encouraged to take the Psychological Capital Questionnaire (PCQ-12) and the Outcome Measures Survey. Those instruments were used at two different times to replicate a similar research design from Grant (2014) and Spence (2007). The Outcome Measures Survey at T2 also included open text box questions about effectiveness, performance, behavior, goal attainment and compliance to the PPC program protocols.

The goal of this chapter was to describe the research design, method and procedure of this research. Specifically, this chapter described how a quasi-experimental study examined the relationship between a positive psychology coaching (PPC) program and leader outcomes.

Chapter 4 describes the results of this research.

Chapter 4: Results

Results

Several analyses were conducted to examine the following three research hypotheses:

1. What is the relationship (if any) between participation in professional coaching and behavioral or performance outcomes of leaders?

2. What is the relationship (if any) between Positive Psychology Coaching (PPC) protocols and the behavioral or performance outcomes of leaders?

3. What is the relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral or performance outcomes of leaders?

Introduction

The practice of professional coaching is a significant investment in money, time and resources that has assumed behavioral or performance outcomes. A descriptive analysis was conducted to explore research question 1, the possible relationship between participation in global professional coaching and leader outcomes. The following descriptive analysis explores (1) demographic data and (2) the Goal Attainment Scale.

Demographic Data

The total number of participants in the Time 1 survey was 271, which represented 4.86% of the 5,570 invited participants. The number of participants was reduced by those who provided informed consent (*n* = 268) and was further reduced by those who met the 6 inclusion criteria to *n* = 220.

The gender distribution is described below in Figure 3 (*n* = 220). More than half (62.3%) of the participants were women. These results closely represent the gender distribution described by other surveys in the coaching industry (CoachSource, 2017; ICF, 2016).

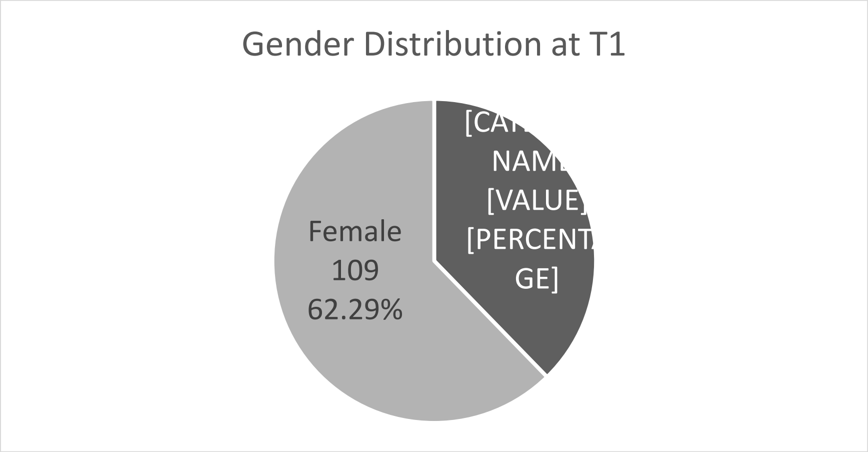

***Figure 3*.** **Gender Distribution**

The age distribution of participants is described below in Figure 4 *(n* = 175). Coaches in this study tended to be between the ages of 40 and 60 years old. The average age of these participants was 53.4 years. The largest group (34%) were in their fifties. The smallest group (4%) were in their thirties. One of the inclusion criteria was minimum age of 21. There were no participants in the age 21-29 year old cohort.

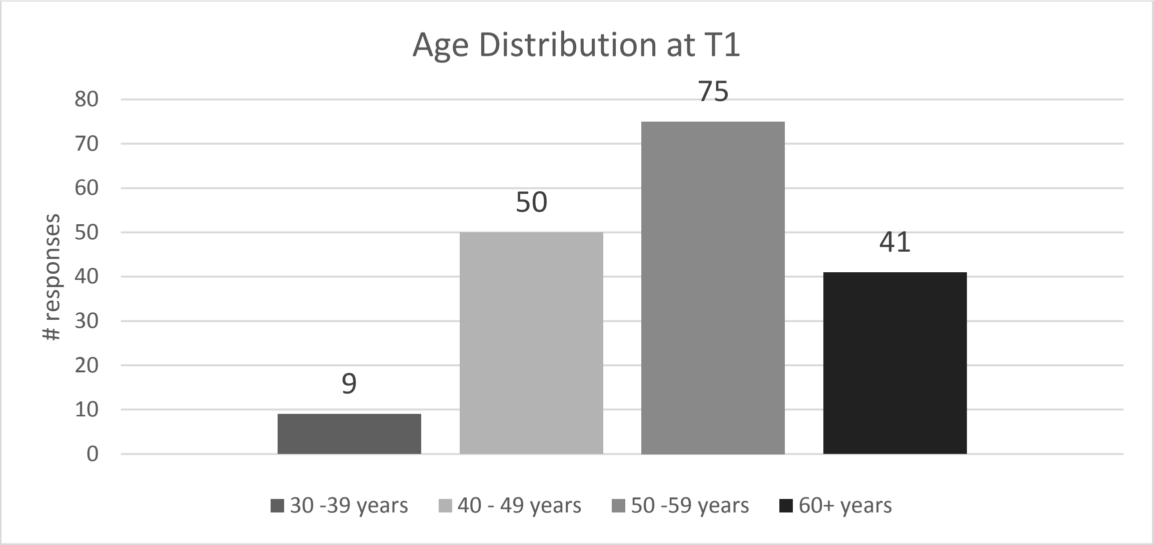

Figure 4. **Age Distribution by Cohorts**

Three sample populations were invited to participate. The participant group affiliations are described in Figure 5 (n = 172). The vast majority of participants (79%) are affiliated with the International Coaching Federation research panel. Invitations were sent using LinkedIn to approximately 3,000 level 1 connections of the researcher and 24 participants (14%) participated as a result of that affiliation.

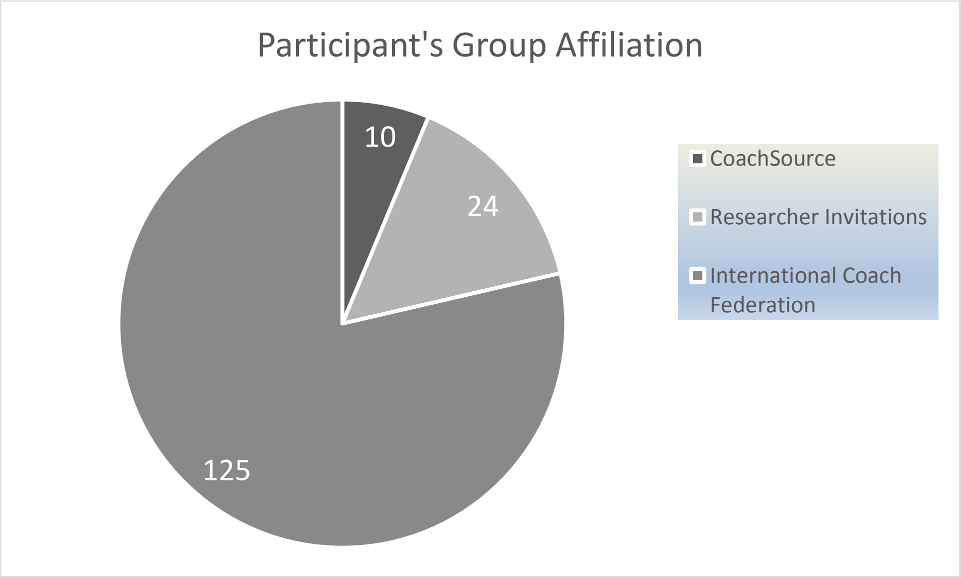

Figure 5. **Group Affiliation of the participants**

The geographic distribution of participants is described below in Figure 6 (*n* = 176).

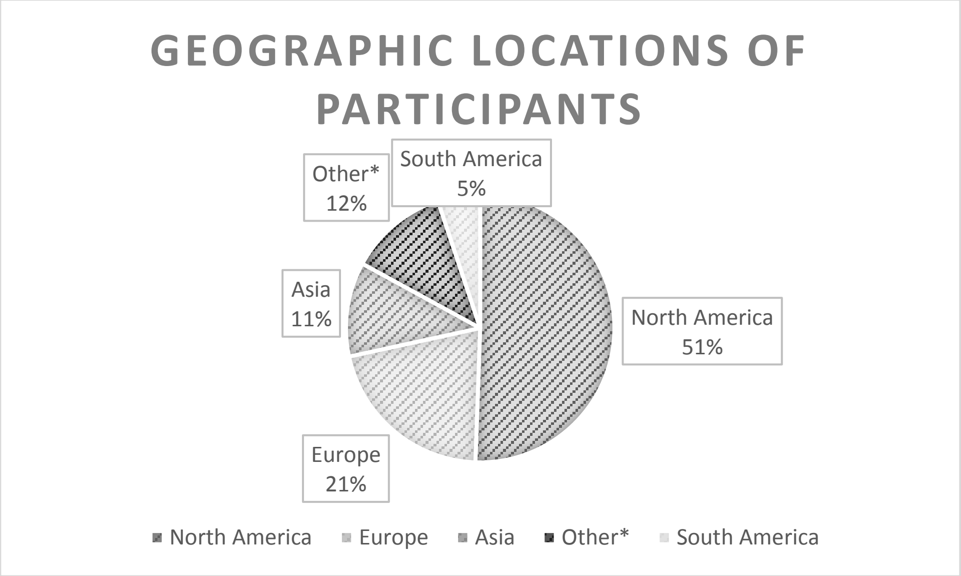

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Figure 6. **Primary Geographic Locations of Participants**

The other geographic locations (12%) included Africa, Middle East, Australia, or Oceania. As expected, North America (*n* = 89) and Europe (*n* =37) comprised the largest percentage of participants (72%). These demographic results suggest that this sample population reflects a broad global distribution and a high degree of cultural variability, similar to other professional coaching industry surveys (CoachSource, 2017; ICF, 2016).

