THE RELATIONSHIP BETWEEN ATHLETIC TRAINING PROGRAM DIRECTORS’ SELF-REPORTED LEADERSHIP STYLE AND PROGRAM SUCCESS

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A Dissertation

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ABSTRACT

Chris Willis, Advisor

This dissertation explored the relationship between Athletic Training Program Directors’ (ATPDs) self-reported leadership style and Athletic Training Program (ATP) success. The metrics of determinants of ATP success were derived from data that the Commission on Accreditation of Athletic Training Education (CAATE) annual report seeks from all ATPs for continuing accreditation. Forty-six ATPDs from CAATE-accredited Athletic Training Programs (ATPs) completed the survey. Most ATPDs from this sample came from undergraduate ATPs, with a few responsible for graduate degree programs, and even fewer responsible for undergraduate and graduate programs. All ATPD participants completed the Multifactor Leadership Questionnaire (MLQ; Avolio & Bass, 2004), demographic information, educational history-related questions, years of experience as an ATPD, and other leadership roles/experience.

This study established that ATPDs’ self-reported predominant leadership style is transformational in nature. This study demonstrated a statistically significant relationship when examining ATPDs’ self-reported leadership style and ATP success within one of the four ATP success metrics examined: Percent ATS post-graduation employment. This study was not able to demonstrate a statistically significant relationship between ATPDs’ self-reported leadership style and percent ATP retention, ATP percent first-time Board of Certification (BOC) pass rate, or percent ATP graduation rate. The lack of significance in three of the four variables likely is due to the small sample of participants. This study was underpowered. Furthermore, additional variables likely should be considered when determining the relationship between ATPD leadership style and ATP success.
This dissertation is dedicated to my Mom and Dad, who instilled the value of education and hard work; to my sister and her family, for their support and letting me tag along to all the kids’ events even if I had to bring my computer to make sure I always was writing; to my husband John, for being so patient with me while I completed this education endeavor; to my mentors, who have challenged me to be the person I am today; and to Peanut (my dog) for the countless hours of writing that she endured when she rather would have been outside enjoying the nice weather. All of you played a part in supporting me, nurturing my education goals and aspirations. You all inspire me to give my best in all areas of life.
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Family

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_Dissertation committee_

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CHAPTER I: INTRODUCTION

With less than three decades of recognition from the American Medical Association (AMA), athletic training has grown significantly as an allied health profession. As the profession developed, the National Athletic Trainers’ Association (NATA) was established as an organization “to represent, engage and foster continued growth and development of the athletic training profession” (NATA, 2015, p. 1). Soon after the establishment of the national organization, an intentional curriculum was established in higher education programs wanting to provide athletic training educational programming (Delforge & Behnke, 1999). As athletic training programs (ATPs) quickly began to emerge, a real need existed to appoint the most qualified individual as athletic training program director (ATPD). Due to the rapid growth, studies have examined the educational histories, leadership preparation, and qualifications of those in the ATPD position. This profession, both clinically and educationally, is reaching a pivotal time of evolutionary change, and it is important to continue to examine the formal preparation and leadership background of the person at the helm of the ATP.

History of Athletic Training and Education

Athletic training dates as far back at the first Olympic Games (Prentice, 2014). In the late 1800s, Harvard University hired its first athletic trainer, James Robinson. At that time, no formal education or training was necessary to become an athletic trainer. The duties ranged from conditioning athletes to caring for injuries. Over the next 200 years, athletic training has evolved from a medical hobby to a medically recognized allied health profession (Prentice, 2014). Although athletic training was practiced for more than 200 years, only in 1950 was a national organization created for those in the field. This organization is known today at the NATA.
With the creation and growth of an official professional representative entity, athletic training continued to evolve, as did the requirements to become a trainer. However, the establishment of internal review and implementation of education requirements of becoming an athletic trainer have taken a much longer time to emerge. The first athletic training curriculum was approved by NATA in 1959, and 11 years later the first national certification exam was administered by NATA (Delforge & Behnke, 1999). Over the next 30 years, athletic training education experienced rapid growth in membership and practitioners, and also saw three educational reforms.

The establishment of the curriculum is even more contemporary, yet has experienced just as much change. More recently, a group of health care experts was enlisted to create the Joint Review Committee (JRC-AT). The JRC-AT deemed it necessary to adopt the ideas and policies of the Commission on Accreditation of Allied Health Professions (CAAHEP) in 1991. These entities were created to monitor the universities which housed ATPs, to ensure proper standards of program performance were being met (Delforge & Behnke, 1999).

In 2006, the JRC-AT decided to become independent from the CAAHEP and changed its name to the Commission on Accreditation of Athletic Training Education (CAATE) (caate.net). Shortly after, the NATA Foundation (NATAF) was established in conjunction with education entities to support and advance athletic training through research and education (natafoundation.org).

The NATA, BOC, CAATE, and NATAF cover each corner of athletic training. Assimilating in 2011, we now know this group as the Strategic Alliance (see Appendix A). Together, these four fundamental governing bodies monitor professional, academic, and scholarly activity while attempting to maintain effective professional organization. The Strategic
Alliance disseminates policy, change, membership, professional development, and many other opportunities back to the profession (NATA.org).

As the professional organizations grew, so did academic programs housing athletic training. Curriculum development within ATPs has grown parallel to the NATA, creating a surge of ATPs across the United States over the past 40 years (Odai & Doherty-Restrepo, 2012). Currently, there are more than 300 CAATE-accredited ATPs “in good standing” nationwide. Since the number of ATPs has quadrupled over the past 25 years, an unprecedented need for additional academic faculty and educational reform became evident (Odai & Docherty-Restrepo, 2012; Passauer, 2004; Peer & Rakich, 2000; Perkins & Judd, 2001; Weidner & Henning, 2002). With the surge of ATPs, “demand for high-quality faculty members to serve as the program directors (PDs) and fill the multiple roles and responsibilities of the position has increased” (Odai & Doherty-Restrepo, 2012, p.28). It is essential to evaluate how this rapid growth has impacted current ATPs and student outcomes.

**Educational Components of the Athletic Training Program**

Core faculty within each ATP who take part in program evaluation and implement change include the ATPD, Clinical Education Coordinator (CEC), and other supplementary faculty, depending on the size of the ATP. Formal program and student outcomes are evaluated annually by the CAATE. Several benchmarks and quantitative measures go into the CAATE annual report. A few key features of the annual report central to program outcomes: (1) percent of athletic training students (ATSs) who enter the ATP and matriculate each year; (2) percent of ATSs who pass the BOC exam on their first attempt; (3) percent of ATSs who graduate in each cohort; and (4) percent of ATSs finding gainful employment in athletic training after graduation.
Although each program must have an APTD and CEC, the ATPD has been identified as the individual responsible for the administration, organization, and leadership of all components of the ATP (Yellen, 2012). Over the past 30 years, athletic training has experienced three significant education reforms that ATPDs have had to understand and implement (Delforge & Behnke, 1999). Furthermore, anticipating degree changes that will be in full effect in 2022, it is imperative that we better understand the leadership styles of ATPDs in order to more appropriately evaluate the impact leadership has on program success. To date, no research is available examining the effects of ATPDs’ leadership and its impact on the various metrics evaluated within the CAATE annual report. With change on the horizon, time has come to address this gap in the research. To more accurately speak to the gap in research, the following section addresses current CAATE policy on ATP faculty makeup, role, and responsibilities, with a focus on how the position of the ATPD has evolved.

**Athletic Training Program Accreditation**

The CAATE publishes *Standards* for accreditation of ATPs as a policy and procedural manual for accredited programs to use as the guide to preparing entry-level athletic trainers. Additionally, these *Standards* are used to develop, evaluate, analyze, and maintain ATPs. The *Standards* also outline the roles and responsibilities of all essential athletic training program faculty.

The most recent CAATE Standards, published in 2012, include a more detailed description of the primary responsibilities of the ATPD in comparison to the previous 2006 Standards edition. The 2012 version of CAATE Standards includes additional responsibilities of ATPDs such as recruiting and student retention, student and faculty mentoring, program assessment, resolving internal conflicts, program innovation and monitoring change, academic
supervision of students and staff, abiding and applying CAATE regulations, preparing accreditation materials, and teaching (Perkins & Judd, 2001). It remains uncertain if the outlined duties of the ATPD will be amended with the new degree change.

