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**The Impact of Mindfulness Based Interventions
on the
Psychological Capital of Leaders**

**A Research Project
Presented to the Faculty of
The George L. Graziadio
School of Business and Management
Pepperdine University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Organization Development**

**by
Marci B. Rinkoff
August 2017**

This research project, completed by

MARCI B. RINKOFF

under the guidance of the Faculty Committee and approved by its members, has been submitted to and accepted by the faculty of The George L. Graziadio School of Business and Management in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE
IN ORGANIZATION DEVELOPMENT

Date: August 2017

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Abstract

This mixed method study examined the relative impact of virtual and classroom-based mindfulness training on the psychological capital (PsyCap) of leaders. The control group (n = 9) and the experimental group (n = 15) participated in an 8-week program and completed pre and post-assessments PsyCap levels. A virtual program was delivered to the control group. A classroom based program was delivered to the experimental group. The experimental group exhibited significant improvement in all four psychological traits which make up the PsyCap construct: efficacy, hope, resilience and optimism. The control group exhibited significant improvement only in self-reported hope scores. The qualitative results from the experimental group were encouraging, emphasizing key learnings from the classroom experience which made an impact at the personal and professional levels. Continued research in this area is anticipated to understand more antecedents to increasing PsyCap levels, leadership effectiveness and benefits of mindfulness based interventions, and enable organizations to better support leaders with mindfulness resources in the workplace.

Keywords: Leadership Effectiveness, Mindfulness Based Interventions, PsyCap, Wellness in the Workplace

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Chapter 1

Introduction

Over the past decade, mindfulness has received a good deal of attention in the business world. As in yoga, the increasing business of selling mindfulness programs (i.e. “Search Inside Yourself”), may dilute the original essence of the practice itself, causing confusion around the meaning of mindfulness, or what Hyland (2015) refers to as the “McMindfulness” effect.

While mindfulness practices date back to Buddhism traditions over 2500 years ago (Kabat-Zinn, 2003), modern techniques of mindfulness began taking shape in the early 1980’s (Rapgay & Bystrisky, 2009) with the development of a ten-week program entitled as MBSR (mindfulness based stress reduction) (Kabat-Zinn, 1982). MBSR was a key factor in the 1980’s which brought mindfulness practices into the field of psychology, medicine and in secular practices today. Interest in the topic of mindfulness has continued to grow exponentially (Cullen, 2011). In 2015, there were over 4,000 scholarly articles on the topic of mindfulness across multiple areas and fields including psychology, the military, and management (Good et al., 2015).

Since the conception of MBSR, other MBIs have been developed and adapted from the original MBSR program (Cullen, 2011). MBI research has sought to understand its impact on a wide variety of physiological and mental health issues among patient populations, well beyond the original focus Dr. Zinn had in helping patients manage stress. These MBI studies have looked at areas such as preventing relapse among those with depression (Batink, Peeters, Geschwind, van Os, & Wichers, 2013; Kuyken et al., 2004), intimate relationships (Wachs &

Cordova, 2007), pain reduction (Reiner, Tibi, & Lipsitz, 2013), and regulating emotions (Quaglia, Goodman, & Brown, 2014).

The broad reaching benefits of mindfulness, in the foreground of the growing levels of stress in the workplace, has escalated MBIs into the corporate arena. Today, major organizations such as Google, Aetna, Blackrock, Ford Motor Company, Goldman Sachs and the U.S. Army, have developed their own version of MBIs, as a means to enhance performance and well-being (Jha et al., 2015). The MBIs used in organizations are more abbreviated versions of MBSR, yet typically include similar components such as neuroscience based education, body-centered modalities such as yoga, breathing techniques, and meditation. Some MBIs are more structured in nature, such as Google's "Search Inside Yourself" program, while others may simply offer a meditation room yet still label it as a "mindfulness-based program."

Alongside the growing attention of adopting MBIs in business, over the past ten years there has been an escalation in mindfulness research conducted in a workplace setting vs. a laboratory. Results are validating the hypothesis that MBIs have positive benefits along the work domains of performance and well-being, such as stress, yet very little exists on the impact mindfulness has on leaders (Good et al., 2015).

As leaders are faced with more complexity in today's global business environment, and are required to do more with less resources, it is likely that organizations will continue to look at progressive modalities for increasing performance and efficacy of such approaches. Thus, it is likely that MBIs will continue to become more adopted for addressing leadership stress and as a means for leadership development.

Roche, Haar, and Luthans (2014) took one step at closing the gap of research on mindfulness among the leadership population. Recognizing that positivity can benefit one's

ability to manage stress and promote well-being, they examined the relationship between mindfulness and positive aspects of leaders. The aspects specifically studied were levels of hope, resiliency, optimism, and efficacy. These four aspects compose a psychological construct known as Psychological Capital or PsyCap for short (Luthans, Avolio, Avey, & Norman, 2007). Findings indicated that mindfulness and PsyCap are significant predictors for leaders who are effective in combatting stress and that those with higher levels of PsyCap are likely to gain more benefit from a mindfulness program than those with lower levels of PsyCap.

Purpose of the Study

The purpose of the current study is to determine the impact of virtual and classroom-based MBIs on leaders and their PsyCap scores. The study will further explore the personal and professional lessons derived from a classroom-based MBI.

PsyCap was the chosen construct because it is considered as a set of psychological states of mind that are flexible, thus open for development (Luthans, 2007) and has been shown to have a direct relationship with performance (Vogelgesang, Clapp-Smith, & Osland, 2014). Thus far, there have been no empirical studies linking virtual MBIs or classroom-based MBIs to PsyCap for leaders. This study is designed to understand the relationship between these two modalities and perhaps serve as a reference for organizations considering an MBI as a means for developing leaders. Thus, this study addresses the question: *What is the impact of mindfulness based interventions on the PsyCap of leaders?*

To date, little is known about organizational antecedents to aspects of mindfulness in the workplace (Reb, Narayanan, & Ho, 2013), yet the research is rapidly growing across disciplines and can be applied to the field of management (Good et al., 2015). MBIs applied in healthcare studies have shown wide-reaching benefits in clinical populations that could be translated over to

the employee population. Patients who have participated in MBI health-related studies have indicated improvement in areas such as anxiety symptoms (Evans et al., 2008), post-traumatic stress disorder (King et al., 2013), and emotional reactivity (Arch & Craske, 2006). A meta-view of the data suggests that leaders in a workplace setting could benefit from MBIs as well. When leaders have more resilience to stress factors and greater ability to maintain focus, they can experience stronger levels of performance in day to day tasks (Dane, 2011) and maintain greater levels of job satisfaction (Hülshager, Alberts, Feinholdt, & Lang, 2013). Less reactivity, aligned with high levels of positive psychological traits has a contagion effect on those they manage (Story, Youssef, Luthans, Barbuto, & Bovaird, 2013), which can ultimately lead to increased employee engagement.

While the amount of research conducted on MBIs in workplace settings is relatively young, there is some data providing evidence that MBIs can offer benefits to non-clinical populations. For example, soldiers who underwent an 8-week MBI had shown increased levels of attention, a trait which is critical for the roles they serve (Jha et al., 2015). In Japan, a group of employees from an insurance company participated in a 12-week MBI and showed reduced levels of stress (Wolever et al., 2012). In the Netherlands, service employees engaged in a five-day program which indicated that mindfulness can serve as a means for reducing emotional exhaustion and increasing job satisfaction (Hülshager et al., 2013). Given that leadership effectiveness is considered the foundation for organizational performance and growth (Amagoh, 2009), it seems obvious that there is a need to focus further on this topic in terms of how it relates to leaders. These findings indicate that there is a likelihood that an MBI would enhance a leader's ability to be more effective.

Study Setting and Population

The experimental portion of the study was conducted at the Center for Volunteer and Nonprofit Leadership, a nonprofit organization located in San Rafael, California. This member-based organization was established 50 years ago, to serve as a resource for local county nonprofits. Its mission is to enable nonprofits and volunteerism by strengthening leadership, encouraging innovation and empowering individuals in the community. Members of this organization are nonprofit leaders who hold a variety of positions from managing specific functions to executive director level responsibilities. Like many nonprofit leaders, they are experiencing serious financial and capacity challenges, due to the residual effects of the last recession. Leaders are competing for the same donors, and for similar leadership talent. Given the limited resources these leaders have, the members of this organization appear to be an ideal population group to study. Participants are full-time working adults over the age of 21 who have at least one direct report and one year of leadership experience. There are 15 members of the experimental group which participated in the classroom-based MBI and nine members in the active control group which participated in a virtual MBI.

Definitions

For the purpose of this study, the following terms are defined:

Meditation. There are various schools of thought regarding the definition and approach of meditation. Meditation, for the context of this study, is a practice, or activity which “aims to still the fluctuations of the mind” (Baerentsen et al., 2010, p. 58) and is one means of many for achieving a state of mindfulness.

Mindfulness. Mindfulness describes a state of mind when an individual has “awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally

to the unfolding of experience moment by moment,” (Kabat-Zinn, 2003, p. 145). Meditation, as aforementioned of one approach to enabling mindfulness but studies contend that “mindfulness may be influenced not only by personal factors, such as mindfulness practice or genetic factors, but also by environmental or situational variables,” (Reb et al., 2013, p. 113). Bishop and colleagues (2004) (et al., 2004) defined mindfulness as having two components: 1) Bringing awareness through attention of the current moment by noticing thoughts, feelings and sensations, and 2) Taking a stance of acceptance of that moment without judgement or any expectations. Simply put, it means paying attention in a particular way.