Goal Attainment Scale

The null hypothesis of question #1 stated that there was no significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders. To explore that null hypothesis, the Goal Attainment Scale (GAS) question asked, "How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?" The vast majority (98%) of coaches gave ratings of 60% or higher which can be interpreted as moderate to highly successful in attaining their performance goals. The average result was 7.91 (*n* = 46) as described in Figure 7.

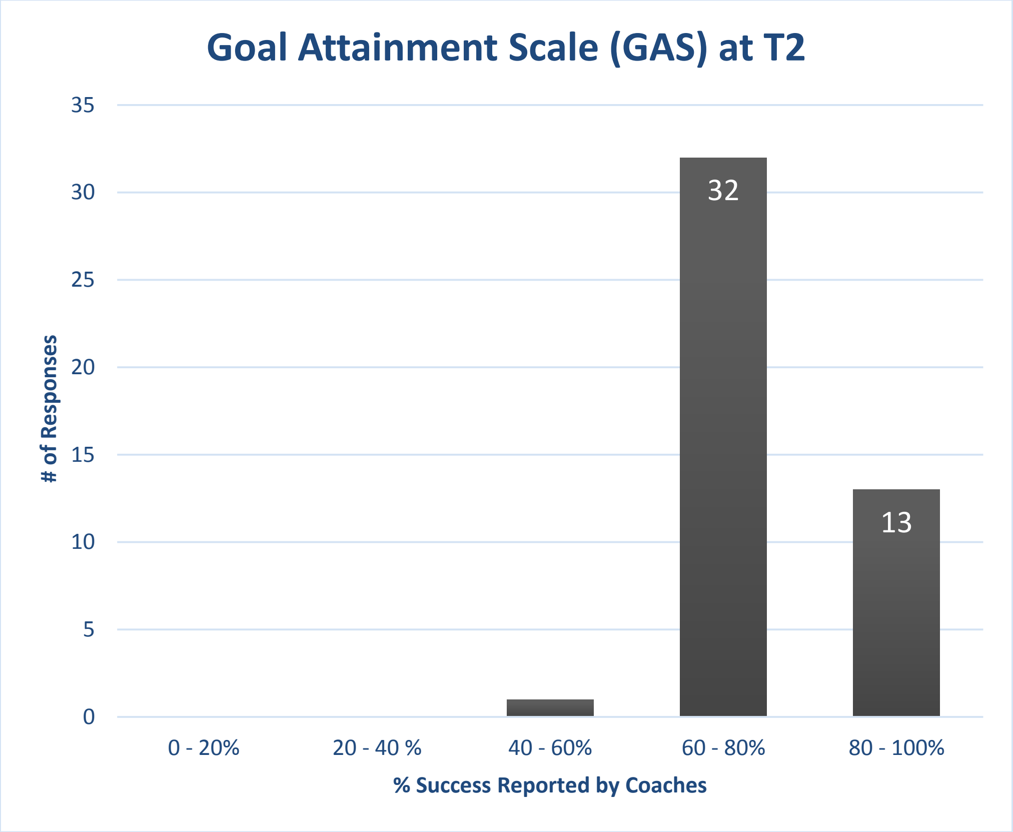

Figure 7. **Goal Attainment Scale (GAS) Reported by Coaches**

The null hypothesis for question #1 was rejected based on these Goal Attainment Scale results. Based on these results, there appears to be a strong relationship between goal attainment (e.g., performance improvement) due to coaching. Additional results that reject null hypothesis #1 are described below in Tables 5-7.

Positive Psychology Coaching (PPC) Protocols and Leader Outcomes

Positive psychology coaching is a new approach, and usage of the word “protocol” is minimal. A descriptive analysis was conducted to explore research question #2, about the possible relationship between positive psychology coaching protocols and leader outcomes. This discussion of results reviews the 1) adoption of validated personality assessments and 2) adoption of PPC protocols.

Adoption of Validated Assessments

Theoretical significance was assessed by encouraging all participants to complete two validated personality assessments that are frequently incorporated into positive psychology coaching protocols, the VIA-72 and the PsyCap-12. Assessments were also described as the first step in the AD-FIT™ coaching protocol to those participants in group A. The adoption of these two assessments is shown in Figures 8 and 9.

VIA-72 Assessment Results

When asked, "Have you completed the VIA-72 assessment for yourself and saved your top 5 signature strengths in your notes?" the results are depicted in the first two bars in Figure 8 below. In this study, 92% of the participants replied "yes", which included those coaches in group B who were not inclined to incorporate PPC in their practice. A discrepancy was observed when participants were asked, "Have you encouraged your coachee to complete the VIA-72 assessment and saved their top 5 signature strengths in your notes?" those results are in the last two bars in Figure 8. Of the 119 participants who responded, 76% said "no", which included those coaches in group B who were not inclined to incorporate PPC in their practice. That data revealed a discrepancy between those coaches who took the VIA-72 but did not encourage their coachees to take the VIA-72 assessment. Using a validated assessment could be a recommended protocol for coaches and coachees. The VIA-72 can be used to provide a glossary of strengths, nominate or select coaches, or to select evidence-based interventions by coaches.

Figure 8 shows adoption of the VIA-72 assessments completed by coaches (n = 122) and coachees (n = 119).

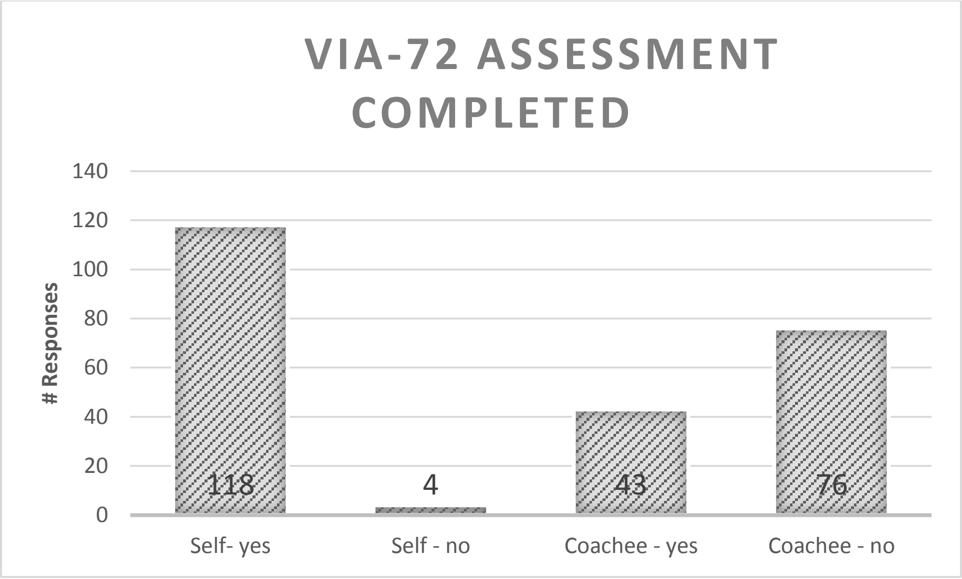

***Figure 8.* VIA-72 Assessment Completed by Coaches and Coachees**

The top 5 Signature Strengths from the VIA-72 assessment at T1 (*n* = 135) for all coaches and coachees are described in Table 3 below. The top five signature strengths in this sample population are self-regulation, humility, prudence, spirituality and teamwork. Signature strengths could be used for nominating coaches, or selecting coaches for coachees.   For instance, if a coach is high in self-regulation and humility, and a coachee needs to develop those signature strengths, then they could be matched together in an engagement.

Table 3. Summary of Top 5 Signature Strengths for All Participants

Ranking	Signature Strength	(average)
1.	Self-Regulation	19.38
2.	Humility	19.31
3.	Prudence	17.45
4.	Spirituality	17.32
5.	Teamwork	15.23

6.	Perseverance	14.39
7.	Forgiveness	13.94
8.	Leadership	13.38
9.	Bravery	13.13
10.	Social Intelligence	12.89
11.	Zest	12.73
12.	Humor	12.58
13.	Perspective	12.01
14.	Hope	11.63
15.	Love of Learning	11.50
16.	Kindness	11.02
17.	Judgment	10.66
18.	Appreciation of Beauty & Excellence	10.60
19.	Fairness	9.32
20.	Gratitude	8.90
21.	Creativity	8.64
22.	Love	8.43
23.	Curiosity	8.29
24.	Honesty	7.12

Psychological Capital Questionnaire (PCQ-12) Results

This study included two measures using the Psychological Capital Questionnaire (PCQ-12) assessment, as described in Table 4, for all participants. There was no significant change in

PsyCap, or the four sub-domains (e.g., hope, efficacy, resilience, optimism). That result was not surprising because digital training in PsyCap was not provided to either group. These results should have been expected because the training intervention was designed to introduce coaches in group A to PP protocols, including the AD-FIT^{TM} protocol, not change their PsyCap scores.

Table 4. PCQ-12 assessment changes over 90 days

Item/ construct	T1 average (*n* =)	T2 average (*n* =)	raw change	% change
1. Efficacy	5.60 (179)	5.53 (36)	-0.07	-0.01
2. Efficacy	5.34 (178)	5.31 (36)	-0.03	0.00
3. Efficacy	5.64 (178)	5.56 (36)	-0.08	-0.01
4. Hope	5.16 (178)	4.94 (36)	-0.22	-0.04
5. Hope	5.06 (177)	4.97 (36)	-0.09	-0.01
6. Hope	5.11 (177)	4.92 (36)	-0.19	-0.03
7. Hope	4.77 (175)	4.78 (36)	+0.01	0.00
8. Resilience	5.55 (177)	5.44 (36)	-0.11	-0.01
9. Resilience	4.79 (177)	4.64 (36)	-0.15	-0.03
10. Resilience	5.29 (177)	5.25 (36)	-0.04	0.00
11. Optimism	4.97 (177)	4.89 (36)	-0.08	-0.01
12. Optimism	5.33 (178)	5.22 (36)	-0.11	-0.02

These results indicate that PsyCap overall did not change significantly for these participants over 90 days. One limitation of this research design was that individual PsyCap scores could not be linked to individual coaches and the Goal Attainment Scores they provided. The limitations associated with aggregated data collection (e.g., the inability to link individuals with outcomes) limited the ability to test hypothesis #2 using these personality assessment scores.