The responsibilities of the ATPD outlined in the 2012 Standards align well with leadership and managerial duties. To have a well-established ATP, strong and effective leadership skills are critical for the ATPD (Odai & Doherty-Restrepo, 2012). Although research in other health care fields has legitimized the implication leadership has on program and student outcomes, little to no research has yet been conducted specific to ATPs. To date, leadership has been identified as a critical component within the profession (Erickson & Martin, 2000; Perkins & Judd, 2001; Kutz; 2008; Kutz, 2012; Laurent & Bradney, 2007; Nellis, 1994; Odai & Doherty-Restrepo, 2012; Yellen, 2012; Zuest, 2003). Although researchers have stated the importance of leadership in athletic training and official policies of accreditation management of the ATP are the responsibility of the ATPD, minimal research has been conducted examining the leadership style of the ATPD and its relationship to ATP success. Furthermore, the Standards governing athletic training educational programming, specific to the ATPD role, are abundant in responsibilities of the position and limited in personnel qualifications.

While an ATPD’s tasks are vast, their current qualifications include: (1) must be a full-time employee of the institution; (2) must have full-time faculty status, rights, responsibilities, privileges, and full college voting rights as defined by the institution’s policy that are consistent with similar position at the institution necessary to provide appropriate representation in institutional decisions; (3) supervisory responsibility that is consistent with other similar assignments within the degree-granting unit at the institution; and (4) must have release time
equivalent to similar health care programs in the institution or peer institutions (CAATE Standards for Professional Programs).

One of the many responsibilities of an ATPD is the recording, writing, and submission of an annual report and self-study to the CAATE for continued educational program accreditation. The self-study is a continuous quality management reporting system that allows the CAATW to review the performance of all ATPs. Three specific sections of the report seek data related to students and programmatic outcomes such as: (1) the percent of ATSs who pass the BOC exam on their first attempt; (2) the percent of ATSs who graduate; and (3) the percent of ATSs finding gainful employment after graduation. Furthermore, student retention is indirectly reported by gathering the number of ATSs who enter each year and drop from the ATP for various reasons. With the ATPD at the helm of the ATP, it is not clear what the prevalent leadership style is of ATPDs or if leadership style impacts this student-driven data. Research that has been reported regarding leadership styles in ATPs includes transformational and transactional leadership (Herzog & Zimmerman, 2009; Laurent & Bradney, 2007; Nellis, 1994; Odai & Doherty-Restrepo, 2012; Zuest, 2003), situational leadership (Levy et al., 2009; Meyer, 2002; Platt-Meyer, 2002), and servant leadership (Sauer, 2013).

Leone, Judd, and Colandreo (2008) stated that formal preparation to assume ATPD specific duties outlined within the Standards is poorly defined. Most athletic training educators are trained in specific content areas (e.g., pedagogy, biomechanics, exercise physiology, exercise science), during their academic careers (Leard, Booth, & Johnson, 1991). With a variety of educational preparation and currently no deliberate route to becoming an ATPD, individuals pursuing this career path may not be prepared for the complexities that make up their leadership responsibilities, unless they previously pursued opportunities of formal leadership preparation.
Traditionally, ATPDs have been appointed to this position based on professional reputation, exceptional teaching, and research, or simply by a vacant position needing filled (Passauer, 2004). It has been noted that ATPDs have organically discovered how to manage their leadership and administrative duties without ever receiving formal training in higher education administration and/or leadership (Leone et al., 2008; Odai & Doherty-Restrepo, 2012; Sciera, 1981; Yellen, 2012).

The responsibility of an ATPD is to thoroughly understand their role as it is outlined in the CAATE Standards. The description of qualifications needed to be an ATPD includes a wide array of responsibilities and aspects of leadership. Since leadership has been identified as an integral aspect in Athletic Training, ATPDs need to have a better understanding of their personal leadership style(s) or implementation strategies.

**Problem Statement**

Researchers have described differences between transformational and transactional leadership over many decades (Burns, 1978; Bass & Bass, 2008). Derived from understanding the importance leadership has on its environment, studies have been conducted in health care that identify the importance of academic administrators’ leadership styles; still, no investigation has been conducted specifically in athletic training related to leadership style of the ATPD and the effect it has on program success.

The number of CAATE-accredited ATPs in the United States has more than quadrupled in the past 25 years (Delforge & Behnke, 1999; Odai & Doherty-Restrepo, 2012; Passauer, 2004; Peer & Rakich, 2000; Perkins & Judd, 2001; Weidner & Henning, 2002; Yellen, 2012). This rapid growth led to an increased need for administrators to be at the helm of these ATPs (Odai & Doherty-Restrepo, 2012; Yellen, 2012). The ATPD plays an important role in organizational and
institutional leadership. Academic administrators such as chairpersons, coordinators and program
directors require a wide range of leadership skills to lead a department. Leadership skills include,
but are not limited to: communication skills, problem-solving skills, conflict-resolution skills,
cultural-responsiveness management skills, coaching skills, personal, programmatic, and people
leadership (Yellen, 2012). However, most ATPDs receive little or no formal training in these and
other leadership skills (Leone et al., 2008; Palmieri, 2005; Passauer, 2004; Perrin; 2005; Ray,

Zuest (2003) reported ATPDs perceived their leadership style to be more transformational
than transactional. However, their self-reported scores from the completion of the Multifactor
Leadership Questionnaire (MLQ) were centered more around transactional leadership. Zuest
(2003) reported ATPDs’ self-reported leadership styles do not match Bass’ (1994) “optimal”
profile due to their use of transactional leadership behavior (contingent reward) more frequently
than transformational leadership behaviors (idealized influence of attributes and behaviors,
inspirational motivation, intellectual stimulation, and individual consideration).

A better understanding of ATPDs’ self-reported leadership style needs to be introduced
and described related to student retention, BOC’s pass rate, student graduation rates, and student
job placement after graduation. A four-prong assessment offers a useful approach to better
understand student achievement, program success, and ultimately provide universities offering
athletic training education, increased appreciation, awareness, knowledge, and understanding of
leadership and its implications of programmatic success.

**Purpose of the Study**

The purpose of this study was to examine the relationship between ATPDs’ self-reported
leadership style and ATP success. By applying Bass’s Full-Range Leadership Model (Bass &
Avolio, 1994) (see Figure 1), it is possible to theoretically understand this phenomenon. Bass’s Full-Range Leadership Model is more thoroughly described in chapter II. This was accomplished through the evaluation of self-reported MLQ scores and four commonly evaluated ATP outcomes (success) metrics (percent ATP retention rate, percent ATP first-time BOC pass-rate, percent ATP graduation rate, and percent ATS post-graduation employment).

Figure 1

*Bass’s Full-Range Leadership Model*


**Research Questions**

1) What are the self-reported prevalent leadership styles (transformational, transactional, or passive/avoidant) among ATPDs from CAATE-accredited programs?

2) Is there a statistically significant relationship between ATPDs’ self-reported leadership style and ATP success?

**Theoretical Framework**

The theoretical foundation applied in this research study blended Bass’s Full-Range Leadership Model, the thoroughly studied Transactional, Transformational, and Passive/Avoidant
leadership styles assessed within the MLQ, and the relationship between leadership style and program success. The theoretical framework was used as a guide in analyzing the independent variable (leadership style), in relation to the dependent variables (program success metrics) (see Figure 2).