Mindfulness-based interventions (MBIs). Mindfulness-based interventions (MBIs) are training programs designed to help individuals develop a state of mindfulness. The MBIs examined in this study vary in length from five days to ten and include a variety of components such as meditation, breathing exercises, yoga, and classroom-based education on neuroscience. There is no one universally standardized MBI.

Mindfulness Attention Awareness Scale (MAAS). The MAAS (Mindful Attention Awareness Scale) is a self-reporting psychometric designed to measure individual differences in the frequency of mindful states over time (Brown & Ryan, 2003). This 15-item tool was created, with the intent to be used to validate the development of mindfulness over a period of time and was first introduced in a study that indicated a correlation of mindfulness with declines in mood disturbance and stress among cancer patients. Brown and Ryan (2003) explain that the MAAS is a “correlational, quasi-experimental, and laboratory studies have shown that the MAAS taps a unique quality of consciousness that is related to, and predictive of, a variety of self-regulation and well-being constructs,” (p. 822)

Psychological Capital (PsyCap). A comprehensive definition of PsyCap is:

An individual's positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success. (Luthans et al., 2007).

Implications of this Study

Given the aging workforce, U.S. companies are facing higher levels of spending on wellness programs for their employees. On a positive note, studies have indicated that wellness programs can provide considerable savings, potentially yielding \$6 in health care savings for every dollar invested (Berry, Mirabito, & Baun, 2010). For example, Johnson & Johnson reported that wellness programs have saved the company at least \$250 million on health care costs from 2002 to 2012. In six years, MD Anderson's wellness program indicated an 80% decline in lost work days, resulting in a 50% decline in insurance premiums. The current study attempts to identify the value of one particular wellness intervention known as Mindfulness Based Interventions (MBIs), and how it can benefit leaders in the workplace. This study may have practical applications for organizational leaders who would like to identify some method of quantifying the value of an MBI through assessment of psychological capital among participants before and after an MBI.

Leaders with high levels of psychological capital are more likely to "weather through the storm of the type of dynamic, global environmental contexts confronting most organizations today better than their counterparts with lower PsyCap," (Luthans, 2007, p. 568). Mindfulness training has also shown parallel outcomes of developing aspects of resilience in the workplace (Geller, Krasner & Korones, 2010; Hulshinger, Alberts, Feinholdt, & Lang, 2012). This study is designed to identify the relationships of these two resources: MBIs and levels of PsyCap.

The study of mindfulness and its impact on workplace functioning, specifically psychological capital, is relatively new but growing. Thus far, there is only anecdotal information on the impact MBIs have on leadership effectiveness, thus a lack of any empirical data is available (Good et al., 2015). This study also intends to fill in this gap with some quantitative data and qualitative data.

Chapter 2:

Literature Review

This chapter reviews several areas of existing literature and research to support the study. First, the chapter examines existing literature of mindfulness studies conducted on health-related topics. Second, the chapter addresses literature on virtual mindfulness training. The third section addresses literature on mindfulness in the workplace, specifically in the areas of performance, wellbeing, and leadership. Fourth, the chapter reviews literature on PsyCap in relation to leadership. Finally, the chapter addresses challenges of the research along with conclusions from the intersection of these three topic areas. Definitions of terms relevant to each part of the chapter are dispersed respective to the area of relevance.

This chapter supports the topic that mindfulness influences leaders, and the research question: What is the impact of MBIs on the Psychological Capital of Leaders? This chapter also looks further into the workplace domain of well-being by examining PsyCap among leaders and addresses the question: Do MBIs impact psychological capital of leaders?

Mindfulness

Mindfulness is a concept derived from Buddhist practices and is described in the psychological literature as “awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment,” (Kabat-Zinn, 2003, p. 145). It is important to make the distinction between mindfulness and meditation to reduce misconceptions in the workplace and reduce growing confusion of the term (Dane, 2011). The term mindfulness has been used interchangeably with meditation, and Buddhism. Additionally, mindfulness has been substituted for awareness, concentration, and contemplations (Cullen, 2011). Mindfulness is a psychological state, the emergence of which

does not require meditation (Brown & Ryan, 2003). Mindfulness can be broken down into five different attributes (Baer, Smith, Hopkins, & Toney, 2001) which are:

1) the observation of the present and external environment, 2) the ability to describe that environment with words, 3) the ability to act with awareness of that environment, 4) to not judge the environment, and 5) to not react thoughtlessly to that environment (non-reactivity), (p. 27).

According to the definition offered by Bishop and colleagues (2004), mindfulness has two main elements: paying attention to one's present moment experience as it is happening and relating to this experience with a curious, open, accepting stance. Succinctly put, mindfulness is a state of awareness (Gerstner & Day, 1997), or "the cultivation of present moment attention and awareness," (Hyland, 2015, p. 219).

Mindfulness-based interventions (MBIs)

Mindfulness-based interventions are programs that help individuals arrive at a state of mindfulness. Mindfulness-based interventions using meditation techniques, have been used to help individuals with certain health conditions (Batink et al., 2013; Beddoe & Murphy, 2004; Brown & Ryan, 2003; Kabat-Zinn, 1982; King et al., 2013; Klatt et al., 2015; Kuyken et al., 2004; Lush et al., 2009; Ong, Ulmer, & Manber, 2012) . One of the earlier studies on the value of mindfulness was conducted out of the University of Massachusetts Medical Center, on 51 chronic pain patients who had undergone medical care but showed no improvement in their condition (Kabat-Zinn, 1982). Following a ten-week intervention of meditation and stress reduction techniques, results indicated that 65% of the patients showed a significant reduction in their self-reported rating of pain. Independent to the pain ratings, the study also indicated at least 50% of the patients had a reduction in mood disturbances.

Research on MBIs and Health

Given the original basis of MBIs stemming from patient-centered studies, the majority of the research has been health-related such as treatment of fibromyalgia, HIV, anxiety, and insomnia (Brown & Ryan, 2003; Klatt et al., 2015; Lush et al., 2009; Ong et al., 2012). This stream of research has indicated positive benefits of mindfulness as depicted in Table 1. Due to the abundance of empirical and non-empirical data on the subject, over 4000 articles, a Mindfulness Research Guide was created to support researchers in this area by Dr. David Black, a professor from the Keck School of Medicine at the University of Southern California and USC Comprehensive Cancer Center (Good et al., 2015).

Table 1

Health-related studies indicating positive benefits of mindfulness

<u>Health Issue</u>	<u>Author</u>	<u>Year</u>
Psoriasis	Kabat-Zinn	1998
Anxiety	Brown	2003
Stress reduction	Beddoe	2004
General Anxiety Disorder	Evans	2008
HIV	Creswell	2009
Fibromyalgia	Lush	2009
Insomnia	Ong	2012
Post-traumatic stress disorder	King	2013
Depression	Batink	2013

Mindfulness and meditation terms have been confused. Mindfulness is a psychological state, the emergence of which does not require meditation (Brown & Ryan, 2003). Little research has explored whether mindfulness matters (Cullen, 2011). The majority of the research has been in health and well-being, not in disciplines that are performance related behaviors such as management and leadership efficacy (Good et al., 2015) .

Mindfulness Based Stress Reduction (MBSR) is an MBI founded by Jon Kabat-Zinn at the University of Massachusetts Medical Center (Rapgay & Bystrisky, 2009). It consists of weekly meetings, approximately three hours in duration, delivered over an eight-week period with a one day-long retreat. The program includes education on neuroscience, mindfulness meditation techniques such as a body scan, sitting meditation, and gentle yoga exercises (Kabat-Zinn, 1982).

MBIs Another well-known MBI, originally targeted for helping populations with major depression, is Mindfulness Based Cognitive Therapy (MBCT). MBCT follows a similar programmatic structure to MBSR (Gallant, 2016) which includes eight weeks of learning and practice in addition to a daylong retreat. The program teaches participants to maintain awareness of thoughts and feelings in a non-judgmental way to reduce rumination and reduce the chances of relapse (Kenny & Williams, 2007).

An example of an MCBT study (Kenny & Williams, 2007) was conducted with 50 volunteer patients between the ages of 17 and 61 who had been diagnosed with major depression, bi-polar affective disorder, or dysthymia. All patients had been treated by a psychiatrist, except for one study member. Those diagnosed with depression had to have experienced at least three episodes of depression or a year of symptoms following one episode. Interviews were conducted following a program which consisted of sixteen hours of class time which included meditation practice. Participants were assigned to do one hour a day of meditation or yoga, along with other mindfulness-based practices over the course of eight weeks. A private session was offered to participants following the MBCT program. Post interviews and assessments were conducted.

All participants rated the program's importance to them at a score of at least seven, on a scale of zero to ten. Patients with depression had significantly reduced signs of symptoms after

treatment except for four participants but this was due to environment factors such as work. Patients with suicide ideation had scores that declined. All those with bipolar disorder indicated a reduction of symptoms. Overall, the findings showed a correlation between MBCT and reduction of the degree of depression and in suicidal ideation (Kenny & Williams, 2007).