Adoption of PPC Protocols

In order to assess the extent to which these participants incorporated positive psychology practices into their coaching, a sorting question was used to determine group A (e.g., higher adoption of positive psychology coaching practices) and group B (e.g., lower adoption of positive psychology coaching practices.) That sorting question included a definition of positive psychology and a definition of positive psychology coaching. The responses (*n* = 123) are described in Figure 9. The majority of respondents (75%) fall in the high adoption group (Group A).

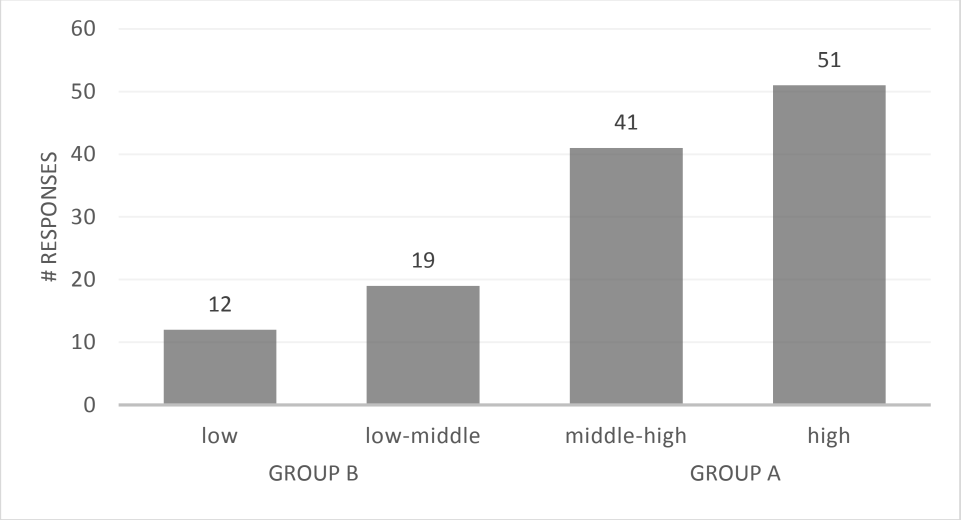

Figure 9. **Responses to the Sorting Question**

Incorporation of one PPC protocol, the AD-FIT^{TM} model into coaching at Time 2, (*n* = 42) is described in Figure 10. Participants in both Group A and Group B were asked, “To what extent did you incorporate one PPC protocol, the AD-FIT^{TM} model, into your coaching?” Only participants in Group A were provided access to the AD-FIT^{TM} model, so this flat distribution is not surprising. Group A participants may be included in the bars on the right side, and Group B participants may be included in the bars on the left side of Figure 10.

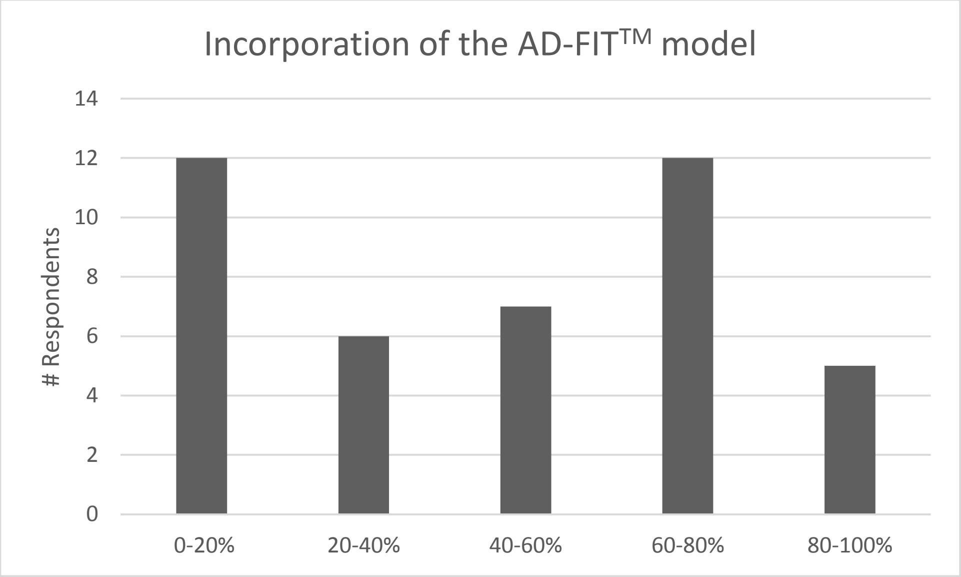

Figure 10. **Incorporation of the AD-FIT™ model into coaching**

To assess a potential relationship between positive psychology coaching protocols and leader outcomes, a between groups ANOVA assessment was conducted using SPSS. The Goal Attainment Scores (GAS) and compliance with the AD-FIT™ coaching protocol results are described in Figures 11 and 12.

Figure 11 shows the Goal Attainment Scores (GAS) and Compliance with the AD-FIT™ model (*n* = 41) for five differing levels of compliance. Low compliance means that the AD-FIT™ model was used less than 20% of the time. Results for groups with higher compliance rates are shown to the right in increments of 20% compliance. The expected outcome was that low compliance would yield low GAS scores and high compliance would yield high GAS scores, but those results did not appear as expected. ANOVA results confirm that there were no significant differences between groups (F(4,40) = 1.86, p = .13).

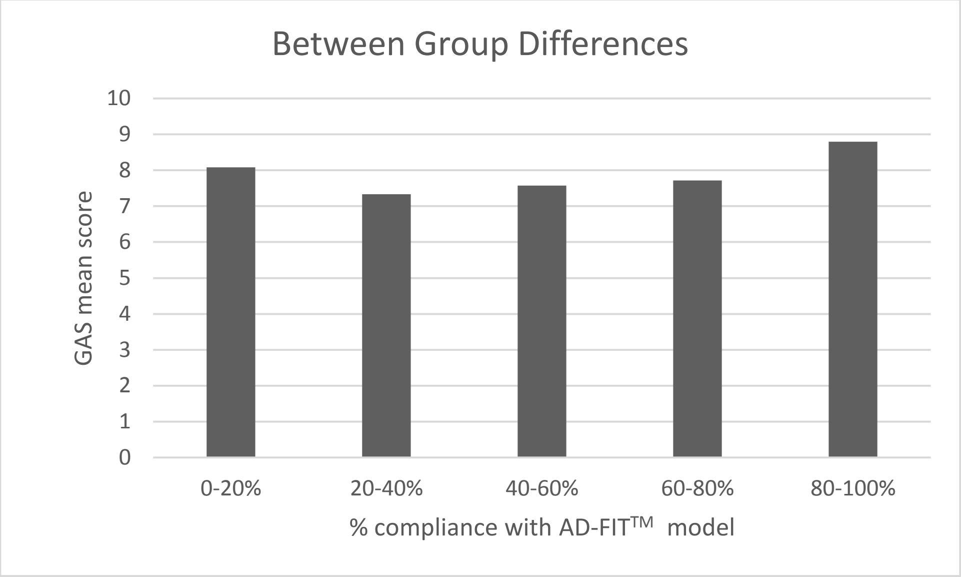

Figure 11**. GAS score and Compliance with the AD-FIT^{TM} model**

Figure 12 uses the same GAS data but aggregated the compliance data differently. Instead of five groups, Figure 12 shows only two groups: low compliance and high compliance. The average GAS score for the high compliance group was 8.05 (n = 16) and the average GAS for the low compliance group was 7.83 (n = 18). The difference between groups was 0.22. This difference was in the predicted direction but it was not statistically significant (F(1,33) = .38, p = .54).

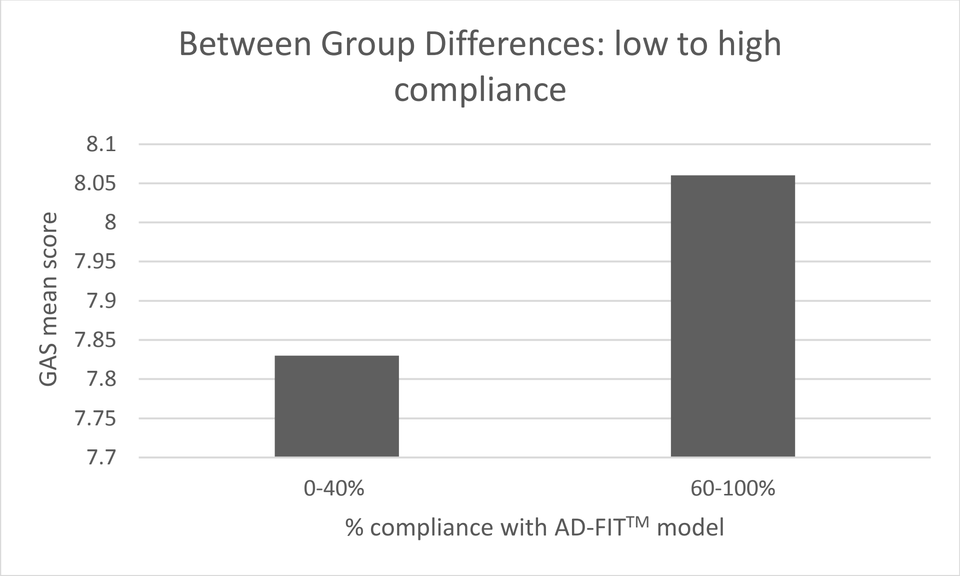

Figure 12. **Between Group Differences: GAS Score and Compliance**

The number of participants in the low compliance group B (*n* = 18) was similar to the number of participants in the high compliance group A (*n* = 16).