Figure 2

*Theoretical Framework Guiding the Research Study Adopted From Bass’s Full Range Leadership Model and the Multifactor Leadership Questionnaire*

Transactional and transformational leadership are two of the most frequently studied leadership styles in literature (Laurent & Bradney, 2007; Nellis, 1994). There are many other leadership theories such as trait theory, behavioral theory, and contingency theory, but all have been found to have transactional characteristics, since transactional leadership style primarily focuses on contingent rewards system (Burns, 2004; Kest, 2006; Shivers-Blackwell, 2004; Yukl, 2010). A transactional leadership approach involves a process where followers are motivated through obedience and fulfilling responsibilities based on conditional rewards they may receive from their leader (Avolio, Bass, Walumbwa, & Zhu, 2004). Providing definitive parameters for
objectives of achievement, followers know exactly what is expected. This style of leadership leaves little ambiguity as to what leaders’ intentions include for the followers or the organization. Through a leader’s positional authority, a transactional leader can be sure to clarify roles and responsibilities as well as hold followers accountable for their specific duties (Bass & Bass, 2008; Lussier & Achua, 2004; Yukl, 2010).

Although leader expectations of followers are clear and driven by technical standards, choosing to lead predominately through a transactional leadership approach disregards the benefits of leader motivation, inspiration, or intellectual stimulation (Burns, 2004). A contingent rewards system does not cultivate a strong enough environment that fosters meaningful relations. Given these limitations, transactional leadership styles are not seen as more desirable characteristics for achieving success beyond expectations (Bass, 1985; Burns, 1978).

Transformational leadership is an approach that utilizes motivation and inspiration toward followers to promote effective performance (Avolio et al., 2004). Transformational leaders inspire their followers beyond ordinary measure (Givens, 2008). By instilling organizational awareness, conscious reminders of future goals, and developing follower abilities through inspiration, both the follower and the setting in which they function are positively impacted by follower actions (Burns, 2004). Transformational attributes increase followers’ levels of motivations and aspirations (Bass & Bass, 2008; Humphreys & Einstein, 2003). Through positional authority, transformational leaders can positively and literally transform followers’ attitudes and behaviors (Burns, 2004).

The third construct used within Bass’ framework includes passive/avoidance leadership. Passive/avoidance leadership consists of a group of behaviors that only are exhibited when correcting followers is necessary, or in general, leadership behaviors retroactively only once
mistakes are discovered. Passive/avoidant leadership styles have been noted as the least effective in managing followers, and the least effective for organizational development (Avolio et al., 2004).

Transactional, transformational, and passive/avoidant leadership styles can be further distinguished on the basis in which they are theoretically demonstrated (Renda-Francis, 2012; Odai & Doherty-Restrepo, 2012; Zuest, 2003). For example, transactional leadership includes components such as: (a) contingent-reward, or the ability of the leader to explain the expectations of followers and persuade increased performance and (b) active management-by-exception, or the ability of a leader to maintain organizational standards to fulfill subordinate expectations with supervision. In contrast, transformational leadership is characterized as the leader’s: (1) charisma, or the ability to influence someone’s personality; (2) inspirational motivation, or the ability of a leader to inspire followers; (3) intellectual stimulation, or the ability of the leader to encourage follower creativity; and (4) individualized consideration, or the ability of the leader to create a supportive atmosphere (Polat, 2008). Rather than viewing transactional and transformational leadership in complete opposition, they should be viewed as juxtaposed to one another in their leadership approach. The findings of the earlier discussed Full-Range Leadership Model express the higher rates of success when utilizing a transformational leadership style (Bass & Bass, 2008).

Conversely, passive/avoidant leadership styles operate in absolute opposition to transaction and transformation leadership (Avolio et al., 2004). Also, referred to as non-leadership, this style includes behaviors such as: (a) passive management-by-exception, or the ability of a leader to maintain organizational standards to fulfill subordinate expectations without supervision and (b) laissez-faire, or the lack of actual leadership in which leaders minimally
supervise subordinates (Polat, 2008). Understanding the theoretical application of these leadership styles should be important to ATPDs in order for them to reflect and understand the implications their leadership has on the environment.

**Significance of the Study**

The study of leadership has long been examined in health care professions such as nursing, physician assistant, and physical therapy. Although athletic training has initiated the reporting on fundamental aspects of leadership, research needs to be conducted to better understand the impact that leadership styles have on ATP success, to start to close the gap between empirical research and practice.

Due to the rapidly changing and steady reform that takes place in health care (Kutz, 2012), it is imperative that those leading prospective health care professionals in the higher education setting have the necessary skills to disseminate educational information and simultaneously influence students in a way that positively impacts their educational journey as well as the overall success of the program they lead (Odai & Doherty-Restrepo, 2012; Yellen, 2012). This study will help contribute to the already limited empirical resources available on leadership in athletic training. Research that has been conducted thus far has shown that ATPDs possess desirable leadership behaviors and have acquired experiences that assist in their administrative duties (Odai & Doherty-Restrepo, 2013; Zuest, 2003). A similar study conducted in veterinary medicine indicated that there are some direct correlations to leadership style of Veterinary Technician Program Director and student success (Renda-Francis, 2012). These studies have provided further supporting evidence of the need to examine the concepts of leadership and how it can impact and environment. Overall, researchers have provided various points of reference and frameworks to integrate athletic training and education. Future standards
and operational program features will require ATPDs to better understand the impact their leadership styles have on program success to fully understand their effect on the education landscape.

**Limitations and Delimitations of the Study**

Limitations from the selected methodology for this research study include: Population characteristics, instrument limitations, research design, response bias, response rate, researcher bias, participant trust in responding to the MLQ and program success metrics, reliability & validity of the MLQ, ATPDs’ years of leadership experience that could influence their beliefs of leadership and its application, and the length/type of ATP each ATPD was reporting data from. While it is impossible to limit research limitations, it is critical to address them. This practice helps increase trustworthiness of results for the readers (Mertler & Vannatta, 2013).

In terms of population characteristics, the present study only focused on ATPDs and no other ATP faculty members. This study naturally intended to target a limited population. Of the 386 available, 52 started the survey, and 46 successfully completed it. Due to this response rate, this study had a very low response rate, therefore the results of the study may not be considered generalizable to all ATPDs.

Instrument limitation is related to the use of the MLQ (2004) in this study. The MLQ is a quantitative survey evaluating three leadership styles and nine dimensions of leadership. The instrument is not intended to label an individual with a particular style or behavior, but to identify them as more or less transactional, transformational, or passive/avoidant than the norm. The MLQ is one of the most often cited and used leadership surveys available (Avolio, Bass, & Jung, 1997; Tejeda, Scandura, & Pillai, 2001). There have been many factor analyses completed on the instrument to test and re-test the validity and reliability of the questions.
In terms of research design, low response rate is not ideal in correlation or multiple regression designs (Levine & Hullett, 2002). Therefore, it was difficult to find statistical significance during the analysis portion of the study coupled with a low sample size. The intended purpose of this research design was to be able to generalize the findings from this study to inform the currently existing body of knowledge.

Response bias within the survey instrument and participants’ self-reporting is based on the participants’ own perceptions of their leadership style. Self-reporting surveys are inherently open to potential response bias (Hamilton, 2003). Additionally, while requesting ATPDs to report retroactive data from previous annual reports on number of ATSs entering and graduating ATPs, there is potential for inaccurate data. Finally, regarding instrumentation bias, participants could have experienced response fatigue due to the length of the survey.

Researcher bias is related to my exposure to leadership education, previous research experience with similarly related topics, and perception of the importance that leadership has on program success has shaped my beliefs of these constructs and their relationship with each other. While it is impossible to eliminate personal bias, it is important to note the bias and practice transparency. Personal experiences, education, and encounters naturally shape my beliefs as a researcher.

When a research study is heavily dependent on self-reporting data, the researcher can only assume the responses to each answer are accurate, when in fact, ATPDs’ responses to questions regarding leadership style are open to exaggeration. Research has shown that people show a tendency to respond to questions in a manner that can interfere with the validity of their responses (Rooney & Gottlieb, 2007). These limitations have been categorized into socially desirable responses (SDR), acquiescent responding (AR), and extreme responding (ER). In other
words, research participants tend to respond to self-reporting surveys in a way that makes them look as good as possible, thus, they tend to under-report behaviors deemed inappropriate or less desirable. Self-report bias can threaten the validity of the research and is necessary to address its implications. There are however, methods in controlling all three SDRs. For example, using rational techniques for data collection and maximizing anonymity or confidentiality (Rooney & Gottlieb, 2007).