Another example of a study on MBCT was conducted at the Ann Arbor Veterans Administration outpatient clinic on 20 combat war veterans with long-term post-traumatic stress disorder (PTSD) or those in remission of PTSD (King et al., 2013). A control group with similar characteristics had 17 participants who continued in their therapy as usual. Those who participated in the MBCT program showed significant decreases in overall PTSD symptoms, while the control group showed no indication of any change in their symptoms.

MBIs have broadened beyond health care and delivered to individuals in a variety of settings including schools, prisons, corporations, and other settings (Kabat-Zinn, 2003). Due to the vast amount of research on the positive benefits of mindfulness on cognitive functions and physiology, research and literature on the effects of mindfulness in the workplace has grown, mostly indicating positive impacts (Good et al., 2015).

Virtual MBIs

Regarding virtual training of mindfulness, there is one study to date which explored the efficacy of using an electronic-based character labeled as a “coach” to teach mindfulness versus the efficacy of a self-paced mindfulness program (Hudlikca, 2013). The electronic coach program delivered four weekly lessons on mindfulness with content derived from an MBSR program. The control group was self-paced and used audio and written materials on mindfulness. The results indicated that a virtual coach program was more effective in building and sustaining a mindfulness practice than that of a self-paced program.

Research on MBIs in the Workplace

Below are examples of research on MBIs conducted within the three workplace domains of performance, well-being, and leadership.

MBIs and Performance in the Workplace. The first study on mindfulness in a Chinese work environment was conducted among 136 Chinese nuclear plant workers (Zhang, Ding, Li, & Wu, 2013). The study was designed to test the hypothesis that context and task impact the value of mindfulness in a high stress environment. The study examined performance of control room operators with highly complex and high safety risk roles, along with field operators who had low complex and low safety risk roles. Both groups were given assessments to determine their level of mindfulness. The results concluded that there can be a direct correlation between mindfulness and performance around safety. Furthermore, it indicated that mindfulness is more relevant for jobs which require a high level of attention than for those with low complexity roles (Zhang, et al., 2013) and concluded that “the benefit of being mindful outweighs its cost for complex but not simple tasks,” (p. 433).

In another high-risk environment, the U.S. Army, holding states of alertness, cognitive capacity, and attention can hold life or death consequences. One study of this nature observed three military groups of 75 active duty soldiers prior to taking leave for duty in Afghanistan (Jha et al., 2015). One of the groups participated in an eight-week, eight-hour MBI, called Mindfulness-based Mind Fitness Training (MMFT) that involved psychoeducation, meditation exercises, and limited discussions. The second group another type of mindfulness training that only involved discussions on stress and resilience, while the third group served as a control group, thus had no training. The results showed that the groups which received the more

intensive mindfulness training had higher levels of attention than the second group which had didactic exercises, and significantly higher amounts of attention acumen than the control group which had no training. Jha and colleagues (2015) concluded that “while protracted periods of high-demand military training may increase attentional performance lapses, practice-focused MT programs akin to training-focused MT may bolster attentional performance more than didactic-focused programs,” (p. 1).

According to Dane (2011), “there is a dearth of theory on whether and how mindfulness fosters or inhibits task performance in the workplace,” (p. 999). With respect to task performance, context and job task should be considered as a determining factor for applying mindfulness. This is proposed on the basis that mindfulness heightens peripheral awareness of surroundings to the point that attention may be distracted by trivial factors. Thus, if someone needs to focus on one specific task, such as heart surgery, it is critical for them to focus only on the patient rather than other aspects of the operating room (Dane, 2011). Contrary to a surgeon’s role, litigators who work in a highly dynamic environment benefit greatly from mindfulness, given their need to pay attention to a wide assortment of environment cues in the court room (Dane, 2011). Good and colleagues (2015) expanded on Dane’s (2011) point further by stating more specifically that effective control and stability of attention during tasks can have a positive impact on task performance.

MBIs and Well-Being in the Workplace. At an insurance company in Japan, 239 male employees volunteered to take part in a stress reduction study. A 12-week MBI called Mindfulness at Work, was compared to a Viniyoga Stress Reduction Program, also a 12-week program, alongside a control group with no intervention, to determine the efficacy of one intervention over another. One of the MBIs was delivered in-person, while the other was

delivered online. All groups, including the control group, reported decreased levels of stress. The Viniyoga and the MBI groups reported strong heart rhythm coherence, a measure of the pattern in the heart's rhythm. Findings were consistent with other body-mind stress management programs (Wolever et al., 2012), thereby warranting the Viniyoga Stress Reduction Program as a viable offering, relative to others of its kind for employee well-being.

Another role in which mindfulness may play a significant part in the well-being of employees is in service roles where a high level of people engagement is involved such as customer service providers, teachers, sales clerks, and public officers. In the Netherlands, a study was conducted to examine if mindfulness reduced emotional exhaustion and increased job satisfaction within this population (Hülshager et al., 2013). The sampling included 219 interactive service employees representing a cross-section of occupations (e.g., nurses, social workers, sales clerks) who participated in a five-day diary exercise which involved journaling before and after work. Multiple measures were taken including mindfulness levels, surface acting, job satisfaction, and emotional exhaustion. The study concluded that surface acting (when someone pretends to feel a certain emotion usually to fit in to the environment) mediated the correlation between mindfulness, job satisfaction, and emotional exhaustion. However, if looking at mindfulness alone, it had positive results on reducing emotional exhaustion and increasing job satisfaction (Hülshager et al., 2013).

A follow-up study, was conducted to understand the relationship between mindfulness and surface acting, as they relate to emotional exhaustion and job satisfaction. The sampling of 64 working adults, were randomly divided into an intervention group and a control group (Hülshager et al., 2013). Both groups participated in a diary exercise like the prior study, but in the second study, the time for journaling was extended from five days to ten days. In addition to

journaling, the intervention group participated in a ten-day MBI which consisted of a of MBSR and MBCT exercises, plus a protocol referred to as the Loving Kindness Meditation. The second group did not participate in any MBI. The researchers compared the results of this study with the first study. They concluded that individuals with higher levels of mindfulness are more likely to surface act, and as a result, reduce levels of job exhaustion. They also recognized that surface action, with mindfulness as an antecedent, did not necessary increase levels of job satisfaction (Hülshager et al., 2013).

MBIs and Leadership. A recent study on the impact of an MBI on leadership was conducted in Eastern Canada in which 11 mid-level health care managers participated in a two-week MBI referred to as Mindful Awareness Training (MAT; Klatt et al., 2015). MAT involved a one weekend retreat, home practice assignments, and a webinar on mindfulness awareness. Pre and post-assessment of stress levels and leadership effectiveness were conducted along with post-intervention interviews. A control group of ten managers took the same assessments. Relative to the control group, the MAT participants' stress levels were reduced and maintained over eight weeks as confirmed by a post-assessment. Anecdotal information was collected to understand changes in leadership effectiveness. One participant commented after the study, that:

... it has really made me stop and think about a lot of things. About how brutal I was being with myself and other people around me. I was expecting too much of other people around me [...] I take the time to talk to people, if they come to my office with something, I don't make them feel rushed. I ask them to have a seat. [...] And now, I don't think people come any more than they used to, but now when they come I think they feel more comfortable with me.

Quantitative data did indicate that sustaining a mindfulness practice would be difficult for this population, given the demanding nature of their jobs. There were no quantitative measures indicating that the MAT had any correlation to enhanced leadership effectiveness but it is worth exploring further (Klatt et al., 2015).

Overall, there is very little research on the correlation of MBIs as it relates to leadership, however there are linkages in earlier research indicating mindfulness has a positive impact on subordinates of the leaders with high levels of mindfulness. Some of these factors include improved job satisfaction, employee well-being, work-life balance, job satisfaction, citizenship behaviors, and job performance, work-life balance, job satisfaction, and citizenship behaviors (Good et al., 2015; Reb, Narayanan, & Chaturvedi, 2014).

In summary, mindfulness based interventions indicate positive results across the areas of individual performance, employee well-being and leadership effectiveness.

Psychological Capital

The term Psychological Capital (PsyCap) grew out of the positive psychology movement, which looks at positive traits of an individual. Luthans and colleagues (2007) applied the concept of PsyCap towards the workplace, stating that PsyCap is equally important to organizational effectiveness, as is human capital (“what you know”) and social capital (“who you know”). It is a construct made up of four positive organizational behaviors (POB) which are considered measurable, and can result in organizational performance. These behaviors are efficacy, hope, optimism, and resilience. A comprehensive definition of PsyCap is defined:

An individual’s positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success (Luthans et al., 2007, p. 542).

Self-efficacy has been proven to show measurable results, beyond other standard variables such as motivation and goal setting, to enhance performance (Stajkovic & Luthans, 1998). In a study conducted by Stajkovic & Luthans, (1998), they analyzed 114 studies and

realized that efficacy “has a correlation of .38 with work-related performance,” (p. 253).

Research on the impact mindfulness has on hope, optimism and resiliency is still relatively new (Luthans & Youssef, 2004).