These results indicate that participants who adopted the positive psychology protocol of compliance with the AD-FIT^{TM} coaching process, also reported slightly higher goal attainment scores. These results do not reject the null hypothesis for question #2 that there is not a relationship between positive psychology protocols and leader outcomes. As expected, the difference between groups was small, 0.22 between high and low PP compliance groups. This difference was in the predicted direction but it was not statistically significant (F(1,33) = .38, p = .54). These results do not support hypothesis #2, which stated that a statistically significant relationship exists between positive psychology coaching protocols and leader outcomes. Further discussion on hypothesis #2 is below in Tables 7-9.

Compliance to Protocols and Leader Outcomes

Compliance to protocols is commonly used in other professions (e.g., healthcare, law, finance) as a measure of progress or engagement. The third research question explored the potential relationship between compliance to positive psychology coaching (PPC) protocols on the behavioral or performance outcomes of leaders. These results describe compliance to PPC protocols in three ways: 1) assessed compliance in digital training, 2) use of the AD-FIT^{TM} model in coaching, and 3) a series of compliance questions.

Compliance in Digital Training

In order to assess compliance in the digital content provided, participants in each group were given a list of "strongly recommended" and "recommended" digital content training. All participants were asked if they had completed the four "strongly recommended" content items. The participant's compliance in digital training for Group A and Group B is shown in Figure 13 (*n* = 74). The percentage of compliance in digital training was similar regardless of the training content. In Group A, the two bars on the left side, 81.63% stated "yes" and in Group B, the two bars on the right side, 84.00% stated "yes" they had completed the four "strongly recommended" training modules.

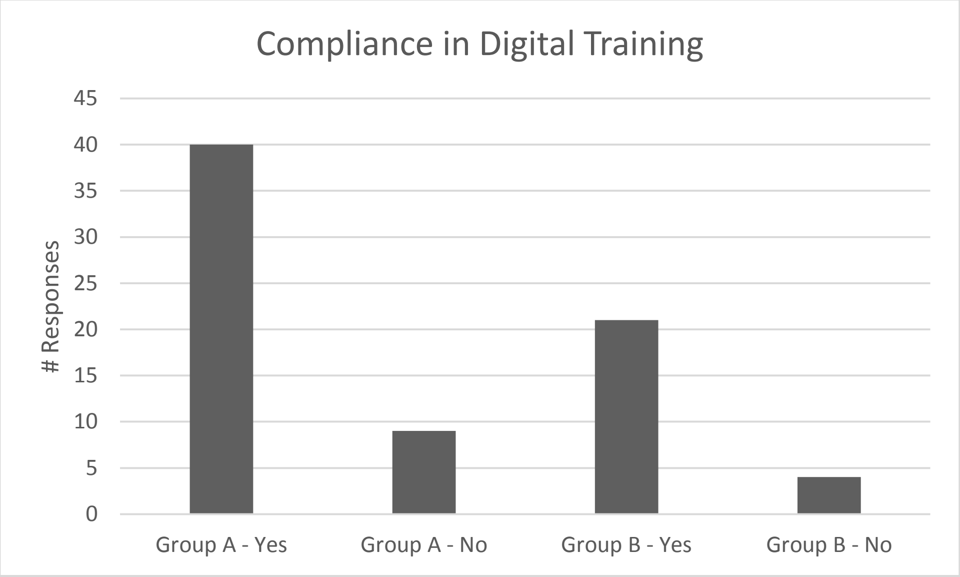

***Figure 13.* Compliance in digital training for Group A and Group B**

These results indicate that the majority of participants (81-84%) complied with the digital training treatment.

Use of the AD-FIT^{TM} Model in Coaching

As described above in Figures 10-12, the second measure of compliance to PPC protocols was usage of the AD-FIT^{TM} model in coaching. Those participants with higher compliance in the AD-FIT^{TM} coaching protocol (n = 16) reported slightly higher goal attainment scores than the participants with lower compliance (n = 18). These results were in the predicted direction but they were not statistically significant (F(1,33) = .38, p = .54).

Series of Compliance Questions

The third measure of compliance was a series of questions in the T2 survey. Those questions asked, “After the previous coaching session, to what extent did you reinforce your coachee’s strengths or meaningful outcome?” The results are relatively low on a 10 point scale, ranging from 3.60 to 3.98 over 6 coaching sessions. These results do not indicate evidence of a fatigue effect, over 6 sessions (n = 42).

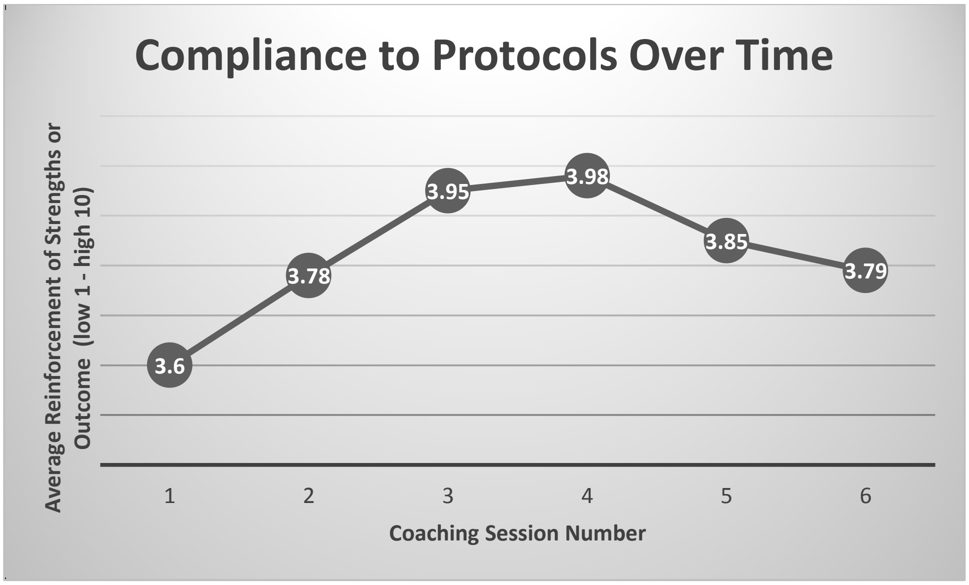

Figure 14. **Compliance to PPC Protocols Over Time**

Representative comments included "I always coach to the client's strengths" and "We explicitly identified strengths that were most relevant for his situation."

The results of this analysis reject the null hypothesis #3, that there is not a significant relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral or performance outcomes of leaders. To deepen understanding of that relationship, further analysis was conducted using open text box responses.

Open Text Box Results

The overall question guiding this study is: What is the relationship between positive psychology coaching (PPC) protocols, applied by professional coaches, on performance or behavioral outcomes of leaders? This study was further grounded by three open text box subquestions:

1. What specific benefits (if any) has the coaching had on your coachee's performance outcomes (e.g., Key Performance Indicators, business goals)?

2. What specific benefits (if any) has the coaching had on your coachee’s behavioral outcomes (e.g., frequency, attitude, new actions)?

3. What are some examples of the behavioral outcomes your coachee has attained in the last 3 months?

Benefit of Coaching on Performance Outcomes

The first open text box question asked, “What specific benefits (if any) has the coaching had on your coachee's performance outcomes (e.g., Key Performance Indicators, business goals, metrics)?” Open text box responses (*n*=100) from 42 participants were coded by themes and key terms into the following thematic categories as described in Table 5 (*n*=100 responses).

Table 5. Benefit of coaching on performance outcomes

Thematic Category (*n* = frequency)	Key Terms	Examples
Productivity (28)	Sales, goals, measures, cost savings, management, solutions	“He raised his team productivity by 20 percent in the last 3 months. She has taken steps to advance a project that had been on hold, moving nearer to completion.”
Focus (24)	Awareness, future, strategy, clarity	“She became focused and deliberate about possible next steps. He aligned strategy with the key stakeholders.”
Confidence (15)	Speaking up, self-esteem,	“He increased his self-confidence to speak up in meetings every

	sense of self, satisfaction	week. She now presents her own ideas directly to the CEO of the group.”
Relationships (13)	Listening, partnering, supporting others, accountability	“He improved ability to listen then provide better feedback to direct reports. She learned how to achieve goals with corporate sponsors/ partners/ advocates.”
Performance (13)	Reward, promotion, new role	“My coachee received her promotion faster than anticipated. She learned how to seek promotion for her next career step.”
Balance (7)	Energy, mindfulness, acceptance	“Client executed a plan to achieve work/life balance that included mindfulness activities. He developed better work/life balance with his loved ones.”

The results of this descriptive analysis support Hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and performance outcomes of leaders. The top two performance outcomes were increased productivity and focus.

Benefit of Coaching on Behavioral Outcomes

The second open text box question asked, “What specific benefits (if any) has the coaching had on your coachee’s behavioral outcomes (e.g., interactions, attitude, new actions, meeting frequency)?” Open text box responses (*n*=115) from 43 participants were coded by themes and key terms into the following thematic categories as described in Table 6 *(n* = 115 responses).

Table 6. Benefit of coaching on behavior outcomes

Thematic Category (*n* = frequency)	Key Terms	Examples
Relationships (30)	Trusting, empathy, mentors, stakeholders, sponsors	“Client is intentionally building relationships with other leaders across the organization. She defined key stakeholders and mentors.”
Effectiveness (24)	Delegation, efficiency, managing, action oriented	“She is shifting from the manager to leader role when leading meetings. He is intentionally managing up. She is slower to react and now pauses before responding.”
Confidence (17)	Executive presence, speaking up, asks	“She now states her beliefs in a straightforward and confident way. He is able to speak up more

	questions	than before.”
Clarity (16)	Motivation, options, clearer goals	“Increased self-awareness and defining at least four possible options. He now solicits more options to solve a problem.”
Attitude (13)	Positivity, mindset, optimism	“Positive attitude and greater ability to manage a growth mindset. He has a greater ability to manage his mindset.”
Stress (10)	Emotional intelligence, underperforming, self-regulation	“New thinking about people, their motives and needs. She is better at managing self-awareness and others.”
Communication (5)	Listening, summarizing	“Improved communication skills, including listening for others points of view.”