Advantages to self-reporting data include gathering information richness, motivation to report, and practicality. Motivation to report has been identified as another advantage to self-reporting methodology of data collection since self-preoccupation may lead to participants answering more diligently. Additionally, self-reporting research methods are very efficient and inexpensive. They can be administered to large groups and many different variables can be assessed (Rooney & Gottlieb, 2007).

In addition to the previously mentioned limitations, ATPDs’ level of leadership experience, formal leadership knowledge, and highest degree earned may have impacted ATPDs’ MLQ results. Walters and Kutz (2016) reported that ATPDs believed they were more prepared for their leadership duties based on the level of experience they had in previous clinical or academic positions. It also was discovered that ATPDs believe that their involvement in leadership positions was advantageous to current leadership practice. Ultimately, when comparing degrees to leadership readiness, ATPDs with an EdD reported higher levels of preparedness for leadership roles than ATPDs with a PhD (Walters & Kutz, 2016).

ATPDs were asked to report information from prior annual reports. Although this data is readily available to all ATPDs through eACCRED, it is possible that the data entry was
inaccurate on their part, or they did their best to guestimate the data that was being asked of them. Providing misinformation to the research study could alter final results.

The final limitation relates to the type of ATP that information was being reported from. Not all ATPs are the same degree-awarding program, nor are all ATPs the same length in semesters. Traditionally, ATPs are an undergraduate program that is anywhere from 6-8 semesters in length. Graduate ATPs are traditionally 3-6 semesters in length. The length in semesters is a factor to consider when you are examining retention and graduation rate. Research has shown that graduate ATPs have an inherently higher percent graduation rate and percent retention rate than undergraduate ATPs (Bowman, Dodge, & Mazerolle, 2015).

Delimitations of this study, or what the research could control for, included: collecting purely quantitative data collection; no intent to compare or contrast results of a completed MLQ from other members within the ATP such as the Clinical Education Coordinator, other faculty members, associates within the same department, college, or school; nor did this study intend to gather student perspectives regarding leadership practices of the ATPD and how their leadership may impact program success. A more holistic examination would provide a truer sense of the leadership style practiced by the ATPD.

To fully grasp extraneous variables related to ATP success or personal feelings from the ATPD regarding programmatic outcomes, it is important to appreciate the rich data that can be derived from qualitative responses regarding leadership. Also, gaining the perspective the leadership style used by the ATPD from colleagues or ATSs could provide a more comprehensive view of the leadership style in use. The final delimitation of this study includes the choice of dependent variables to examine. Program success is a broader term, so it is worth noting that more than four independent variables, referred to as success metrics in this study, can
capture the whole picture of what takes place at the programmatic level with leadership. The four independent variables were selected based on the CAATE annual report and what program information all ATPs must report for accreditation.

Finally, as it pertains to recruitment and incentivizing participants, there have been many recent academic changes in athletic training education. Prior to and during data collection, some ATPDs were voluntarily withdrawing accreditation to either transition their program to a Master’s degree or end their program. These program changes could have impacted the response rate or influenced the self-reported leadership scores.

The already limited literature available in athletic training specifically looking at ATPDs’ leadership style and the four program metrics provides an obvious gap. Therefore, it was necessary to establish foundational groundwork and available data on leadership styles of ATPDs. Currently, exploration of the importance of leadership in athletic training education is in its infancy, and the profession must develop additional resources in the future to provide a framework to the complex concept of how leadership style(s) impact program success in higher education.

**Definition of Key Terms**

To properly understand the context of this research, it was necessary to define key terms prior to examining them in the research and utilizing them in the data analysis.

1. Athletic Trainers: Health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions (CAATE, 2016)
2. Athletic Training Program Director (ATPD): The full-time faculty member of the host institution and a BOC Certified Athletic Trainer responsible for the implementation, delivery, and administration of the AT program (CAATE Standards, 2012)

3. Athletic Training Student (ATS): Any student enrolled in a CAATE-accredited ATP.

4. Board of Certification (BOC): The Board of Certification, Inc. was incorporated in 1989. The BOC establishes and regularly reviews both the standards for the practice of athletic training and the continuing education requirements for ATs. The BOC has the only national accredited certification program for ATs in the United States (BOC, 2016).

5. Commission on Accreditation of Athletic Training Education (CAATE): CAATE is recognized as an accrediting agency by the Council of Higher Education (CHEA). CAATE establishes the academic standards ATPs must meet to be considered an accredited program (NATA, 2016).

6. Passive/avoidant leadership: A type of leadership by which the leader avoids the responsibility of guiding employees and takes a hands-off approach to managing employees. This generally is acknowledged in the leadership literature today as an ineffective form of leadership (Avolio et al., 2006).

7. Multifactor Leadership Questionnaire (MLQ): A survey instrument developed by Bass and Avolio (2004) and designed to measure leadership behaviors utilizing a scale that classifies leaders as either passive/avoidant, transactional, or transformational. The survey also takes into consideration the fact that some leaders may situationally alter their leadership style given circumstances of the job.

8. National Athletic Trainers’ Association (NATA): The NATA is the professional membership organization for the profession of athletic training (NATA, 2016).
9. Transactional leadership: A type of leadership that involves leaders influencing employee behavior through a process of a contingent reward. Transactional leaders seek only to manage employees with offerings of rewards or punishments on the basis of employees reaching or failing to reach goals. (Yukl, 2010).

10. Transformational leadership: A type of leadership that involves a leader who inspires followers to personally change and to seek after follower goals of self-actualization and fulfillment. Bass and Avolio (2000) described transformational leaders as leaders who use ideals, inspiration, intellectual stimulation, and individual consideration to influence the behaviors of others.

**Summary of Remaining Chapters**

Relevant research exploring leadership in athletic training includes the positive correlation found between the exposure ATSs have on leaders who exhibited transformational leadership (Laurent & Bradney, 2007) and situational leadership (Meyer, 2002). Other research that continues to support the importance of leadership in athletic training includes Leone et al. (2008) and Yellen (2012), who analyzed general leadership qualities and knowledge ATPDs possess. However, a gap remains when wanting to know if ATPDs’ leadership style impacts program success.

More recently, researchers in athletic training have reinvigorated the important role leadership plays in the continued sustainability of the profession (Kutz, 2012; Little, 2012; Sauer, 2013; Walters & Kutz 2015; Yellen, 2012). Having a foundational understanding and consensus on the topic has created a sense of importance to note the implications leadership style has on its environment (Walters & Kutz, 2016). Ultimately, the responsibilities placed on an ATPD are those of leadership, so it is imperative to recognize, evaluate, and identify ATPDs’ leadership
experience, formal preparation to assume the ATPD role and leadership style. Upon evaluation of these various experiences, skills, and characteristics, we are more inclined to understand the impact the ATPD has on ATP.

The rapid changes taking place every day in health care will continue to inform change to the standards of clinical practice, job demands, delivery of academic content, and role delineation of those associated within ATPs. It is important to understand the leadership styles of ATPDs to enhance preparation of the next decade of educational changes in athletic training. For these reasons this research study will examine ATPDs’ leadership style and its impact on program success.

The remaining chapters will provide a review of relevant literature and information related to athletic training, education, and accreditation, descriptive characteristics of ATPDs, career pathways of ATPDs, the role of the ATPD, and research in other fields examining program directors’ leadership style and their impact on program success. Chapter III will consist of the methodology used, the various features of survey research, and a comprehensive representation of the MLQ. Chapter IV includes descriptive, analytic results from the study, and Chapter V will conclude with various discussion points as well as considerations for future research.
CHAPTER II: REVIEW OF LITERATURE

To provide a framework for an examination of ATPDs’ self-reported leadership style and their impact on ATP success, this chapter presents a review of the relevant literature to better represent concepts that are essential to this study. This chapter is organized into the following sections: (1) introduction; (2) history of athletic training and education; (3) athletic training program directors' career pathways, administrative preparation, and role delineation; (4) factors impacting program success; (5) leadership theories; (6) theoretical framework; (7) transformational and transactional leadership theory; (8) critique of leadership literature in athletic training education; (9) the survey instrument; and (10) summary.