Psychological Capital Questionnaire (PCQ)

The PCQ is a validated tool, that assesses the psychological construct of resiliency, hope, efficacy, and optimism. It is a 24-item assessment, using a Likert scale of 1-6 rating, from “strongly disagree” to “strongly agree.” PsyCap is considered as a state-like quality which is “relatively malleable and open to development,” (Luthans, 2007, p. 326).

Psychological Capital and Leadership

In 2014, a study among leaders in New Zealand, was conducted to explore the characteristics needed to thrive in increasingly stressful environments (Roche et al., 2014). More specifically, the study examined if levels of mindfulness and PsyCap contribute to a leader’s well-being. Surveys were gathered from 697 leaders ranging from CEOs, senior leaders, mid-level leaders, junior-level leaders, and entrepreneurs. Mindfulness was measured using the Mindful Attention Awareness Scale (MAAS). PsyCap was measured using the PCQ which measures all four categories of PsyCap: resilience, hope, efficacy, and optimism. The Axtell (Axtell et al., 2002) was used to measure levels of depression and anxiety. Negative affect, measured only among junior and mid-level leaders, was done using the Positive and Negative Affect Schedule (PANAS) (Watson et al., 1988). Job burnout was measured among the entrepreneur sampling only, using six scales such as emotional exhaustion and cynicism.

Using a structural equation model, the study indicated that mindfulness and PsyCap is negatively correlated to depression, anxiety, negative affect, and job burnout. Additionally, PsyCap was found to be positively correlated with mindfulness. A follow-up study concluded

that levels of mindfulness and PsyCap correlated with the level of leadership. Overall, this study indicates that mindfulness should be considered as a preventative tool for combating depression, anxiety and burnout for all levels of leadership (Roche et al., 2014).

Another study (Story et al., 2013) examined the contagion effects of a leader's psychological capital on followership (i.e., reports, subordinates). The variables considered as mediators of PsyCap were distance and quality of relationship. The sampling included surveys from 161 global leaders and 282 of their respective followers, from within a Fortune 100 multinational corporation. The leaders represented 41 nationalities; the followers represented 47 nationalities.

Distance was measured by physical location and frequency of contact between the leader and his or her followers. Quality of relationship was measured using LMX (Graen & Uhl-Bien, 1995), a tool which looks at leader-report outcomes such as mutual understanding, trust, respect, appreciation, and loyalty. PsyCap was measured using the PCQ.

Using multilevel structural equation modeling (MSEM), the results indicated that leaders with high levels of quality relationships tended to have higher levels of PsyCap. It also showed that these particular leaders tend to have followers with higher levels of PsyCap. The correlation between leader PsyCap and distance had a significant impact on LMX, "indicating that leader PsyCap may moderate the effect of frequency of interaction on average LMX," (Story et al., 2013, p. 2534).

PsyCap can be seen as an indicator for competent global leadership. A study providing evidence for this was conducted to examine the relationship between positivity and global leadership traits (Vogelgesang et al., 2014). Data was collected among 176 undergraduates and graduate level students over the course of five years. The students took several global leadership

competency-based assessments and a 40-hour course on global leadership. Additionally, the participants were graded on a complexity-based exercise. Post-assessments and analysis of findings indicated that individuals with strong PsyCap are apt to have a stronger global mindset, specifically in the areas of non-judgmentalness, inquisitiveness, and performance (Vogelgesang et al., 2014).

Challenges and Conclusions of the Literature Research

There is no one specific path to mindfulness, nor one specific type of MBI used in organizations, thus it is difficult to make a relatively comparative view of the efficacy of MBIs across organizations (Allen et al., 2012). Similar to the movement of yoga to the west, the concept of mindfulness is getting distorted as it enters the corporate world, taking on a “McMindfulness” effect (Taylor et al., 2011) where MBIs are marketed to meet corporate objectives and revenue demands.

Regardless of these challenges, research on MBIs thus far has shown positive effects in the workplace. This makes MBIs an “attractive management tool” (Good et al., 2015, p. 21). However, one study suggests that mindfulness is not a panacea for all things and may actually be a hindrance when it comes to tasks where little expertise is needed (Dane, 2011).

As research increases, more opportunities for further exploration into the subject is equally growing. As MBIs are becoming more popular in the workplace, it is tempting to globalize the positive impact it has in the workplace however, as Good and colleagues (2015) tell us that most of the research has been conducted in laboratories and non-workplace settings, it is a bit premature to make broad claims to the impact MBIs have in the workplace. More empirical data is needed using sophisticated research methods to further understand areas such as impact on leaders, context of setting on performance, what constitutes an effective MBI design,

modalities of delivery, benefits of pairing mindfulness with other medical sustainability of minimal amounts of meditation (Good et al., 2015).

In summary, there is enough body of evidence indicating that MBIs can play a positive role for leaders' well-being, performance and relationships. Since leadership can highly influence employee stress, health, and absenteeism (Westerlund et al., 2010), it seems logical to apply MBIs to the leadership population as a means of creating greater work conditions. If mindfulness brings about positivity as described in Roche's study, it is likely to conclude that MBIs will have a positive effect on PsyCap. It is the researcher's intent to provide additional evidence that MBIs can support leaders' psychological capacity to better manage the ever-increasing complexities of working in today's global environment.

Chapter 3:

Method

The purpose of this study is to explore the impact in which MBIs have on leaders in the workplace, specifically their levels of PsyCap (Luthans et al., 2007). Overall, the researcher is interested in understanding if an MBI is an applicable tool for enhancing leadership effectiveness in the workplace. Additionally, the study is designed to understand if one's level of PsyCap (Luthans, Luthans, & Luthans, 2004) is impacted from participating in an MBI.

This chapter describes the research methodology and design used for this research project. The chapter is broken down into the research design, sampling, measurement process, and data analysis of this project.

Research Design

The current research was derived by reviewing existing literature on MBIs. Based on the review of existing literature and analysis of themes, the impact of MBIs on leadership was further explored and leaders were identified. A leader, for the purpose of this study, is defined as someone working within an organization with at least one individual reporting to him or her. The data was collected by applying a convergent parallel mixed methods approach using interviews, experimentation and assessments to collect quantitative and qualitative data.

The research is designed to answer the following questions:

1. What is the impact of virtual and classroom-based MBIs on a leaders' Psychological Capital (PsyCap)?
2. What is the impact of an MBI on a leader personally?
3. What is the impact of an MBI on a leader professionally?

Sampling

The researcher applied a stratified sampling method to ensure that participants of the study qualify as leaders. Recruitment involved the researcher conducting outreach to local and known business entities, online resources, in addition to personal and professional contacts. To fulfill the sampling goal, a snowballing method for recruitment was employed.

The original total sample included 30 organizational leaders, from different organizations, divided into two sub-groups. Determination of the groups was based on each participant's interest of joining a more time-intensive group experiment or a low-intensive, self-paced experiment. Group A, the classroom-based experimental group, comprised 20 non-profit leaders. There were ten participants in Group B, the virtual-based control group. Four members of Group B worked for global corporate organizations; the remaining members worked for nonprofit and government institutions. During the MBI, four leaders from the experimental group were unable to fully participate; one leader from the control group dropped out leaving a total of 24 participants in the final data sample.

Confidentiality Procedures

Confidentiality procedures followed the Institutional Review Board for Social & Behavioral Science recommendations. Identities of the participants from the interviews remained confidential in the final report since it bears no relevance to the study. PsyCap assessment data (PCQ) of each participant was shared by the researcher, respectively.

Upon initial contact with participants, the researcher provided an explanation of the study purpose, data collection and data archival process. Once questions were answered, participants were asked to sign a consent form certifying acknowledgement of the confidentiality agreement.

Data Collection

Psychological Capital (PsyCap). PsyCap is derived from the field of Positive Psychology and looks at “one’s positive appraisal of circumstances and probability for success based on motivated effort and perseverance,” (Luthans et al., 2007, p. 550). It addresses four positive psychological resources which are hope (maintaining focus on goals), resilience (returning to one’s original state after a challenging event), efficacy (self-perception on one’s ability to perform tasks successfully), and optimism (having positive future expectations).

Pre-and Post-Intervention Questionnaire (PCQ). The experimental group and the active control group members were given a pre-and post-intervention questionnaire which includes a self-rater PCQ assessment (Appendix C) developed by Luthans, Avolio, and Avey (2007). This instrument consists of 24 questions on a Likert scale with six ratings from strongly disagree (1) to strongly agree (6). These questions were broken down into four psychological categories of hope, resilience, efficacy and optimism. An example of a question measuring hope was “I feel confident analyzing a long-term problem to find a solution.” An example of a question regarding resilience was “I can get through difficult times at work because I’ve experienced difficulty before.” An example of a question regarding efficacy was “I can think of many ways to reach my current work goals.” An example of a question regarding optimism was “I always look on the bright side of things regarding my job.”

The PCQ is the primary tool for measuring PsyCap and has been a validated tool in numerous research studies in United States and South African work settings (Görgens-ekermans & Görgens-ekermans, 2010; Timo, Clemens, Jan, & Kathrin, 2016). It was validated in research studies on leader positivity and its influence on followers (Avey, Avolio, & Luthans, 2011).

Pre-and Post MAAS Collection. The experimental group was given an additional pre- and post-intervention measurement using the MAAS (Appendix D). The MAAS is a “correlational, quasi-experimental, and laboratory studies have shown that the MAAS taps a unique quality of consciousness that is related to, and predictive of, a variety of self-regulation and well-being constructs,” (Brown & Ryan, 2003, p. 822). Ten of the original 20 experimental group members completed the MAAS before and after the classroom MBI. The MAAS was not distributed to the control group.