The results of this descriptive analysis also support Hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders. The top two behavioral outcomes were   improved relationships and effectiveness.

Examples of Behavioral Outcomes

The third open text box question asked, "What are some examples of performance or behavioral outcomes that your coachee has attained in the last 3 months, or 90 days?" Open text box responses (*n*=103) from 42 participants were coded by themes and key terms into the following thematic categories as described in Table 7 *(n* =103 responses).

Table 7. Examples of performance or behavioral outcomes

Thematic Category (*n* = frequency)	Key Terms	Examples
Self-Care (25)	Self-regulation, less stress, productivity, effectiveness, work-life balance	"She is now taking a walk each day at lunch time, and is leaving her cell phone off in the evening. He is more disciplined on key actions and avoids more distractions."
Rewards (23)	Promotion, sales, new role, new clients, new hours, expense reduction	"She has been promoted, restructured her organization, and improved sales. He has redesigned the work week to reflect new business demands."
Self-awareness (16)	Attitude, clarity,	"She has gained confidence and chooses to model positivity

	speaking up	when with others. He uses a small mirror to shift from negative thinking.”
Other-Awareness (11)	Listening, Emotional Intelligence, openness, curiosity	“He now takes time to care about other people or ask questions. She keeps a journal on a regular basis during the week.”
Managing others (11)	Relationships, conflict management, delegation, leadership	“She now addresses performance and behavioral issues of direct reports with a good outcome. He no longer tolerates excuses from low performers.”
Communication (7)	Feedback, supporting others, positivity	“He solicits feedback from others on a weekly frequency. She speaks about her team more positively with senior management.”
Future planning (6)	Strategic influence, decision making,	“She makes better decisions and shares optimism about our goals. He improved his personal life (his girlfriend's

	optimism	opinion) which made him feel happier making decisions.”
Professional development (4)	Networking, new team	“He joined a professional organization to network and develop relationships with others.”

The results of this descriptive analysis also support Hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders. The top two examples of performance or behavioral outcomes were increased self-care and rewards.

Summary of Results

These results support Hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders as described in Figure 7 and Tables 5-7. The results do not support Hypothesis #2, which stated that a statistically significant relationship exists between positive psychology coaching protocols and leader outcomes, as described in Figures 8-10 and Tables 3-4. Finally, the results support Hypothesis #3, which stated that compliance to positive psychology coaching (PPC) protocols can accelerate leader outcomes as described in Figures 10-14.

Discussion of these results follows in chapter 5.

Chapter 5: Discussion

Discussion

As described in previous chapters, the coaching "profession" is messy and crowded with (a) untrained individuals and (b) marketplace confusion (ICF, 2016). The main problem is that a gap exists between theory and practice because "professional coaching" lacks rigorous measurement, evidence-based protocols and standard processes. Positive psychology coaching lags even further behind psychology-at-large because the short history of positive psychology is only about 20 years old. The purpose of this quasi-experimental study was to assess the influence of a positive psychology coaching (PPC) program, applied by global professional coaches, on the perceived behavioral and performance outcomes of leaders.

This chapter discusses the significance of this research by reviewing each research question. Then this chapter discusses the significance of this research in three domains, theoretical, methodological and practical. For each of those domains, I will discuss the research findings, fit with the hypotheses and relationship with salient literature. Finally, this chapter discusses future recommendations and limitations of this study.

Research Questions

The purpose of this study was to examine the relationship of positive psychology coach (PPC) protocols on behavioral or performance outcomes of leaders. To evaluate the relationship between PPC and leader outcomes, three quantitative research questions were explored.

Research Question #1

The first research question explored the relationship (if any) of professional coaching on leader outcomes. Research question #1 asked, "What is the relationship (if any) between participation in professional coaching and performance or behavioral outcomes of leaders?" The null hypothesis stated "There is no significant relationship between participation in professional coaching and performance or behavioral outcomes of leaders." The hypothesis for question #1 stated, "There is a significant relationship between participation in professional coaching and performance or behavioral outcomes of leaders."

There are countless "professional coaches" who claim that a relationship exists between their marketed services and outcomes that leaders purchase. One measure of that possible relationship was to ask coaches about the success of their leader. In this research, most coaches stated that they thought their coachees were very successful. The Goal Attainment Scale (GAS) question asked, "How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?" The average result was 7.91 (n = 46). A second measure of that possible relationship was to ask coaches to describe performance and behavioral outcomes using open text box subquestions. As described in Tables 5-7, these coaches stated that the top two performance outcomes (n =100 responses) were "increased productivity and focus." The top two behavior outcomes (n =115 responses) were "improved relationships and effectiveness."

These results support hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders as described in Figure 7 and Tables 5-7. Future recommendations and limitations of this relationship are discussed throughout this chapter.

Research Question #2

The second research question explored the relationship (if any) of positive psychology protocols on leader outcomes. Research question #2 asked, "What is the relationship, if any, between Positive Psychology Coaching (PPC) protocols and the behavioral or performance outcomes of leaders?" The null hypothesis stated "There is no significant relationship between Positive Psychology Coaching (PPC) protocols and the behavioral or performance outcomes of leaders." The hypothesis for question #2 stated, "Participation in at least 60 minutes of digital training on positive psychology coaching (PPC) protocols using the AD-FIT^{TM} model, for coaches in group A, will have a more significant positive impact on the behavioral or performance outcomes of leaders, than for those leaders in group B."

This research study found that the participants with higher compliance in the AD-FIT^{TM} coaching protocol reported slightly higher goal attainment scores than the participants with lower compliance. The directionality of those results was encouraging but the sample size of low compliance (*n* = 16) and high compliance (*n* = 18) groups was small. The average GAS score for the high compliance group was 8.05 (n = 16) and the average GAS for the low compliance group was 7.83 (n = 18). The difference between those groups was only 0.22. This small difference was in the predicted direction but it was not statistically significant (F(1,33) = .38, p = .54). These results do not support hypothesis #2 that there was a statistically significant relationship between positive psychology protocols and leader outcomes.

There was some support in this research study for a relationship between positive psychology coaching protocols and leader outcomes because new protocols were adopted by the coaches in this sample. Adoption of validated assessment such as the VIA-72 personality assessments was completed by coaches (*n* = 122) and coachees (*n* = 119) and could become a protocol for PP coaching. Adoption of the AD-FIT^{TM} coaching protocol by coaches in Group A could become a protocol for PP coaching. Further research is needed to explore any possible correlations or causality between PPC protocols and leader outcomes. Future recommendations and limitations of this possible relationship are discussed throughout this chapter.

Research Question #3

The third research question asked "What is the relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral or performance outcomes of leaders?" The null hypothesis stated "There is no significant relationship between compliance to positive psychology coaching (PPC) protocols and the behavioral or performance outcomes of leaders." There were two hypotheses for question #3.

The first hypothesis stated, "Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher scores on the Goal Attainment Scales (GAS) and more benefits for their coachees than those with lower levels of compliance, or those in group B." That hypothesis was supported in this research. As stated above, the participants with higher compliance in the AD-FIT^{TM} coaching protocol reported slightly higher goal attainment scores than the participants with lower compliance. However, that difference was small (0.22) and not statistically significant ($F(1,33) = .38$, $p = .54$). Future recommendations and limitations of this possible relationship are discussed throughout this chapter.

The second hypothesis for question #3 stated "Coaches in group A that self-report a higher level of compliance to positive psychology coaching (PPC) protocols will report higher Psychological Capital (PsyCap) scores in hope, efficacy, resilience and optimism between T1 and T2 than those with lower levels of compliance, or those in group B." That hypothesis could not be tested in this research. As described in Table 4, the aggregated PsyCap scores did not change during this 3-month experimental period. Also, there was no training designed to increase PsyCap scores for either group A or group B. One limitation of this research was that individual PsyCap scores could not be linked to individual coaches, compliance levels or PPC protocols, therefore this hypothesis could not be tested.

There is some support in this study for a relationship between compliance with PPC protocols and leader outcomes. Compliance to the digital training was similar regardless of the training content. In Group A, 81.63% stated they had completed the four "strongly recommended" training modules and in Group B 84.00% stated that they were compliant. Compliance to one PPC protocol, the AD-FIT^{TM} model in coaching, was high for those in Group A (75%). Compliance to a series of questions asking "after the previous coaching session, to what extent did you reinforce your coachee's strengths or meaningful outcome?" do not indicate evidence of a fatigue effect, over 6 sessions (*n* = 42).

These results support hypothesis #3, which stated that compliance to positive psychology coaching (PPC) protocols can accelerate leader outcomes as described in Figures 10-14. Future recommendations and limitations of this possible relationship are discussed throughout this chapter.

Open Text Box Subquestions

To deepen understanding of the study, four open text box subquestions about effectiveness and goal attainment were included in the Outcome Measure Survey at T2. The first subquestion asked, "What specific benefits (if any) has the coaching had on your coachees performance outcomes (e.g., Key Performance Indicators, business goals)?" Professional coaches are often hired because there is an expectation that performance outcomes will be attained. However, performance-based outcomes are not always used for selection of coaches, or for tracking of milestones in a coaching engagement. For example, in this research, the most frequently described performance outcome was “productivity” (*n* = 28 of 100 responses.) Key terms related to productivity included “sales, goals, measures, cost savings, management, solutions.” Two examples of performance outcomes related to productivity include “He raised his team productivity by 20 percent in the last 3 months. She has taken steps to advance a project that had been on hold, moving nearer to completion.” One protocol that could be adopted from this research is to include performance-based outcomes when contracting coaching engagements and tracking milestones or progress during the engagement (Biswas-Deiner & Dean, 2007.)