Introduction

With the fast-paced working conditions and frequent change in society today, effective leadership and the development of educationally sound leaders is important in higher education (Kutz, 2012; Yellen, 2012). While leadership research is abundant and has been recognized as a critical skill in athletic training, limited research is available examining program leaders, such as ATPDs and their leadership style. Furthermore, no previous research exists examining ATPD leadership style and how it impacts program success.

Previous research in athletic training only has examined leadership on a superficial level as it pertains to the types of leadership athletic trainers portray and the importance of better understanding the complexities that leadership has on an environment (Katch, Tomczyk, Shinkle, & Berry, 2013; Kutz, 2010; Kutz, 2012; Kutz & Scialli, 2008; Laurent & Bradney, 2007; Odai & Doherty-Resprero, 2012). With the implications made in athletic training literature about the necessity and importance that leadership has in the profession, now is the time to explore
avenues of athletic training (education and administration) and further divulge the extent of leadership practices on its environment.

Leadership has been identified as an essential role within health care professions (Oliver, 2006). According to Rankin and Ingersoll (1995), management/leadership theory as an area of development has been ignored in athletic training. A better understanding of the complexities of leadership may provide stronger guiding principles for ATPDs to adopt when in a leadership position (Peer & Rakick, 2000). The multifaceted nature that the ATPD assumes in their leadership role further validates the idea of wanting to better understand how current practice impacts program success. With the regular changes that take place in health care and health care education, it is important to evaluate and understand the leadership style(s) of those who are at the helm of leading future health care providers.

**History of Athletic Training and Education**

A historical overview has been provided to better understand the evolution of the profession and academic journey that athletic training has experienced. Athletic training is no stranger to change. Comparing the long history of higher education to the short academic history of athletic training, it is important to revisit the major reforms, both professional and academic.

Under the leadership of William Newell, attention was heavily focused on the professional advancement of athletic training in the 1950s (Perrin, 2007). The NATA was established and marked the beginning of the growth and educational development of athletic training. Through the 1950s, fundamental steps were taken to build the future of the profession. Two significant events were the development of the Journal of Athletic Training in 1956 and the approval of the first ATP by the NATA in 1959 (Delforge & Behnke, 1999).
Until 2004, the NATA offered two routes to board certification. One of these routes required formal educational programming while the other offered a “hands-on” apprenticeship, experimental learning model supplemented by limited coursework (NATA Education Task Force, 1997, pg. 16). Two routes of certification were not well-received by lawmakers and other allied health care professions (Delforge & Behnke, 1999). To maintain credibility in the health care community, athletic training needed to change its method of certification to align with alike health care providers. In 1997, the CAAHEP stated students seeking certification must possess a baccalaureate and successfully complete a CAAHEP-accredited ATP (NATA Education Task Force, 1997).

One year after the recognition from the AMA, the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) was created. The JRC-AT, a committee on accreditation under CAAHEP, became an independent entity and changed its name to the CAATE. Presently, CAATE is the agency responsible for the accreditation of all ATPs and holds recognition from CHEA as the agency for ATP accreditation. The American Academy of Family Physicians (AAFP), The American Academy of Pediatrics (AAP), the American Orthopedic Society for Sports Medicine (AOSSM), and the NATA sponsor the CAATE. Together, these professional organizations collaboratively develop the Standards for entry-level ATPs (CAATE.net)

In the last 30 years, the total number of CAATE-accredited ATPs has more than tripled (Odai & Doherty-Resrepo, 2012). Just 25 years ago, only 84 accredited programs existed (Odai & Restrepo, 2012). This inflow of CAATE-accredited ATPs created an obvious need for additional educational faculty and people to lead the ATPs. This rapid need of athletic training educators and program directors warranted some inconsistencies with qualifications or thorough
examinations of prior education or leadership experience. For this reason, the following section will review available literature on ATPDs’ career paths and administrative preparation. The following section will also provide a detailed description of the roles and responsibilities of the ATPD as outlined in the CAATE Standards. It is worth noting that all ATPs are required to have one ATPD and one CEC. Although two core faculty are included in all CAATE-accredited ATPs, the ATPD has been identified as the individual responsible for the organization and administrations of all aspects of the educational program (Perkins & Judd, 2001).

As the profession has progressed, research has taken on many forms of interest. A historical view of research on leadership specific to athletic training can provide a heightened context to the existing gap of research on this topic. The following studies have made the most impact on where leadership research in athletic training is currently:

1. Leadership and management: Techniques and principals for athletic trainers (Nellis, 1994)
2. Athletic training management: Concepts and applications (Rankin & Ingersoll, 1995)
3. Athletic training clinical instructors as situational leaders (Platt-Meyer, 2002)
4. Leadership in the academy: Junior faculty as program directors (Palmieri, 2005; Perrin, 2005)
5. Leadership behaviors of athletic training leaders compared with leaders in other fields (Laurent & Bradney, 2007)
6. Leadership content important in athletic training education with implication for allied health care (Kutz & Scialli, 2008)
7. Leadership in athletic training and implication for practice and education in allied health (Kutz, 2009)

8. A conceptual framework for integrating leadership into clinical practice (Kutz, 2012)

9. Leadership is positively related to athletic training students’ clinical behaviors (Kutz, 2012)

10. Students’ perspectives of leadership development (Kutz, 2012)

11. Educational histories and formal leadership education of ATPDs (Walters & Kutz, 2016)

The initial research study conducted by Nellis (1994) began a fundamental process of analyzing leadership and how it applies to athletic training. Nellis (1994) was one of the earliest researchers published in the Journal of Athletic Training, outlining the differences between leadership and management in an athletic training context. This article was meant to serve as a guiding principle on how to be a good leader. Nellis (1994) summarized leadership into seven key components: (1) know yourself; (2) lead my example; (3) know your profession; (4) know your people; (5) loyalty, (6) creating mission statement; and (7) evaluation of practice. This article was a significant moment for athletic training and leadership research in the profession. Since then, leadership research in athletic training has continued to grow into more sophisticated conceptions such as leadership curricula for professional athletic training. The research within this study is following the evolutionary pursuit of continued advancement of leadership research in athletic training by examining ATPDs’ leadership style and their impact on program success. After examining the history of athletic training and education, it is important to comprehensively
evaluate ATPDs’ career pathways, administrative preparation, and role delineation to further our understanding of the intricacies involved within the leadership of the ATP.

**Athletic Training Program Directors’ Career Pathways, Administrative Preparation, and Role Delineation**

Leard et al. (1991) studied the career pathways of ATPDs and found that there is no “right or wrong way to become a program director,” (p. 214); alternatively, the researchers suggested a consensus preparatory finding centered around ATPDs having a terminal degree and a varied heuristic background. Most ATPDs’ formal educational background includes areas of study such as biomechanics, pedagogy, and exercise physiology (Leard et al., 1991). An additional aspect to ATPDs’ educational experience includes professional socialization, which involves, “learning skills, values, attitudes, and normative behaviors as they relate to the profession and specifically one’s job responsibilities.” (Leone et al., 2008).

According to the 2005 CAATE Standards and Guidelines for the Athletic Trainers, “The Program Director should have strong academic orientation and should have demonstrated a sincere interest in the professional preparation of athletic training students.” (p. 4). Secondary to finding descriptive educational qualities of ATPDs, six themes emerged during qualitative analysis regarding challenges of the position: Administrative, professional, personal, programmatic, student challenges, and other distractions were thematic issues reported by ATPDs (Leone et al., 2008). The available research suggests that ATPDs face administrative challenges that may not be conceptually understood due to the lack of formal education specific to the job demands of the ATPDs’ professional preparation (Passauer, 2004; Palmieri, 2005; Perrin, 2005; Rich, 2009). Ultimately, Leone et al. (2008) stated clearly defined, formal preparation of ascending into the position of ATPD were poorly defined.
An earlier study completed by Passauer (2004), examined the administrative preparation of undergraduate (UG) ATPDs. Passauer was interested in identifying perceived level of preparedness for their role as an academic administrator. Although Passauer noted that ATPDs regularly face administrative challenges, Palmieri (2005), Perrin (2005), and Rich (2009) agree that increased demands have been placed on the ATPD in the last decade.