Post-Intervention Interviews. For the qualitative portion, two researchers conducted interviews over the phone with open ended and closed ended questions with 13 members of Group A. The researchers recorded all interviews for analysis. Using an open coding approach, the interviews were reviewed several times to identify reoccurring outcomes expressed which became the primary themes. The themes were recorded by question, in an excel spread sheet, along with corresponding quotes. The data was reviewed again to accurately record the frequency each theme was mentioned and the number of respondents who mentioned it.

In the next level of analysis, axial coding was applied to identify relationships among the themes derived from the answers of the interview questions (Strauss and Corbin, 1990.)

Mindfulness-Based Intervention (MBI). Group A participated in an experimental classroom-based mindfulness based program over the course of eight weeks, for one hour at a time. The curriculum was designed by Karen Duggan of the Mindworks Company. The program contained elements of MBSR such as instruction on neuroscience, experiential activities, breathing techniques, group dialogue, and journaling. In addition to the mindfulness lessons, leadership competencies were also discussed including delegation, strategic clarity, listening skills, goal setting, and compassionate leadership. Open dialogue at the end of each class

provided participants an opportunity to relate the lessons to their current role and objectives of their organization. Additionally, Group A listened to a three-minute meditation recording at the beginning of each class. The classroom material was delivered by the researcher at the Center for Volunteer & Nonprofit Leadership, a resource center for nonprofits in Marin County.

Group B participated in an experimental virtual intervention over the course of eight weeks. Each week, the participant received a three-minute meditation recording. These recordings were the same recordings used in Group A and were distributed by the researcher via text messaging.

Data Analysis Procedures

As a convergent mixed method approach to data collection, there were two phases of data analysis. In phase one, pre-intervention PCQ data was collected from Group A and Group B. Following the interventions, Group A and Group B completed a second PCQ. Group A also participated in post-intervention interviews, in addition to taking a MAAS. The qualitative findings from the interviews were compared to the quantitative findings of the PCQ reports in a side by side comparison separately for phase one and for phase two.

This approach was determined because it is believed that the qualitative information will provide more in-depth information behind the results of the PCQ reports and support the purpose of this research project. The qualitative data will provide background information on how the MBI made an impact on the leader's psychological capital.

Summary

In summary, the intention of this approach is to test the hypothesis that a mindfulness-based group intervention has a positive impact on leaders, including PsyCap. It also tests the hypothesis that a MBI will have greater impact on the psychological capital of the intervention

group experiencing an MBI, than on the active control group which only received weekly recordings of mindfulness practices. The mixed methods approach allows for a deeper understanding behind the results of the quantitative data.

Chapter 4:

Results

The purpose of this study is to explore the impact in which MBIs have on leaders in the workplace. Three research questions were examined:

1. What is the impact of MBIs on a leaders' Psychological Capital (PsyCap)?
2. What is the impact of a MBI on a leader personally?
3. What is the impact of a MBI on a leader professionally?

This study involved an 8-week workshop, which involved 60-minute classroom instruction, during which several mindfulness concepts were taught, along with a 3-minute meditation, interactive dialogue, and experiential exercises. Between classes, the experimental participants were provided with a weekly 3-minute meditation recording which coincided with the upcoming class, along with a 3-minute video on mindfulness by Jon Kabat-Zinn. The control group was provided with the same 3-minute meditation recordings via text messaging, over the course of 8-weeks.

The first section of this chapter presents an overview of the participant demographics. The second section presents the quantitative survey data collected using the PCQ (Luthans, 2007), an assessment used to measure the level of psychological capital (PsyCap). This section also covers the collected pre-and post MAAS scores to identify any distinctions of levels of mindfulness once the classroom experiment was complete. The third section presents the qualitative data gathered during phone interviews with the experimental group participants. This is designed to demonstrate themes gathered regarding the impact of the MBI on the participants'

personal, professional and leadership development. The final section provides an overall summation of the findings.

Participant Demographics

More than three fourths of the participants were female (87.5%) and nearly half of the participants (45.83%) had no prior experience with mindfulness practices (Table 2). Overall, the participants equally represented various ranges of years of experience leading others (between one and 30), with approximately one quarter having less than five years of experience (29.16%), one quarter having five to ten years of experience (29.16%), one quarter having ten to 20 years of experience (20.83%), and one quarter having over 20 years of experience (20.83%) in a leadership role. Majority of the participants had less than five direct reports (79.16%). Both groups of participants completed the pre and post PsyCap assessment, whereas only the experimental group participated in post-intervention interviews.

Table 2

Participant Demographics

	Active Control <i>N = 9</i>	Experimental <i>N = 15</i>	Total <i>N = 24</i>
Gender			
Male	2 (22.22%)	1 (6.66%)	3 (12.5%)
Female	7 (77.77%)	14 (93.33%)	21(87.5%)
Ethnicity			
White	8 (88.88%)	13 (86.66%)	21 (87.5%)
Multi-racial	1 (11.11%)	2 (13.33%)	3 (12.5%)
Years Leading Others			
< 5 years	3 (33.33%)	4 (26.66%)	7 (29.16%)
➤ 6-10 years	5 (55.55%)	2 (13.33%)	7 (29.16%)
➤ 10 - 20	1 (11.11%)	4 (26.66%)	5 (20.83%)
➤ 20	0 (0.00%)	5 (33.33%)	5 (20.83%)
# of Direct Reports			
< 5	8 (88.88%)	11 (73.33%)	19 (79.16%)
>5-10	1 (11.11%)	4 (26.66%)	5 (20.83%)
Mindfulness Practice Experience			

None	3 (33.33%)	8 (53.33%)	11 (45.83%)
Some (at least one class)	4 (44.44%)	4 (26.66%)	8 (33.33%)
Extensive (regular practice >1 yr.)	2 (22.22%)	3 (20.00%)	5 (20.83%)

Quantitative Data – PCQ

Pre-Intervention PCQ results for both groups. Table 3 presents the descriptive statistics and independent t-test results of both groups' PCQ scores pre-intervention. This was conducted to determine if the scores of both groups self-reported a difference in PsyCap scores before the intervention. This was also conducted to determine if there were any statistically significant differences between the pre PsyCap scores of the active control group and the experimental group. Scores are broken down by the four psychological capital traits of efficacy, hope, resilience, and optimism. There was not a significant difference in the scores between the active control group and the experimental group prior to the intervention in the four psychological constructs of PsyCap.

Table 3

Pre-Intervention PCQ Scores: Active Control Group versus Experimental

	Control n = 9 Mean (SD)	Experimental n = 15 Mean (SD)	t	df	Sig.
PsyCap					
Efficacy	4.80 (0.70)	4.69 (0.68)	0.37	22	0.72
Hope	4.94 (0.58)	4.81 (0.80)	0.44	22	0.66
Resilience	4.76 (0.68)	4.60 (0.62)	0.58	22	0.57
Optimism	4.56 (0.90)	4.34 (0.54)	0.73	22	0.48

Post-Intervention PCQ results for both groups. Table 4 presents the descriptive statistics and independent t-test results of both groups PCQ scores post intervention. This was conducted to determine if the scores of both groups self-reported a difference in PsyCap scores

after the intervention. This was also conducted to determine if there were any statistically significant differences between the post PsyCap scores of the active control group and the experimental group. Scores are broken down by the four psychological capital traits of efficacy, hope, resilience, and optimism. While the scores, on a practical level, indicated that the PsyCap scores did increase after the intervention, there was not a statistical significant difference in the scores between the active control group and the experimental group following the intervention in the four psychological constructs of PsyCap.

Table 4

Post-Intervention PCQ Scores: Active Control Group versus Experimental Group

	Active Control n = 9 Mean (SD)	Experimental n = 15 Mean (SD)	t	df	Sig.
PsyCap					
efficacy	5.19 (0.79)	5.01 (0.58)	0.62	22	0.54
hope	5.40 (0.44)	5.23 (0.53)	0.83	22	0.42
resilience	4.83 (0.49)	4.99 (0.45)	0.79	22	0.44
optimism	4.98 (0.54)	4.71 (0.39)	1.45	22	0.16

PsyCap results for the Control Group. Table 5 represents the descriptive statistics and results for a paired t-test for the active control group pre and post-intervention. This was conducted to determine if there were any differences between the pre-and post-intervention PsyCap scores of the active control group. The intervention for this group was listening to a different 3-minute meditation recording, on a weekly basis, over the course of eight weeks. The results for Table 5 show that there was a statistically significant difference in PsyCap scores for hope ($t(8) = 3.95, p = 0.00$).