In this research, the top two performance outcomes were “increased productivity and focus.” The remaining performance outcomes were “confidence, improved relationships, improved performance, and balance.” Another recommendation for further research is to include this list of performance-based outcomes in research designed to accelerate competitive advantage for leader outcomes. For instance, coach selection and milestones for performance-based milestones can become a standard protocol. Those milestones can be defined in the scope of work and action plans can be designed to achieve those performance outcomes. Competitive advantage could be increased if a coachee was not fully engaged in the coaching engagement, then they could receive feedback immediately, or be re-assigned to another coach or be removed from the performance-based coaching engagement (Underhill et al, 2007). As described in Tables 5-7, the results of this descriptive analysis support hypothesis #1, which stated that there is a significant relationship between participation in professional coaching and behavioral or performance outcomes of leaders.

The second open text box subquestion asked, “What specific benefits (if any) has the coaching had on your coachee’s behavioral outcomes (e.g., frequency, attitude, new actions)?”

Historically, professional coaches were hired to assess or improve inappropriate or unprofessional behaviors of leaders. That remedial investment proved to be wasteful, and now professional coaching investments focus on developing desired behavioral outcomes (Underhill et al, 2007). However, behavior-based outcomes are not always used for selection of coaches, or for tracking milestones in a coaching engagement. For example, in this research, the most frequent behavior outcome was “improved relationships (*n* = 30 of 115 responses.) The key words that described “improved relationships” included “trusting, empathy, mentors, stakeholders, or sponsors.” Two examples of behavior-based outcomes include “This client is intentionally building relationships with other leaders across the organization. She defined key stakeholders and mentors.” One protocol that could be adopted from this research is to include the list from Table 6 of behavior-based outcomes when contracting professional coaching services. Another recommended protocol is to exclude any behaviors that are beyond the scope of professional coaching (e.g., may require professional support from a therapist, or reassignment by human resource managers.) Not all leaders are receptive to behavior-based professional coaching.

In this research, the top two behavior-based outcomes were “improved relationships and effectiveness.” The remaining behavior outcomes were “increased confidence, clarity, improved attitude, reduced stress, and improved communication.” One recommendation for further research is to design PP interventions that accelerate those two behaviors or provide a competitive advantage for coachees. For instance, improved relationships may be accelerated by soliciting mentors, observing interactions, analyzing behavior-based video recordings.

The third open text box sub-question asked, “What are some examples of the performance and/or behavioral outcomes your coachee has attained in the last 3 months?” As described in Table 7, the top responses in this study were “improved self-care, achieved rewards, increased self-awareness, increased awareness of others, improved ability to manage others, improved communication skills, increased future planning, and professional development.” That list of outcomes could be used by coaches when marketing their services, and by buyers when contracting coaching services. Another recommendation for future research is to assess if competitive advantage increases when buyers and sellers adopt protocols such as lists of outcomes designed to reduce market confusion.

Those three open text box subquestions were further grounded by the Goal Attainment Scale (GAS) question, “How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?” In related professions such as healthcare, there is a trend toward single-item assessments, such as the Net Promoter Score to assess employee engagement or customer satisfaction. Further research on the application of the GAS question as a protocol may increase competitive advantage for coaches, or reduce market confusion for buyers of coaching services.

Theoretical Significance of This Research

This study explored the relationship of four theoretical constructs: Positive Psychology, Positive Organizational Behavior, Psychological Capital, and Character Strengths on leader behaviors. The theoretical significance of these four constructs was described in chapter 1, figure 1. Several researchers have indicated that these constructs may be associated with one another (Cameron, 2013; Grant, 2014; Luthans et al., 2015; Seligman, 2011). Signature strengths and the PERMA conceptual model, which reflects the five dimensions of (a) Positive emotions, (b) Engagement, (c) Relationships, (d) Meaning, and (e) Accomplishments (Seligman, 2011) can be used by positive psychology coaches to determine a coachee’s focus area, select possible interventions, or define a leader outcome (Foster & Auerbach, 2015). Signature strengths were included in this study to provide vocabulary for coaches, but application of signature strengths to PPC protocols was beyond the scope of this research. Further research could assess the signature strengths of coaches and match those coaches with leader outcomes, to provide a competitive advantage using person-activity-fit interventions (Lyubormisky et al., 2005). Character strength interventions have been aggregated by Niemiec (2017) and could become instrumental for PPC protocols. Future researchers could explore the relationship of PPIs and coaching protocols to leverage the signature strengths of coaches and accelerate leader outcomes.

Although specific relationships between these four theoretical constructs is beyond the scope of this research, the overall research question was supported in this research. That research question was, is there any relationship between positive psychology coaching (PPC) protocols on performance or behavioral outcomes of leaders? The short answer is that theoretical significance occurred in two ways: (1) utilization of assessments, and (2) compliance to protocols.

Utilization of Positive Psychology Assessments

Utilization of the PPC assessments revealed a discrepancy. As stated in chapter 4, in the Time 1 survey, all participants (*n* = 271) were provided a link to complete the VIA-72 assessment, then participants were asked two questions about usage of that assessment. Fewer than half of the participants answered the question about utilizing the VIA-72 assessment (*n* = 119). Only 36.13% (*n*= 43) replied “yes” they utilized the VIA-72 assessment with their coachees, and 63.87% (*n* = 76) replied “no” they did not use the VIA-72 assessment with their coachees. The discrepancy was made clear by the finding that the majority of these professional coaches utilized the VIA-72 assessment for themselves (82.0%), but not for their coachee (36%.) One recommendation for PPC protocols is to include a validated personality assessment, such as the VIA-72 or PSQ-12, to provide a competitive advantage for coaches. One outcome from incorporating PP assessments is that those coaches would have a glossary that describes signature strengths and a potential competitive advantage in the market. Another possible outcome that requires further research is to explore the relationship of PP assessment results and desired leader outcomes or PPIs designed to accelerate outcome attainment.

The second assessment utilized in this study was the PSQ-12, which was thought to provide a competitive advantage because other research indicated it is a dynamic construct. In business, for instance, the return on investment of 90-minute digital interventions on PsyCap activities has been estimated at 270% (Luthans et al., 2015.) That finding was a compelling reason for including the PSQ-12 assessment in this research. Sadly, PsyCap did not change in 90 days for the coaches who completed the PSQ-12 at T1 (*n* = 179) and T2 (*n* = 36). That result was not surprising because these coaches were not provided instruction in PsyCap PPIs. Future researchers using PsyCap could a) design digital interventions that replicate outcomes for hope, efficacy, resilience and optimism, b) include PsyCap as a protocol in PPC within an organization if tied to business outcomes, or c) not include PsyCap in future studies.

Compliance to Positive Psychology Protocols

In addition to exploring utilization of those four theoretical PP constructs, this study also assessed compliance of those constructs when applied by a globally diverse population of professional coaches. The descriptive data in this population mirrored similar research studies (CoachSource, 2017; ICF, 2016), so there is no reason to assume that this population lacked cultural heterogeneity. As described in chapter 4, descriptive analysis supported hypothesis #3, and indicated that there is a relationship between compliance to positive psychology coaching (PPC) protocols on the behavioral or performance outcomes of leaders. The top two performance outcomes (*n* =100 responses) were increased productivity and focus. The top two behavior outcomes (*n* =115 responses) were improved relationships and effectiveness. That finding indicates the need for further research to explore the nature and extent of compliance for desired outcome attainment. For instance, if a minimal compliance level is maintained by a coachee, then rewards or behavioral reinforcements could be provided. Two examples of rewarding compliance to a protocol include gamification applications such as Happify and SuperBetter (McGonigal, 2018). A third example is a new and emerging digital platform, called BetterUp, based on the theoretical construct of positive psychology, that has been used by hundreds of leaders (Damian Vaughn, PhD, in personal conversation, on July 17, 2017.)

In summary, specific causal relationships that describe the theoretical significance of relationships between these four constructs, Positive Psychology, Positive Organizational Behavior, Psychological Capital, and Character Strengths on leader behaviors, was beyond the scope of this research. One limitation in this quasi-experimental research design was that aggregated data cannot demonstrate relationships between use of assessments (e.g., the VIA-72 or PCQ-12) on individual leader outcomes. Another limitation of this correlational design is the inability to assume causality between variables such as high or low compliance with PPC protocols, or signature strengths, or PsyCap scores, with desired leader outcomes.

Methodological Significance of This Research

As described in chapters 1 and 2, many professional coaches do not adhere to a methodology or any evidence-based protocols (Biswas- Deiner, 2010; Foster & Auerbach, 2015; MacKie, 2014). Furthermore, the outcomes of those coaches are not always measured, and are not always associated with a theoretical framework (Frisch, 2013; Grant, 2014; Grant, Cavanaugh & Parker, 2010; Welch, Grossaint, Reid & Walker, 2014). The result is inconsistency.

The challenges of conducting research using globally distributed professional coaches were significant. Collecting a representative sample from the global estimated population of 53,500 coaches (ICF, 2016) was a challenge. One assumption of this study was that the professional coaches targeted as research participants would be willing to participate. Over 5,570 professional coaches from two global organizations, plus the researcher's contacts, were invited to participate in this research. However, only 54 participants completed the surveys at T1 and T2, which represented 0.97% of those who were invited to participate. The challenge of developing a sample population that reflects this overall population is a limitation of this study, and the correlational design does not assume causality between variables such as high or low compliance with PPC protocols or any outcomes. Despite the small sample size, all demographic data for age, gender, years of experience and geographic location described in chapter 4 mirrors similar research studies (CoachSource, 2017; ICF, 2016). These results suggest that this sample population reflects a broad global distribution and indicates a high degree of cultural variability (CoachSource, 2017; ICF, 2016.)