Jennerich (1981) stated several academic administrators at that time found themselves in their position with little knowledge of the duties associated to the position, rather than being vetted through a comprehensive hiring process that would examine specific administrative and leadership experience and/or qualifications (Perrin, 2005; Perrin & Lephart, 1988; Rich, 2009). A crude amount of research is available on more recent evidence of ATPDs’ administrative preparation.

Walters and Kutz (2016) did find that most ATPDs self-report having administrative preparation through leadership experience in various settings. They also reported that the personal experiences encountered throughout their career were of more value than formal educational experiences toward preparing them for administrative practice. Reported leadership experience ranged from appointed committee positions within the profession to general community involvement. Few ATPDs reported formal exposure to leadership education or training, but also reported that a formal understanding of leadership could have positive implications on their leadership practice.

The roles and responsibilities of an ATPD first were identified in 1981, when ATPDs were described as both clinicians and educators (Leard et al., 1991; Perrin & Lephart, 1988; Sciera, 1981). Clinical work primarily included the health care management of student-athletes, while the education portion included didactic instruction and hands-on learning in the athletic
training room (Perkins & Judd, 2001). Other miscellaneous assigned duties of an ATPD included but were not limited to: (1) faculty member; (2) student recruiter; (3) clinical supervisor/preceptor; (4) educational coordinator; and (5) liaison between the academic program and accrediting agency (Leard et al., 1991).

With emerging roles from the education side of the position, ATPDs began to feel new pressures, encounter different administrative dilemmas, and experience frustration with the incongruity of their role in the ATP (Perkins & Judd, 2001). The feelings of frustration did not go unnoticed, which led to a formal structuring of the current roles and responsibilities of an ATPD provided by the CAATE Standard for the Accreditation of Professional Athletic Training Programs (i.e., Standards).

Peer and Rakich (2000) revealed a truer depiction of the complexities that go into accreditation and continuous quality improvement in athletic training education. Peer and Rakich (2000) made it a point to say, “the role of the faculty, particularly department chairs and program directors, includes transformational leadership aspects (p. 192),” and effective leadership is critical to accreditation and continuous quality improvement. The need for transformational leadership as an integral part of ATP success was introduced almost 20 years ago, but little has been done since to further address this notion. This leaves a large gap in wanting to better understand what programmatic leadership looks like in present day to better inform the future.

Perkins and Judd (2001) surveyed 113 ATPDs to better understand the complexities of being an ATPD. The researchers found a multitude of issues surrounding the roles and responsibilities of being an ATPD. Dilemmas of ATPDs included: (1) tenure and promotion; (2) decreased clinical involvement; and (3) the perception ATSs have about ATPs seemed to be problematic. Perkins and Judd’s findings were quite similar when compared to earlier research.
(Perrin & Lephart, 1988; Sciera, 1981). The roles and responsibilities of the ATPD have steadily increased over the past 20 years, creating a greater workload and job strain. More apparent now, is the pressure associated to ATPDs in tenure lines. Tenure and promotion is the most frequently cited dilemma of ATPDs (Perkins & Judd, 2001; Perrin & Lephart, 1988; Sciera, 1981), which sheds some light on the complexities of the ATPD role.

The historical analysis of available literature on the role of the ATPD possess strong insight and understanding of the details about these individuals. Being an ATPD has its challenges, but if we better understood the leadership taking place, we may be able to have a clearer depiction of strengths or weaknesses of an ATP, how some ATPs experience more success than others, or simply know if the leadership within the ATP has an effect on a number of variables. To date, Zuest (2002), Odai & Doherty-Restrepo (2012), and Yellen (2012) have specifically investigated leadership behaviors of ATPDs. The ATPD has been identified as the individual responsible for the administration, organization, and leadership of all components of the ATP (Yellen, 2012), which is why an investigation must take place to further examine what impact these leaders have on their environment.

Thus, we have researched and discussed the history of athletic training and education as well as ATPDs’ career pathways, administrative preparation, and role delineation. The umbrella term of “program success” also has been used, but not yet described. Many factors can be considered metrics of ATP success. To provide the clearest sense of higher education success as well as investigating quantifiable programmatic information, program success will include the following reported metrics: (1) percent ATP retention rate; (2) percent ATP first-time BOC pass-rate; (3) percent ATP graduation rate; and (4) percent ATS post-graduation employment. Two of the four areas are reported by ATPDs within the CAATE annual report that is submitted yearly
for continuation of accreditation. Additionally, CAATE accredited ATPs must include the ATPs’ BOC pass rate on the institutional website. Program success is a critical aspect of higher education. The topic addressed in this study involves the relationship between ATPDs’ self-reported leadership style and ATP success as measured by percent ATP retention rate, percent ATP first-time BOC pass-rate, percent ATP graduation rate, and percent ATS post-graduation employment.

These measures were chosen to align the research with the standards in which the CAATE finds to be significant measures of program outcomes. Previous literature has examined three of the four areas as silos (Dodge, Mitchell, & Mensch, 2009; Renda-Francis, 2012; Phegley, 2014; Yellen, 2012) but not in combination with one another. By examining all four independent variables simultaneously, a holistic understanding of these variables can be provided. The following section on issues impacting programmatic success provides a review of literature on each aspect previously mentioned.

**Issues Impacting Program Success**

In this research study, program success has been defined as: (1) percent ATP retention rate; (2) percent ATP first-time BOC pass-rate; (3) percent ATP graduation rate; and (4) percent ATS post-graduation employment. Assessing all four variables was important. Using a multipronged approach to examine program success provides a more inclusive understanding of the variables. The CAATE annual report also validates these measures as essential program outcomes.

**Retention Rate**

Health science education degree programs experience the lowest retention rate when compared across all other professional degree disciplines (Hedl, 1987; Luadcinia, 1997). A
longitudinal study was conducted examining university records of dropouts from an undergraduate program in allied health education (Hedl, 1987). On average, 46 percent of students enrolled in an allied health care degree program dropped out during or immediately following their first semester (Crosling, Heagney, & Thomas, 2009). Existing data related to factors that impact student retention currently include poor academic achievement, academic advising and/or faculty support, student demographics, and dissatisfactions/boredom in class (Crosling et al., 2009).

More recently, student personal characteristics have been a focal point of success retention (Hirschy, Bremer, & Castellano, 2011). The second aspect impacting retention included program characteristics such as resources, facilities, structural/organizational arrangement, and staff members, and program admissions process). The third factor included interaction between program and student (i.e., student integration into the program from both academic and social perspective) (Dodge et al., 2009). Positive relationship between faculty and students were found to be “crucial to student retention and success” (Wells, 2007, p. 4).

In athletic training, researchers not only consider retention from the didactic perspective, but also how students’ clinical integration is a direct cause of their willingness to pursue an athletic training degree (Young, Klossner, Docherty, Dodge, & Mensch, 2013). Clinical integration relates to the method of socialization used to prepare students for their clinical rotations. More recently, this process has become less haphazard and more intentional with the implementation of student mentorship programs and early observation requirements (Dodge et al., 2009). Researchers theorized that the more intentional the socialization process is, the most likely a student will stay engaged in their educational programming (Dodge et al., 2009; Young et al., 2013).
For this research study and literature review, the focus will remain on the didactic component of athletic training education and how ATSs encounter and interact with AT faculty (i.e., the ATPD). The most recent literature states ATPDs should work to provide a stimulating learning atmosphere to help motivate students, which should help mitigate student retention (Bowman et al., 2015). This research supports the idea that leadership is important to retention, but not how leadership styles of ATPDs positively or negatively impact program success.

**Allied Health National Board Exam Pass Rates**

Like medicine, physical therapy (PT) and occupational therapy (OT), athletic training (AT) employs educational practices that culminate in a student’s preparation of a national board certification. When comparing BOC exam scores to other allied health professions, ATPs have a considerably lower national pass rate overall (Erickson & Martin, 2000). As of 2010, minimal research has been conducted examining the relationship between leadership and ATP success as it relates to ATP first-time BOC pass rates. Since 2007, the BOC exam has been reformed to meet new CAATE education *Standards*. Before 2007, it was suggested that student demographics, grade point average, and previous exposure to health care fields were all predictive of their success on the BOC (Middlemas, Manning, Gazzillo, & Young, 2001). Of the theorized predicting variables, leadership characteristics were not considered (Turocy, Comfort, Perrin, & Gieck, 2003).