Table 5***Pre- versus Post Intervention PCQ Scores: Active Control Group***

	Pre- Intervention (SD)	Post- Intervention (SD)	t	df	Sig.
PsyCap					
Efficacy	4.80 (0.70)	5.19 (0.79)	1.38	8	0.20
Hope	4.95 (0.58)	5.40 (0.44)	3.95	8	0.00
Resilience	4.76 (0.68)	4.83 (0.49)	0.44	8	0.67
Optimism	4.56 (0.91)	4.98 (0.54)	1.81	8	0.10

PsyCap results for the Experimental Group. Table 6 represents the descriptive statistics and results for a paired t-test for the experimental group pre and post-intervention. This was conducted to determine if there were any differences between the pre and post-intervention PsyCap scores of the experimental group. The results for Table 6 show that there was a statistically significant difference among all four constructs of psychological capital: efficiency ($t(14) = 2.78, p = 0.05$), hope ($t(14) = 2.71, p = 0.02$), resilience ($t(14) = 3.11, p = 0.01$) and optimism ($t(14) = 3.37, p = 0.00$.) This indicates that the intervention had an impact on the experimental group's self-reported scores PsyCap scores overall.

Table 6***Pre- versus Post Intervention PCQ Scores: Experimental Group***

Variable	Pre-Intervention PsyCap Mean (SD)	Post-Intervention PsyCap Mean (SD)	t	Df	Sig.
PsyCap					
Efficacy	4.73 (0.75)	5.13 (0.52)	2.78	14	0.05
Hope	4.81 (0.83)	5.23 (0.53)	2.71	14	0.02
Resilience	4.60 (0.62)	4.99 (0.45)	3.11	14	0.01
Optimism	4.34 (0.54)	4.71 (0.39)	3.37	14	0.00

MAAS results for the Experimental Group. Table 7 represents the descriptive statistics and results for the two-sample t-test with equal variances using the pre-and post-intervention MAAS results for the experimental group. Ten of the fifteen experimental group members completed this assessment. This was conducted to determine if members of the experimental group self-reported any shifts in their levels of mindfulness states once they completed the classroom MBI. Table 7 indicates that there was a statistically significant difference ($t(9) = 4.62$, $p = 0.00$).

Table 7

Pre-and Post-Intervention MAAS: Experimental Group

Pre-Intervention MAAS Mean (SD)	Post-Intervention MAAS Mean (SD)	t	df	Sig.
3.6 (0.68)	4.25 (0.81)	4.62	9	0.00

Qualitative Data – Post-Experiment Interviews

As indicated in Chapter 3, interviews were conducted among 13 of the 15 experimental group members to uncover any impact the 8-week MBI had on their personal, and professional and leadership. Themes were identified along these three areas from the data contained in participants' answers to questions 7 and 8 in the post-experiment interview. These questions were designed to shed light on whether the MBI had provided valuable learnings for the leaders during or immediately following the 8-week experience.

This section is divided into two parts. The first part describes the frequency of themes reported out. The second part summarizes the findings and provides key quotes corresponding to the respective themes identified.

Frequency of Themes. All interview participants reported out that the MBI had provided

developmental learnings on a personal and professional level. 12 of the 13 leaders reported that the MBI had impacted them personally and professionally. The remaining leader reported that the MBI had only impacted her personally. Empathy was reported as a learning from the MBI on a personal, as well as professional level.

Impact of an MBI at the Personal Level. At a personal level, participants reported four primary learnings received from the mindfulness class (Table 8). These were obtaining more work/life balance, empathy, community support and better decision making.

Eight of the 12 interviewees (66.66%) reported that they learned tools on how to achieve greater work/life balance. This was referenced by having a sense of slowing down, being more self-aware of one's surroundings, and have a greater sense of ease between the daily expectations at work and home. One participant who noticed a greater sense of balance elaborated further by stating "I'm becoming more focused and calm and attentive to my people and able to just function at a higher, more balanced level." This participant stressed the value of this given that the industry they work in for the most part has a high burnout issue. The participant elaborated further by stating, "It's a societal issue, but I think in nonprofits, we just burn ourselves into the ground. I can tell this is working at home and can see the difference it's making for me on my job." Another participant who has felt overbearing and controlling a lot shared that they found themselves "slowing down and appreciating what I accomplished. I may not have more time for myself but somehow, I feel as if I can take more time to get other things done outside of work." Another participant commented "I'm slowing down to get intentional about my priorities at home and work. This gives me more control over my time and how I spend my energy on things. I feel like I have more control over both parts and that feels like a big relief."

Half of the interviewees (50%) noticed that enhanced awareness from mindfulness practices resulted in the ability to listen more empathically. One participant explained:

I feel like I have the tools to (listen) in a more compassionate way...and see things from their side. To be aware of my state of mind, really, more so, and less focused on the work or the job or the thing I need to say or the point I need to make. To first put myself in a good place, so that I'm communicating in a way that doesn't, maybe, feel like I've already made up my mind and to stay open to what the other is saying. I think being on the other side, like having your boss talk to you as when they've already made up your mind about something. I think that's harder to be on the other side of that.

The third most common theme was regarding the power of being in a community of peers. 33% of the interviewees reported this as a key learning for them. Listening to others with a shared experience in the workplace, in general, offered support and comfort. One participant explains, "I used to think I was the only one who had this problem of being overworked and stressed and working all the time, so community was helpful. It framed the role for me a little bit. It's like, oh, okay, other people have this and other people are dealing with it, so don't just blame the job. Take control over this. Look at where I have control over this and stop looking to the outside for resolution."

The fourth theme reported by 25% of the participants indicated that the MBI led to making better decisions in the moment. One leader commented, "We deal with people in crisis so to make sure I know where I'm coming from and what's driving my decisions so I really appreciate having a higher awareness of my own emotional inside so I can make the best decision." Another participant noted, "We're moving so fast here that these help me reset and get clarity on what is needed in the moment."

Table 8*Frequency of Comments reported on Impact of an MBI on a Personal Level*

Theme	<i>N</i>	%
Work-life Balance	8	66.67%
Empathic Listening	6	50.00%
Community Support	4	33.33%
Better Decision Making	3	25.00%

Impact of an MBI at the Professional Level. Nine of the 12 leaders (75%) found that they were becoming more resilient or realized their ability to maintain resilience during times of crisis or stress. One leader shared, “I feel like this class really gave me some tools to use in the workplace and reinforced that for me, I can manage the pressure that’s mounting in our community. I’ve integrated that into my sense of myself, which is powerful.” Another participant shared, “After the election when everyone was in shock, I felt like I was fine. I was able to be there for others.”

Developing greater empathy in one’s professional life emerged again for 66.66% of the leaders. One leader explained this by stating, “My core issue is dealing with my employees and creating a sense of empathy and compassion. I have a hard time, when they’re not doing a good job, of being supportive of them...when I get someone who is challenging, the way I treat them doesn’t help the situation. I can’t get out of myself to look at it through their eyes or try to prop them up, and I’m doing way better.” Another leader with over 20 years of experience shared that “being empathetic is such a good foundation for beginning a discussion or trying to solve a problem. If you can do that effectively, it makes a big difference.” To further demonstrate this learning, another leader commented how this related to working with their organization’s board of directors:

We have a lot of changes going on with the board and change is uncomfortable, but this class has helped me step back and do emotional checks. I'll do that zero to ten things real fast, it's not helpful to anybody and then I'll get a clear picture of where the other person is coming from. To take that time to decompress, take the emotional piece out of it and put myself in their shoes, has been invaluable.

Another leader who has had difficulty with one of their reports noted:

I had struggles with her understanding goals and priorities and this course really helped me look at it from her perspective and communicate with her a little bit differently. It's also let me let go of some of the things like, 'Well, this is the way she needs to do it but actually she doesn't need to do it the way I would do it.' She's a different person and she's going to do it this way and it might take a little bit longer, it might come out a little bit different, but it's okay.

Seven of the leaders reported that the program validated strengths they already have in the workplace, giving them a greater sense of confidence and self-efficacy. Each of these leaders had at least ten years of experience. One leader explained, "this made me realize that I have the qualities of a good leader, with empathy and compassion, focus. It really reiterated that for me, which feels good." Another leader who held over 20 years of experience shared, "In my area of experience, I earned a lot and I can take that for granted sometimes. It's nice when I realize that an insight I mention is based on the experience. This was a very reinforcing experience." Those with self-confidence are more likely to exert themselves harder, over longer durations, particularly in the face of many challenges.

Half of the leaders said that they learned how to make better choices, particularly during challenging situations or when the pace of work is fast. Leaders commented on slowing down mentally, which in turn, helped manage their behavior and emotions more effectively. Leaders characterized this in various ways, "I feel less emotional, less frustrated, and more sort of willing to go down whatever path needs to go down to get things resolved." Another leader commented:

The biggest thing is I feel I am very quick to judge and jump to conclusions. Now, between meetings, I give myself time just to reset, slow down and think, okay, what do I need from this meeting? What do I need to remind myself? Do I need to

remind myself just to shut up, you know? Basically, to give myself the time, even if it's a minute, to sort of reset, slow it down, and think of my audience.

Seven of leaders commented on how they learned to trust others more, and through delegation, they were empowering their staff to become leaders themselves. One leader shared, “I think I learned that I need to be a little less controlling, a little less micromanaging of things. I think that's going to give them the ability to grow and to take on more responsibility. To not step in and be the mom... Let them take the responsibility because I think it's beneficial to both of us if I do that.” Another leader noted that they learned, “Solving their problem for them is not always the best way to help them. It certainly isn't the best way to help them develop and so the class really for me, that was a real focus is trying to pay attention to what other people need instead of just solving the problem for them.” Another participant noted that the class “made me realize that I want others to feel good and they can feel like they can do what they need to do without coming to me with the same problem again.”