Another assumption of this study was that the six inclusion criteria for this study would attract a statistically sufficient number of participants and exclude any other potential unqualified participants. As described in chapter 1, one characteristic of the coaching profession is that virtually anyone may self-declare that they are a "professional coach." There is no way to determine how many potential participants read the invitation and chose not to participate, or why they dropped out after completing the T1 survey (*n* = 120 provided their email addresses but did not participate in the T2 survey). Further research with an intact group at one organization, or larger longitudinal studies with a survey exit question, would be useful to determine why participants excluded themselves from research.

The design of this research replicates similar research designs by Grant (2014) and MacKie (2014) that used a quasi-experimental study over 3 months. There are very few studies of professional coaches, as described in chapter 2. Data collection in this study was limited to coaches, not coachees, therefore actual leader outcomes were not directly assessed in this research. Another recommendation for future research is to include an Outcome Measures Survey with data from the leaders that could be used to assess their experience. One assumption of this study was that this quasi-experimental design was methodologically appropriate, and there is no reason to assume otherwise. The quasi-experimental design was chosen because it maintained the highest possible rigor in a real-world environment that would not tolerate a fully randomized design.

Another assumption of this study was that the confidential nature of professional coaching would not be affected in any negative way by those participants included in this research. Autonomy and confidentiality are critical in any coaching engagement, and are ethical requirements described by the International Coaching Federation and other similar credentialing associations. The detailed examples provided in chapter 4, Tables 5-7, indicate that these participants were able to maintain confidentiality in their coaching practices, while providing valuable outcomes for their coachees. One recommendation for a coaching protocol is to include the goal attainment scale (GAS) question as a protocol in any coaching engagement. Feedback leads to learning, and all leaders engaged in professional coaching benefit from outcome-based coaching (Gregory & Levy, 2015).

Another methodological assumption was that the number of participants would be large enough to maintain sufficient power to detect the expected small effect size. As described in chapter 4, the participants with higher compliance in the AD-FIT$^{\text{TM}}$ coaching protocol reported slightly higher goal attainment scores than the participants with lower compliance. The directionality of those results is encouraging but the sample size of low compliance (*n* = 16) and high compliance (*n* = 18) groups was small. The average GAS score for the high compliance group was 8.05 (n = 16) and the average GAS for the low compliance group was 7.83 (n = 18). The difference between those groups was 0.22. This small difference was in the predicted direction but it was not statistically significant (F(1,33) = .38, p = .54). These results do not support hypothesis #2 that there is a relationship between positive psychology protocols and leader outcomes. Further research is needed to explore correlations or causality between coaching protocols and leader outcomes.

Participants in this study were not provided with a priori lists of possible outcomes for executive coaching, business coaching, or performance coaching engagements. One reason for not providing those lists is because the researcher wanted to collect a broad range of performance or behavioral outcomes from the coaches. A second reason for not providing those lists is because the researcher did not want to bias the participants. One outcome from this research is to use lists of possible outcomes as a protocol for any outcome-based coaching engagement. The researcher has included lists of outcomes using the AD-FIT$^{\text{TM}}$ coaching protocol for decades, with hundreds of individual and team clients. There are no protocols for positive psychology coaching (Biswas-Deiner, 2010; Foster & Auerbach, 2015.) A specific recommendation for future researchers is to include a list of outcomes for professional coaching that may provide a competitive advantage.

This study was methodologically significant because it introduced and validated the use of an evidence-based coaching protocol, the AD-FIT^{TM} model. That model has been described as an approach to positive psychology coaching or consulting based upon (a) awareness of strengths and growth mindset, (b) defining a meaningful goal, (c) focus on the client's agenda, (d) interventions, (e) takeaways, and (f) percentage of compliance to this model. Further studies are needed to apply this model to larger populations of leaders in business, education or families, in any geography or any sector. Further studies in outcome-based coaching could explore the relationship of the AD-FIT^{TM} model to related protocols that provide competitive advantages, such as the Objective- Key Result (OKR) methodology adopted by countless technology companies (Doerr, 2018) or innovation models (Anthony, 2017).

Practical Significance of This Research

The practical significance of this study may best be described by using metaphors. Professional farmers assess the soil and market prospects, then plant and harvest crops. Professional architects design effective and efficient homes, then build then according to specifications. Professional physicians foster health and well-being, then treat and diagnose illness. What if professional coaches assessed client strengths and defined outcomes, then applied PP protocols to help leaders achieve goals with more efficiency or effectiveness?

The financial significance of this research may provide competitive advantages to coaches and leaders. The coach training industry is over $7B in annual revenue, with 115 accredited coach training programs (ICF, 2016). However, most "professional coaches" do not make more than $50,000 USD because the market is crowded, and potential buyers are confused (ICF, 2016: CoachSource 2018). Those aspiring coaches need a competitive advantage. And those potential buyers need clarity about their investments. One practical reason for conducting this research was to extend research on the return on investment (ROI) of a digital intervention on PsyCap activities for business leaders estimated at 270% (Luthans et al., 2015.) In contrast to financial, human and social capital, psychological capital can be developed, and those with higher PsyCap scores report higher sales, higher job satisfaction, higher engagement scores, and lower attrition (Friend et al., 2016). This study did not find a significant change in PsyCap from T1 to T2, which indicates an opportunity for other researchers to replicate the ROI findings mentioned above, with digital training designed to increase the four dimensions of PsyCap.

Business leaders in particular are becoming more outcome-based. Technology companies that have adopted the Objective-Key Result (OKR) methodology are redefining venture capitalism, risk, and explosive capital shifts (Doerr, 2018). The word “capital” has been adopted by organizational accountants who now quantify capital investments such as executive coaching (Leana & Rousseau, 2000). Protocols in business innovation are redefining products, processes, distribution and services (Anthony, 2017). If coaches or leaders are able to achieve desired outcomes more efficiently or effectively, then they will have a competitive advantage in business, education or families.

The practical significance of this research requires further research to validate protocols such as the AD-FIT^{TM} model. All professionals need protocols. Coaches need evidence-based tools. Positive psychology interventions (PPIs) are well validated. For instance, when people use their signature strengths in a new and different way each day, then write down three good things that happen each day, they describe significant increases in happiness when assessed at a six-month follow up (Seligman et al., 2005). Second, when people self-select a positive psychology intervention (PPI) they are less effective than when a PPI is randomly assigned (Silberman, 2007). There is strong evidence that the best leaders maximize the strengths in others, rather than any weaknesses or competency gaps (Kouzes & Posner, 2016). There is related evidence on the significance of short interventions in strength-based executive coaching (MacKie, 2014) on goal attainment and organizational change (Grant, 2014). In short, those professional coaches that adopt outcome-based coaching protocols may have a competitive advantage over other “professional coaches” that do not adopt coaching protocols.

One vision of future applied positive psychology includes a protocol framework for practitioners. This research suggests that protocols can include validated assessments of individual strengths, defining meaningful performance or behavioral outcomes, providing digital training, providing evidence-based interventions, designed to accelerate leader development. Communities of practitioners and researchers may reduce market confusion or distribute evidence-based best practices or provide certification programs.

Future research may determine if protocols, applied by other practitioners (e.g., coaches, consultants, managers and leaders) may be able to (1) accelerate leader development, (2) attract, develop and retain desired leaders in organizations, or (3) provide a competitive advantage.

Future Recommendations

The following list of recommendations summarizes points that have been previously stated and are compiled here for reference. These six recommendations are organized into two categories 1) recommendations for further research, and 2) recommendations for competitive advantage.

Recommendations for further research include 1) longitudinal research with more controls, 2) replication with larger sample populations, and 3) assessing the relationship of PP interventions and coaching protocols.

1. Longitudinal research with more controls (e.g., one organization, one coaching pool, PP protocols, defined outcomes). This design replicated similar research with a 3-month intervention period by Grant (2014) and MacKie (2014). Further research is recommended over longer periods of time, or with individual responses linked to leader outcomes, or linked to PP protocols, or linked to defined outcomes.

2. Replication with larger sample populations. There are very few studies with professional coaching, despite the large market impact of coaching, estimated at $7B USD (ICF, 2016). Further research with larger populations of leaders would strengthen research question #1, which explored the relationship of participation and leader outcomes. Further research could also explore the relationship of theoretical approaches, such as signature strengths, PsyCap, PERMA, or specific PPIs.

3. PP interventions and coaching protocols. Further research could assess the signature strengths of coaches and match those coaches with leader outcomes, to provide a competitive advantage using person-activity-fit interventions (Lyubormisky et al., 2005). Future researchers could also design PPIs and coaching protocols (e.g., to leverage the signature strengths of coaches, apply the AD-FIT^{TM} protocol, or focus on performance or behavioral outcomes) designed to accelerate leader outcomes.

In addition to those three recommendations for researchers, three more recommendations for competitive advantage include 4) adopting PPC protocols including assessments, 5) adopting PPC protocols for defining outcomes, and 6) adopting the phrase “coaching protocols” for selling and delivering services.

4. Adopting PPC protocols using validated personality assessments. Most “professional coaches” do not make more than $50,000 USD because the market is crowded, and potential

buyers are confused (ICF, 2016; CoachSource 2018). Those aspiring coaches need a competitive advantage. And those potential buyers need clarity about their investments. Validated assessments abound, and the VIA-72 and PSQ-12 are recommended assessments for any applications of PP coaching.

5. Adopting PPC protocols for defining behavioral or performance outcomes. Participants in this study were not provided with a priori lists of possible outcomes for coaching engagements. One reason for not providing those lists is because the researcher wanted to collect a broad range of performance or behavioral outcomes from the coaches. A second reason for not providing those lists is because the researcher did not want to bias the participants. One outcome from this research is to recommend using lists of possible outcomes as a protocol for any outcome-based coaching engagement. The researcher has included lists of outcomes using the AD-FIT^{TM} coaching protocol for decades, with hundreds of individual and team clients. There are no broadly adopted protocols for positive psychology coaching. One specific recommendation from this research is to adopt coaching protocols that provide a competitive advantage, such as defining meaningful outcomes when contracting coaches or tracking milestones.