Other considerations impacting first-time BOC pass rate that currently exist includes student academic achievement (Harrelson, Gallaspy, Knight, & Leaver-Dunn, 1997), the order in which content is delivered (Hungerford, 2012), as well as the examination of various routes to certification, prior to the elimination of the internship (Starkey & Henderson, 1995). The relationship between BOC and how entry-level professionals perceived confidence upon length
of athletic training clinical education has also been explored (Little, 2012), and an analysis of BOC first-time attempt pass rates in athletic training professional programs when compared to undergraduate ATP first-time pass rates (Phegley, 2014). Overall, allied health professions have assessed factors impacting first-time national board pass rates, but none considered the leadership style of those educating students.

Graduation Rate

Many correlating relationships have been explored examining graduation rates in higher education; however, it remains an untouched area of research in athletic training (Bowman et al., 2015). Nearly one out of five four-year institutions graduate less than one-third of its first-generation, full-time degree-seeking students within six years (Carey, 2004). Various explanations addressing these statistics include students’ departure from school for personal reasons, job demands, institutional dissatisfaction, or generally not fitting into campus life (Kuh, Kinzie, Schuh, & Whitt, 2005).

The most abundant research available related to institutional graduation rates comes from the community college sector. Specific to leadership, Price and Tovar (2013) found heightened student engagement when institutional faculty members adopted transformational behaviors such as encouraging students to work with peers outside of class, creating opportunities for students to tutor one another, and committing time for students to discuss ideas in or outside of class. Fostering a positive didactic environment was critical to the students’ perseverance throughout their college experience. Kuh et al. (2005) echoed a similar message, stating a campus community that fostered guiding principles focused on students’ success and placed significant value on students’ long-term success. Kuh et al. (2005) also found that institutional leaders were
primarily responsible for cultivating a transformational campus culture, and for ensuring faculty buy-in on the idea of assisting students to succeed.

With the obvious gap in literature available, specific to the implications leadership has on college students’ graduation rate, the question that remains is how leadership directly or indirectly impacts this component of program success. While a variety of factors have been discovered that influence student’s graduation likelihood, an equal number of factors have been presented regarding institutional leadership, and the types of environments that stimulate students to want to succeed (Kuh et al., 2005) However, there is still a need to explore this notion future.

**Post-Graduation Employment**

Determining if a relationship exists between ATPDs self-reported leadership style and ATS post-graduation employment is the fourth variable that was addressed in this study. In athletic training, a focus on post-graduation employment has been examined, but not related to ATPD leadership style. Bowman et al. (2015) compared undergraduate to graduate ATSs and their percentage of career placement. This study looked less at the impact leadership had on student job placement, and more on the likelihood of students remaining active in the profession of athletic training if they graduated from a graduate program.

To better understand the impact leadership has on post-graduation employment in athletic training, we should review a few recent pieces of literature. Bowman, et al., (2015) found that the interaction between ATSs and faculty and/or ATPDs, often is a source of frustration. These suboptimal interactions had a negative impact on the ATSs’ outlook of the profession. Student relations was one of the four reasons ATSs had lower postgraduate job placement. Athletic training educators and ATPDs should be encouraging positive personal interactions between
students to successfully model the benefits of a career in athletic training (Bowman et al., 2015). In addition to fostering positive influential relationships with ATSs to help promote successful post-graduation rates, Dodge et al (2009) found that intentional mentorship programs also increased the likelihood of students’ satisfaction within the profession. By choosing to have a mentorship program, you are indirectly displaying positive, influential, transformational-like leadership characteristics as a structure within the program.

The emphasis of the previous section is to examine the variables that constitute program success. Importance also is placed on the synthesis of how student retention, allied health national certification pass rates, student graduation rates, and student employment can be impacted by those leading the students and how different leadership approaches have impacted environments in the past. The comparison of program success variables against program leadership has yet to be done in athletic training. To better understand the many leadership theories in existence, the next three sections provide a conceptual overview.

**History of Leadership**

Over the last three decades, leadership has been a well-discussed topic in many professions. Due to the vast application of leadership practice and research, many definitions of leadership have been published. Finding a singular point of approval with a multidisciplinary approach has been difficult (Avolio & Luthans, 2005; George, Sim, McLean, & Mayer, 2007). According to George et al. (2007), a universally applicable definition of leadership has been agreed upon in any professional arena. This detail alone creates controversy. Fiedler (1971) stated, “There are almost as many definitions of leadership as there are leadership theories – and there are almost as many theories of leadership as there are psychologists working in the field.” (p. 1). Most leadership scholars would likely agree on the broader sense that leadership can be
defined in terms of (1) an influencing process that occurs between a leader and follower(s), and
the resultant outcomes; (2) how this influencing process is explained by the leaders’ behaviors,
follower perceptions and attributes of the leader; and (3) the context in which the leading occurs
(Antonakis & Day, 2012). Due to the vastness that leadership theory can embody, the following
section is dedicated to a historical timeline of development of leadership theory research and the
more often cited theories.

Leadership Theories

As previously noted, several leadership theories have been established, researched,
published, criticized, and supported as sound leadership approaches. The evolution of leadership
theory tends to follow trending societal schemas from as early as the 19th Century with the Great
Man Theory (Hershey, Blanchard, & Johnson, 2001) to the more contemporary Transactional-
Transformation theory (Maslanka, 2004). It is possible to striate out the broader categories such
as trait, behavioral, situational, transactional, and transformational. Since no concrete definition
exists, these theories were developed with the intent to streamline a set of characteristics,
behavior, and elements for each theory (Kest, 2006). An analysis of key leadership theories will
be discussed, while transformational, transactional, and passive/avoidant leadership will be
explained in greater detail since they are the basis of this study.

Trait Theory

One of the earliest leadership theories includes trait theory (Kest, 2006; Polat, 2008). This
theory distinguishes a leader’s specific characteristics and attributes. Trait theory suggested that
characteristics such as energy level and friendliness were essential for positive influential
leadership (Hershey et al., 2001). The traditionally accepted belief was that not all individuals
possessed these qualities; only those who had them would be considered potential leaders
(Hershey et al., 2001). Over 50 years of research concluded it to be particularly difficult to produce one personality trait or set of qualities that can be used to delineate leaders versus non-leaders. This theory does not imply that certain traits will have positive or negative effects on the facilitation of leadership. No set of traits have been identified that can predict success of failure within trait theory (Hershey et al., 2001).

As trait research continues to be empirically examined, Bennis and Naus (1985) conducted a longitudinal study with 90 exceptional leaders and their followers. They could identify four common traits/competencies shared by all 90 leaders. The traits included: (1) the ability to communicate a sense of outcome, goal, or direction that attracted followers; (2) the ability to create and communicate meaning with a clear understanding; (3) the ability to be consistent and reliable; and (4) the ability to manage oneself by knowing personal qualities within the limits of one’s strengths and weaknesses (Bennis & Naus, 1985). Although there is an abundance of information related to trait theory, it is important to consider the possible oversimplification trait theory offers (House & Aditya, 2001).

**Behavioral Theory**

The limitations of trait theory led researchers to shift their focus to the behavioral aspects of leaders rather than features of their personality. Research on leader behaviors for job performance, motivation, and follower satisfaction was the initial premise that behavioral leadership theory measured (Derue & Wellman, 2009; House & Aditya, 2001; Polat, 2008; Settleworth, 2009). Settleworth (2009) described behavioral approaches of leadership through directive and participative patterns. Directive leadership is related to the leaders’ concern for task orientation while participative leadership deals with the involvement of the followers in organizational development (Renda-Francis, 2013).
Directive leadership has been used synonymously with autocratic leadership. Autocratic leadership is the practice of subordinates carrying out responsibilities that are expected of them while abiding by the instruction of the leader (Renda-Francis, 2012). Autocratic leadership has been found to be harmful to follower satisfaction across a variety of settings and organizations due to its dictatorial nature (Polat, 2008). If autocratic leadership were on a spectrum, participative or democratic leadership would be situated in opposition.