Another theme which was notable was that leaders reported that they learned how to be more effective in handling difficult conversations. Their observations were discovered during the 8-week experiment. For example, one leader who has a challenging relationship at work noted:

I've had a couple of very difficult conversations in this role with a couple of people that are senior to me and one person that's not, who reports to me. They've gone well. That is a huge change. I internally didn't crumble. I didn't feel guilty. I was assertive. I set a boundary, but I was also compassionate. I listened to what his concerns were and I feel like we came up with a good solution, a good compromise. In the past, I would have just caved to whatever, ‘Yeah, you're right. Okay, okay.’

The final theme which emerged from one-quarter of the leaders was noticing more capacity around leading with authenticity. One leader captured their experience with this by stating, “Often at work, we feel a pressure to be a certain way, to play a certain role. Taking on those roles can be damaging because you're putting that added pressure to yourself that is

completely unnecessary.” Another comment which captures this sentiment was, “My persona in the workplace is really the same persona in my private life. Of course, there are some boundaries that I'm able to establish depending on the situation I'm in, but that I don't need to be someone else at work. I can just be me and that's fine.”

Members of the control group were not interviewed formally, however two of the nine participants reported out that they believed the recordings set a positive tone for the remainder of the day in which they listened to the recording.

Table 9

Frequency of Comments reported on Impact of an MBI on a Professional Level

Theme	N	%
Resilient	9	75%
Empathy	8	66.66%
Self-efficacy	7	58.33%
Emotional Self-Management	6	50.00 %
Empowering Others	4	33.33%
Dealing with challenging relationships	4	33.33%
Authentic leadership	3	25.00%

Summary

This chapter presented the findings of the study. The first section described the demographics of the study participants. The second section presented the quantitative data collected from the PCQ, which measures the four psychological traits of psychological capital: efficacy, hope, resilience and optimism. The PCQ was distributed to an active control group of nine leaders and to an experimental group of fifteen leaders, all of whom held at least one year of leadership experience. Additionally, quantitative data is presented on the pre-and post MAAS results from a subset (n = 10) of the experimental group. Participants from both groups had a

mixed range of experience in mindfulness practices, from no experience to over twenty years of practicing mindfulness.

Table 3 and Table 4 indicate there were similar PsyCap scores among both groups and had no statistical significant differences pre and post-intervention. Table 5 and Table 6 were comparative views of the pre versus post-intervention PsyCap scores for the active control group and the experimental group, respectively. Table 4 indicated that there is statistical significance in the PsyCap score for hope among the active control group. Table 5 indicated that there is a statistical in all four psychological capital traits among among the experimental group. Table 7 indicated that there is a statistical significance in the MAAS scores among the subset (n = 10) of the experimental group.

The third section presented the findings of the individual phone interviews with 12 of the 15 leaders from the experimental group. There were no interviews conducted among the active control group participants, therefore, no themes were provided.

The answers to the interview questions surfaced multiple themes related to what the leaders learned from the MBI, at a personal and professional and leadership. Being able to listen empathically ranked as a common theme which was reported out the most among all leaders and at a personal and professional level.

Chapter 5:

Discussion

The purpose of this study is to explore the relative impact of virtual and MBIs (MBIs) on leaders' levels of PsyCap. Three research questions were examined:

1. What is the impact of virtual and classroom-based MBIs on a leaders' Psychological Capital (PsyCap)?
2. What is the impact of an MBI on a leader personally?
3. What is the impact of a MBI on a leader professionally?

This chapter reviews the study conclusions and interpretations, recommendations, and implications, limitations, and directions for future research. This chapter concludes with a summary of findings.

Conclusions and Interpretations

Conclusions were drawn and implication deduced for each of the research questions in this study. These are described in the sections below.

Impact of an MBI on PsyCap Scores of Leaders. Study results suggested that MBIs have a significant positive impact on leaders' psychological capital: efficacy, hope, resilience, and optimism. This study also indicates that a classroom-based MBI is more effective than a low-content, virtual MBI. This is evident from the PsyCap scores among the participants from the classroom-based MBI in which all four areas of PsyCap had statistical significance, yet only one of the areas (hope) held statistical significance for the virtual MBI. Since PsyCap is a core construct which can be developed and increased over time (Luthans et al., 2004; Luthans, Avey, & Lincoln, 2008), classroom-based MBIs can serve as a leadership developmental tool which has broad applications.

More specifically, MBIs raise positive psychological traits and provide organizations with an opportunity to increase these traits. Self-efficacy, for example, has been directly linked to personal motivation, setting higher goals, feelings of competence, confidence around challenges, and “staying power” through obstacles (Bandura, 1994; Hollenbeck & Hall, 2004). It is also associated with having the motivation and the cognitive resources to perform at a mastery level, including complex tasks. As in all the PsyCap traits, this can be developed over time and reinforced. (Hollenbeck & Hall, 2004; Story et al., 2013; Vogelgesang et al., 2014). In addition to self-efficacy, it is important to note that hope, resilience and optimism further complement the capacity for leaders to enhance performance in today’s demanding work climate. Similar to self-efficacy, high levels of hope can be motivational but hope is connected to an individual’s drive and personal “zest” for acting upon challenges (Helland & Winston, 2005). High levels of resiliency has been a helpful indicator of a “long-term quality of adjustment to the leadership role” particularly in challenging environments (Holmberg, Larsson, & Bäckström, 2016). Believing in the best possible outcome, as in optimistic individuals, is associated with numerous outcomes such as leadership potential, better relationships, and coping skills (Chemers, Watson, & May, 2000; Medlin & Green, 2009). Furthermore, when a leader demonstrates high levels of efficacy, hope, resilience and optimism, there is a greater likelihood for increasing positivity among followership. Since there is a clearly demonstrated relationship between positivity and performance (Avey et al., 2011), MBIs can be considered as an organizational resource for increasing performance among leaders, teams and organizations, particularly during stressful, challenging times.

Impact on MBIs on a Personal Level . This study also suggests that classroom-based MBIs are applicable as a work-life balance tool, which falls under the realm of wellness

programs in organizations. This was evident from two-thirds of the interviewees among the experimental group which expressed that the MBI created greater ability and feelings of having balance throughout their day at work and home. This was expressed in different ways, such as having more internal peace, greater capacity for handling pressure, increased ability to manage conflict, and feeling less stressed. This outcome corresponds to prior research which indicated that “higher leader mindfulness was associated with higher employee work–life balance” (Reb, et al. 2014, p. 39). This is important because of the positive impact work-life balance has on health and job performance.

Work-life balance activities such as involvement with community organizations, can also enhance social capital (Luthans & Youssef, 2004; Luthans, Youssef, Sweetman, & Harms, 2012). Investing resources in local community engagement can support an organization’s competitive advantage such as building networks for sharing and gaining knowledge, and building trust. Companies are realizing this by creating community relationships for their employees. For example, Smucker Co. offers employees unlimited paid time off to volunteer in the community. These outside activities in turn can impact job performance, both directly through created connections and contacts, and indirectly through enriched social support and enhanced psychological well-being (Luthans & Youssef, 2004)

In relation to this finding, organizations are increasingly investing in human resource initiatives to reduce stress and address unhealthy lifestyles (Cascio & Boudreau, 2008). Research indicates that stress reduction in the workplace can lead to a reduction of health-related absenteeism rates (Avey et al., 2011), along with increased productivity (Limm et al., 2011). When it comes to those in leadership positions, having less stress is an “important indicator(s) of long-term resilience in the face of work demands, especially in the type of dynamically changing

and fluid conditions increasingly encountered in contemporary organizations,” (Holmberg, Larsson, & Bäckström, 2016, p. 157).

These results, along with prior research and quantitative data of this study, suggests that MBIs could be a valuable investment for organizations seeking to reduce health-related absenteeism costs, as well as a means for improving employee work-life balance. This is important, particularly in today's business environment where leaders are facing increasingly greater demands and greater challenges to a leader's health and well-being.

Impact of MBIs on a Professional Level. . On a professional level, this study suggests that classroom-based MBIs increase social and emotional effectiveness. This was evident from the primary themes which emerged from the interviews conducted among the experimental group which were that leaders experienced a greater sense of resilience, empathy, self-efficacy, emotional self-management and enhanced ability to empower others.

These outcomes have proven to contribute to a number of factors including employee well-being (Avey, Luthans, Smith, & Palmer, 2010; Luthans et al., 2012). This is important, particularly in today's business environment where leaders are facing increasingly greater demands and greater challenges to a leader's health and well-being. “Leaders need to constantly orient themselves in the organizational landscape and cope with the various emotional and stress-related pressures of diminishing stability and control,” (Holmberg et al., 2016, p. 155).

The results also correlate with findings that leaders are more effective with high levels of resilience, empathy, emotional self-management and empowerment of others. These emotional and behavioral modes contribute to a variety of outcomes at the individual and organizational level such as: employee engagement (Rego, Sousa, Marques, & Cunha, 2012), positivity among followership (Kerr et al., 2006; Roche et al., 2014; Zhu, Avolio, Riggio, & Sosik, 2011), better

relationships (Arnold, Connelly, Walsh, & Martin Ginis, 2015), confidence (Hollenbeck & Hall, 2004). Furthermore, leaders with social and emotional effectiveness, has been noted as predictors of authentic leadership (Luthans & Youssef, 2004). Having the ability to manage emotions and flexibility on when and how they are exhibited is a skill helpful for leaders, particularly when they interface with a variety of people throughout the day. Without this ability, it is likely for a leader to experience burnout (Krishnakumar & Robinson, 2015; Quaglia et al., 2014) .