6. Adopting the phrase “coaching protocols” for competitive advantage. The word “protocol” is not widely used in consulting or professional coaching. However, business leaders are becoming more outcome-based. Technology companies that have adopted the Objective-Key Result (OKR) methodology are redefining venture capitalism, risk, and explosive capital shifts (Doerr, 2018). The word “capital” has been adopted by organizational accountants who now quantify capital investments such as executive coaching (Leana & Rousseau, 2000). Protocols in business innovation are redefining products, processes, distribution and services (Anthony,

2017). The word “protocol” may be used when selling or delivering professional coaching services. If coaches or leaders are able to achieve desired outcomes more efficiently or effectively, then they will have a competitive advantage when working with leaders in business, education or families.

Limitations

Limitations of this research included 1) sample size, 2) generalizability, 3) inclusion criteria, and 4) methodological controls.

1. Sample size. Collecting a representative sample from the global estimated population of 53,500 coaches (ICF, 2016) was a challenge. Invitations to participate were sent to about 1% of that total population, which was hoped to be a representative sample size. However, only 4% of those invited to participate (*n* = 223) participated in the T1 survey. This sample size was further reduced by those 54 participants completed both the surveys at T1 and T2, which represents fewer than 0.97% of those who were invited to participate.

2. Generalizability. Another limitation of this research was the quasi-experimental design. The correlational design does not assume causality between variables such as high or low compliance with PPC protocols or any outcomes. This quasi-experimental design was chosen because it maintained the highest possible rigor in a real-world environment that would not tolerate a fully randomized design.

3. Inclusion criteria. One assumption of this study was that the six inclusion criteria for this study would attract a statistically sufficient number of participants and exclude any other potential unqualified participants. There was no way to determine how many potential participants read the invitation and chose not to participate, or why they dropped out after completing the T1 survey (*n* = 120 provided their email addresses but did not participate in the

T2 survey). Further research with an intact group at one organization, or larger longitudinal studies with a survey exit question, would be useful to determine why participants excluded themselves from research.

4. Methodological controls. One assumption of this study was that the confidential nature of professional coaching would not be affected in any negative way by those who chose to participate in this research. Autonomy and confidentiality are critical in any coaching engagement, and are ethical requirements described by the International Coaching Federation and other similar credentialing associations. The open text box responses provided in Tables 5-7 indicate that these participants were able to maintain confidentiality in their coaching practices, while providing valuable outcomes for their coachees.

Summary

Questions in organizational leadership have recently shifted from “What is wrong with this leader’s behavior?” to “How can professional coaches or consultants foster well-being for this leader?” This research indicates that theoretical constructs such as positive psychology, positive organizational behavior, psychological capital, and character strengths can be related to leader outcomes. The methodological significance of this quasi-experimental study with over 220 global professional coaches was small but encouraging for future researchers. The top two performance outcomes (*n* =100 responses) were increased productivity and focus. The top two behavior outcomes (*n* =115 responses) were improved relationships and effectiveness. The practical significance for coaches, individual leaders and organizations suggests a competitive advantage for those who implement PPC protocols.

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Appendix A: Invitation to Participate in Research

Invitation to Participate in Research

You are being invited to participate in a doctoral dissertation research study that examines positive psychology coaching. You are eligible to participate because of your affiliation as a professional coach with CoachSource or the International Coaching Federation research group.

Study Requirements

Participation in this study takes approximately two (2) hours over three (3) consecutive months. Participants will receive access to digital training in evidence-based positive psychology interventions and two surveys via email.

Participants will first complete one (1) hour of positive psychology coach training using a web based video sharing site. After completing the training, participants will complete two online surveys consisting of 84 questions rated on a Likert-type scale and 4 open-ended questions (approximately 30 minutes each, 60 minutes in total).

The online surveys should be completed within three months of the training. The surveys will be used to collect information on how professional coaches incorporate positive psychology interventions with their business leader clients.

Confidentiality

No personal identifying information (your name, email address, work location, or any other identifiable information) will be collected as a part of this study. Participants will not be directly or indirectly identified or associated with responses. Your anonymity is important to the study to improve the integrity of your responses. Information collected as a part of this study will be treated as confidential. Analysis will only be done on the aggregate survey group. No reporting will be created on an individually identifiable basis. The results of this study will be used solely for scholarly purposes.

Your participation in the research is voluntary. There is no consequence to you if you choose not to participate. The survey questions should not cause any more stress than you experience in everyday life. You may withdraw from the research at any time. You may also skip any survey question.

Participation

All participants will be eligible to be entered into a drawing for one of four $50 Amazon gift cards as incentive for responding to the surveys. To enter the drawing, you will need to indicate your interest when you register. Once the four winners have been chosen, all personal identification information will be destroyed by the research assistant.

To participate in this research, you MUST be a professional coach and meet the following five (5) criteria:

1) able to read and understand the English language,

2) in a coaching relationship with a business leader for at least the next three (3) months,

3) willing to participate in approximately 1 hour of free digital training in a positive psychology coach training (PPCT) protocol,

4) willing to participate in two digital surveys (approximately 30 minutes each, 60 minutes in total) at Time 1 and three months later at Time 2.

5) agree to abide by the professional and ethical standards defined by the International Coaching Federation.

If these criteria apply to you and you wish to participate, please click on the following link: [insert link here]

If you have any questions about this research please contact Doug Gray, PCC, at dxg8150@ego.thechicagoschool.edu or 704.995.6647.

If you have questions about your rights as a participant in this research, you may contact The Chicago School of Professional Psychology Institutional Review Board at 325 N. Wells St., Chicago, IL 60654   312-467-2343   irb@thechicagoschool.edu

Thank you for your consideration and expertise.

Appendix B: Outcome Measures Survey

Outcome Measures Survey at Time 2 (T2)

Part 1: Outcome measures

Directions: Please answer each of the following questions with 2-3 detailed examples.

1. What specific benefits (if any) has the coaching had on your coachees performance outcomes (e.g., Key Performance Indicators, business goals)?

2. What specific benefits (if any) has the coaching had on your coachee's behavioral outcomes (e.g., frequency, attitude, new actions)?

3. How successful has your coachee been in attaining meaningful performance goals thus far, on a scale from 1 (low) to 10 (high)?

4. What are some examples of the performance or behavioral outcomes your coachee has attained in the last 3 months?

Part 2: Compliance to Coaching Protocols

Research participants in Group A were encouraged to view the digital training introduction to Positive Psychology coaching (approximately 60 minutes) and apply the AD-FIT^{TM} model to their coaching work for three months.

Research participants in Group B were not encouraged to apply the Positive Psychology coaching training and were not introduced to the AD-FIT^{TM} model. However, participants in group B were provided similar digital training (approximately 60 minutes) reviewing standard coaching procures.

All participants were encouraged to: (a) Complete the Values in Action (VIA-72) assessment to determine their top signature strengths (approximately 30 minutes), (b) Complete the Psychological Capital (PSQ-12) assessment to determine their PsyCap score (approximately 15 minutes), and (c) apply the group A or group B coach training protocol to their coachee for at least three months.

Directions: Please answer the following twelve (12) questions with 2-3 details. To answer the first seven (7) questions, use a scale from 1 (0-20%), 2 (20-40%), 3 (40-60%), 4 (60-80%), 5 (80-100%), 6 (not sure or not applicable).

1. To what extent did you adhere to the Positive Psychology Coaching (PPC) protocols (described above) in your professional coaching with your coachee for this study?
2. To what extent did you engage in activities that developed your coachee's strengths, after the first session?
3. To what extent did you engage in activities that developed your coachee's strengths, after the second session?
4. To what extent did you engage in activities that developed your coachee's strengths, after the third session?
5. To what extent did you engage in activities that developed your coachee's strengths, after the fourth session?
6. To what extent did you engage in activities that developed your coachee's strengths, after the fifth session?
7. To what extent did you engage in activities that developed your coachee's strengths, after the sixth session?

8. Using the Values in Action (VIA-72) assessment data and list below, what are your top five signature strengths?
9. Using the Values in Action (VIA-72) assessment data and list below, what are your coachee's top five signature strengths?

Curiosity and interest

Love of learning

Judgment, critical thinking, open-mindedness

Valor

Industry, perseverance

Integrity, honesty, authenticity

Zest, enthusiasm

Intimacy, reciprocal attachment

Kindness, generosity, nurturance

Social intelligence, personal intelligence, emotional intelligence

Citizenship, duty, loyalty, teamwork

Equity, fairness

Leadership

Forgiveness, mercy

Modesty, humility

Prudence, caution

Self-control, self-regulation

Awe, wonder, appreciation of beauty and excellence

Gratitude

Hope, optimism, future-mindedness

Playfulness, humor

Spirituality, sense of purpose, faith, religiousness

10. Based on the Psychological Capital (PSQ-12) assessment data, what were your scores at T1 __________ and at T2 __________?

11. Based on the Psychological Capital (PSQ-12) assessment data, what were your coachees scores at T1 __________ and at T2 __________?

12. What are the top 3 business or performance outcome goals for your coachee?

    a. ____

    b. ____

    c. ____

Appendix C: Positive Psychology Coaching Protocol

Positive Psychology Coaching Protocol: The AD-FIT ^{TM} Model

Assess the client's top 3 signature strengths using the VIA-72

____

____

____

Assess Mindset: To what extent is the client willing to change?

(Fixed mindset 0-20%, 20-40%, 60-80%, 80-100% growth mindset.)

Define a meaningful goal or outcome for the client. (Ask, "What is a measurable performance or behavioral outcome goal for you?")

Focus on the client's agenda. (Ask, "What are you a little concerned about today?")

Intervention or possible action for client. (From the coach's library of evidence-based options, ask "Have you considered…")

Takeaways or next step for client. (Ask, "What are you taking away from this session that you may do before our next session to model accountability or change?")

% of compliance to this model? (Ask, “To what extent have you complied with this model since our last session? Lower compliance 0-20%, 20-40%, 60-80%, 80-100% higher compliance.)