From the results of this study, it is reasonable to conclude that classroom-based MBIs improve a leader's ability to be effective, even during dynamic or turbulent times in the workplace.

Recommendations

Several recommendations for learning and development professionals are provided. First, the present study indicated that classroom-based MBIs, combined with leadership skill training, can positively impact psychological capital for leaders. Based on the learnings reported out by the participants, it recommended that training and development leaders consider adding on a leadership competency component to a mindfulness-based program and dialogue on the application of the learning to their current role and organizational objectives.

Second, some participants anticipated that the MBI was a leadership development program based on the title of the experiment: "Mindfulness for Leaders". Some participants thought there would be more meditation involved. Therefore, it would be important to clarify what the program is and what it is not in any of the literature and in the classroom to avoid any confusion. Additionally, it is recommended to clarify the distinction between meditation and mindfulness, as the terms are considered analogous in the general public and in research literature. This could potentially help avoid participant dropout rates.

Third, it would be beneficial to extend the classroom time by at least thirty minutes to one hour. Twelve of the fifteen classroom participants commented that they would prefer more time to share experiences and learn from one another. During the experiential exercises, participants seem to become more engaged. Therefore, it is recommended to expand classroom time to 90 minutes, using the additional thirty minutes to build in more group interaction.

Fourth, it would be beneficial to continue to experiment with training designs. While the classroom-based MBI indicated numerous benefits suggesting higher levels of emotional intelligence (i.e., self-awareness, emotional management), it would be worth determining if the same MBI would yield similar results if provided virtually. Web conferencing technology, with break out room capabilities, may be able to simulate the dyad and triad experiences which were noted as having a great deal of value to participants.

Fifth, ten of the 15 participants verbally shared that they needed more time to integrate the learning in the classroom and felt rushed through the lessons. Thus, it is recommended to keep the learning concepts to a minimum per each class to allow more time for experiential exercises and small group dialogue.

Sixth, the outcomes presented in this study have a correlation to wellness and stress-reduction (i.e., emotional regulation, work/life balance, resilience). Therefore, organizations should consider MBIs as an ongoing wellness program, to help employees with stress reduction which in turn, has other meaningful health and work-related gains as indicated in the literature review of this study.

Seventh, while everyone was engaged and committed to the class, very few reported practicing meditation outside the classroom. Research tells us that long-term meditation offers long-term sustainable physiological benefits (Kang et al., 2013). While it may not be realistic to

expect leaders to maintain a regular meditation practice on their own, it is recommended that organizations offer weekly group meditation to participants, once the classroom portion of the MBI has concluded.

Limitations

The study had three key limitations. The first one was the lack of findings revealed from the active control group which participated in the virtual MBI. Outside of using a PCQ with this group, it would be valuable to conduct qualitative interviews to determine the impact and benefits of virtual delivery to determine its efficacy in relation to a classroom-based MBI.

The second limitation lies within the research available on MBIs in the workplace. There is much to explore to understand the application of MBIs in different work settings such as intact work teams, on followers of the participants, and within cross-functional work teams. In addition, the researcher experienced significant health challenges during the time of delivering the MBI.

The third limitation existed with the researcher herself who experienced serious health challenges during the delivery of the MBI. While participants experienced positive benefits and learnings from the experience, the researcher was limited in terms of providing optimal performance during the MBI and complete collection of data among all the participants.

Suggestions for Continued Research

Several suggestions for research are offered based on the present study findings. It would be helpful to study the different types of MBIs with different components to identify if classroom instruction is more effective than doing a blended program which includes other components such as classroom instruction with homework, along with virtual-based instruction. Designs should vary in terms of content, classroom time, homework and demographics. This

type of study would clarify the impact of various design elements, such as clarifying which activities develop which leadership competencies.

Since the PCQ and the MAAS are self-reported tools, a second suggestion would be to survey the followers of the leaders to get more feedback on actual differences made in the workplace among their leaders and their behavior. This would involve a secondary survey assessment.

A third suggestion, to understand the sustainable benefits of MBIs, is to conduct a post-intervention survey approximately six to 12 months following an intervention. This will provide additional knowledge for organizations considering mindfulness based training as a sustainable tool for leadership development and wellness programs.

Summary of Learning

In today's work environment, organizational leaders are looking at how to do more with less. Workloads, the rapid pace of technology, budget cuts, increased competition in the global marketplace can lead to significant strain. Leading others, while conducting one's own job responsibilities is another source of strain. Organizations are recognizing that stress can significantly impact morale, productivity, absenteeism, and retention rates – all costly to the employer. The present mixed study method examined the impact which mindfulness-based interventions have on the psychological capital (PsyCap) of leaders. Additionally, the study examined any additional impacts in which the classroom-based MBI had on leaders at the personal and professional levels.

24 leaders who volunteered to participate in a MBI were organized into a control (n=9) and experimental (n = 15) group. All participants took a pre and post-survey that measured their levels of hope, resilience, efficacy and optimism (PsyCap). The control group participated in an

8-week texting experiment where they received a 3-minute relaxation recording each week.

Despite the brevity of the virtual intervention, the control group indicated significant changes in one of the four areas of psychological capital: hope.

The experimental group participated in an 8-week mindfulness based program which consisted of classroom time, breathing techniques, experiential activities, group dialogue, breathing techniques, instruction on neuro-science and cognitive-based exercises. In addition to the mindfulness lessons, leadership competencies were also discussed including delegation, strategic clarity, listening skills, goal setting and compassionate leadership. Open dialogue at the end of each class provided participants an opportunity to relate the lessons to their current role and objectives of their organization. The experimental group exhibited statistically significant changes in all four components of psychological capital, indicating increases in levels of efficacy, hope, resilience and optimism. Qualitative analysis supported the quantitative data of the experimental group, showing evidence that classroom-based MBIs help leaders develop greater resilience. The qualitative data also indicated that classroom-based MBIs help leaders develop stronger emotional and social capacity. This was evident by the data which showed that the classroom-based MBI provided leaders with greater capacity to listen empathically, managing negative emotions more effectively, and empowering others by asking questions rather than directing or micro-managing. Additionally, leaders experienced higher levels of job efficacy.

These results are encouraging, emphasizing the value of classroom-based MBIs for the purposes of developing leaders and providing a tool for wellness in the workplace, particularly during the increasing rate of change and pace of work demands in today's working environment.

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Appendix A

Pre-Intervention Questionnaire

1. What is your occupation?
2. In what industry sector are your currently employed?

3. How many years have you been leading people?
4. How many direct reports do you manage?
5. What is your experience with mindfulness or mindfulness-based practices?
6. What expectations do you have from this study experience?
7. What aspect of your leadership is most important for you to develop and why?

Appendix B

Post-Intervention Interview Questions

1. Were your expectations from this study met? Please explain.
2. What content material did you learn from this study experience?
3. What did you learn about yourself personally at a personal growth level?
4. What did you learn about yourself at a professional level?

Appendix C

Psychological Capital (PsyCap) Questionnaire (PCQ)

Self-Rater Version

Instructions: Below are statements that 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 Agree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5	6

Hope

1. I feel confident analyzing a long-term problem to find a solution.
2. I feel confident in representing my work area in meetings with management.
3. I feel confident contributing to discussions about the organization's strategy.
4. I feel confident helping to set targets/goals in my work area.
5. I feel confident contacting people outside the organization to discuss problems.
6. I feel confident presenting information to a group of colleagues.

Efficacy

7. If I should get myself in a jam at work, I could think of many ways to get out of it.
8. At the present time, I am energetically pursuing my work goals.
9. There are lots of ways around any problem.
10. Right now, I see myself as being successful at work.
11. I can think of many ways to reach my current work goals.
12. At this time, I am meeting the work goals that I have set for myself.

Resilience

13. When I have a setback at work, I have trouble recovering from it, moving on.
14. I usually manage difficulties one way or another at work.
15. I can be “own my own”, so to speak, at work if I have to.
16. I usually take stressful things at work in stride.
17. I can get through difficult times at work because I’ve experience difficulty before.
18. I feel I can handle many things at a time at this job.

Optimism

19. When things are uncertain for me at work, I usually expect the best.
20. If something can go wrong for me work-wise, it will.
21. I always look on the bright side of things regarding my job.
22. I’m optimistic about what will happen to me in the future as it pertains to work.
23. In this job, things never work out the way I want them to.
24. I approach this job as if “every cloud has a silver lining.”

I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	1	2	3	4	5	6
I do jobs or tasks automatically, without being aware of what I'm doing.	1	2	3	4	5	6
I find myself listening to someone with one ear, doing something else at the same time.	1	2	3	4	5	6
I drive places on "automatic pilot" and then wonder why I went there.	1	2	3	4	5	6
I find myself preoccupied with the future or the past.	1	2	3	4	5	6
I find myself doing things without paying attention.	1	2	3	4	5	6
I snack without being aware that I'm eating.	1	2	3	4	5	6