In contrast to directive leadership, participative leadership is when leaders and followers share collective decision-making tasks (Kest, 2006). Leaders utilizing a participative approach encourage followers to take part in decision-making. Participative leadership has been found to be a motivating leadership style, allowing for equal representation of leader and follower ideas, collaboration, and teamwork (Renda-Francis, 2012). Similar to trait theory, behavioral theory alone cannot solely determine effective and successful leadership due to a number of contextual factors within any context (Kest, 2006). Measures have been taken to continue the expansion of additional and alternative leadership since it has been made clear that no singular approach to leadership has been deemed effective.

**Situational Theory**

While trait theory examines characteristics of effective leadership, and behavioral theory takes a more personalized approach to leader behaviors, both have limitations. Another commonly accepted leadership theory includes situational leadership theory (Hershey et al., 2001), which has been defined as a choosing a style to match a specific situation. Ultimately, the approach taken is dependent on the needs at that time (Barrett & Beeson, 2002; Kincaid & Gordick, 2003; Martin, 2003; Moxley & Pulley, 2004) and the degree to which the leader’s situation is favorable for influence (Fiedler, 1971).
There are many situational leadership theories: Tannenbaum-Schmidt Continuum of Leader Behavior, Fiedler’s Contingency Model, House-Mitchell Path-Goal Theory, Vroom-Yetten Contingency Model, and the Hershey-Blanchard Tridimensional Leader Effectiveness Model. The premise of situational leadership is “different people need to be led differently” (Hershey et al., 2001, p. 108). Situational leadership approaches include three entities: (1) the leader; (2) the follower(s); and (3) the situation (Hershey et al., 2001). Situational leadership requires the leader to behave in a flexible manner, appropriately diagnose the environment, and then applying the most suitable leadership style needed by the follower based on the followers’ readiness for the task (Hershey et al., 2001). Another aspect important to situational leadership is consistency. Rather than using the same behavior for multiple situations, the leader chooses the appropriate behavioral leadership approach per each encounter (Hershey et al., 2001). Again, situational leadership theories offer another framework, however situational leadership remains difficult to study due to the complex variables that every situation brings to the table. As researchers continued to develop a vast array of leadership theories, transactional and transformational leadership theory steadfastly remains a prevalent and accepted approach to leadership across many disciplines and settings.

With the three broader theories including trait theory, behavioral theory and situational theory, other theories have been well-established, researched, and applied with a more applicable perspective. Keeping in mind leadership involves the leader and followers, Bass’s full-range leadership model examines the leadership style applied, how that will most likely impact the followers and the environment. Also, the full-range leadership model emphasizes that leadership style should be thought of as a spectrum rather than singular in application. By applying a full range of leadership styles, you are a more effective and successful leader (Avolio et al., 2004).
Theoretical Framework

The focus of this research study is on the notion that Bass’s full-range leadership (transactional, transformational, and passive/avoidant leadership styles) practiced by leaders will produce varying environmental outcomes. The full-range leadership model describes passive/avoidant leadership as being the least effective leadership style when compared to transactional and transformational leadership. In contrast, transactional and transformational are more active and effective leadership styles (Avolio et al., 2004).

In the following section, transactional and transformational leadership theories are discussed in detail. It is important to consider leadership theories that have remained resilient over time, such as transactional and transformational leadership theory. We must also consider why this theory has been the one of the more globally applied theories identified as impacting a variety of environments (Diax-Saenx, 2011). Transactional and transformational leadership continues to be a relevant leadership approach to organizational success over the past 40 years. This theory also is very applicable in health care due to the reoccurring changes that take place. Change creates complexity, and strong leadership helps form an adaptive organization ready for change (Burk, 2014).

Transactional and Transformational Leadership Theory

The development of transactional and transformational leadership theory was drawn upon literature from trait, behavioral, and situational leadership. When Burns (1978) first introduced transactional and transformational leadership, key differences were related in terms of what leaders and followers should offer each other. More specifically, transactional leaders focus an exchange of rewards or retributions that occur between leaders and followers (Bass, 1985; Burn,
Transformational leadership offers a purpose that exceeds temporary goals and focuses on inherent needs of the leader and followers (Givens, 2008).

Bass later expanded Burns’ concept of transactional and transformational leadership by integrating the paradigm to be complementary rather than polar constructs, and recognizing both styles may be linked to the achievement of desired goals (Lowe, Kroeck, & Sivasubramaniam, 1996). Although it has been encouraged to view transactional and transformational leadership as complimentary, research has shown that transformational leadership is the more desirable of the two for achieving positive organization outcomes (Bottery, 2001; Kezar & Eckel, 2008; Lauren & Bradney, 2007; Murphy, 2005; Ross & Gray, 2006; Sahin, 2004; Spinelli, 2006).

Diaz-Saenz (2011) stated transformational leadership is “the single most studied and debated idea with the field of leadership.” (p. 299). Four factors of transformational leadership emerged through the evolutionary process of Burns’ ideology of viewing the leadership styles in opposition to Bass’s ideation of a continuum approach, which included: (1) idealized influence; (2) inspirational motivation; (3) intellectual stimulation; and (4) individualized concern (McCleskey, 2014).

Bass’s full-range leadership model classifies leadership as being transactional, transformational, or passive/avoidant. Transactional leadership deals with contingent reward reinforcement, where followers are rewarded for completing certain tasks (Hershey et al., 2001). Transformational leadership involves inspiring followers to work for the greater good of the organization (Bass & Avolio, 1994). Passive/avoidant leadership creates an environment where followers work independently, with little to no direction (Avolio et al., 2004).

Theorists have advocated that transformational leadership is the preeminent type of leadership that can respond adequately to the new-age rapid changing global environment
More specific to the examination of this research study, higher education program success was heightened when school leaders utilized transformational leadership behaviors (Renda-Francis, 2012; Ross & Gray, 2006). For further individualization of transactional leadership and its two associated sub-parts (contingent reward and active management by exception), transformational leadership has been developed into idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Bass & Riggio, 2012).

Idealized influence includes behaviors such as follower pride by being associated to the leader (Hughes, Ginnett, & Curphy, 2006). Often synonymous with charisma, idealized influential leaders go beyond individual self-interest and make personal sacrifices to benefit followers. Inspirational motivation incorporates the optimistic leader (Avolio et al., 2004). This attribute focuses on the leaders’ ability to think optimistically about the future while articulating a compelling vision for the future (Hughes et al., 2006). Intellectual stimulation is a set of behaviors where the leader seeks different perspectives when problem solving and encourages the followers to think non-traditionally (Hughes et al., 2006). Individualized consideration is the fourth and final component of transformational leadership which ultimately includes a leader who spends time mentoring and teaching followers (Hughes et al., 2006). Bass (1985) stated that transformational leaders have more positive relationships with their followers and make a concerted effort to improve their organization. Organizations where leaders were more transactional tended to be less effective in comparison to transformational leaders (Nellis, 1994).

A definite need for leadership to be researched in athletic training has been identified (Kutz, 2004; Rankin & Ingersoll, 2006; Ray, 2005; Odai & Doherty-Restrepo, 2012; Yellen, 2012). Although leadership has been researched for several decades, limited information remains
available on the impact leadership has on ATP success. To date, only a handful of studies have utilized intentional methods to assess various types of leadership styles in athletic training. More specifically, the MLQ has the capabilities of examining full-range leadership behaviors.

**The Multifactor Leadership Questionnaire**

The MLQ is one of the most popular and often-used surveys in leadership research (Avolio, et al., 1999; Tejeda, Scandura, & Pillai, 2001). The MLQ is a self-reporting survey instrument composed of 45 items that identifies and measures transactional, transformational, and passive/avoidant leadership styles. The current version of the MLQ has been condensed since its initial creation, due to a substantive amount of research revealing threats to validity, reliability, and weaknesses particularly in the transformational leadership model (Yukl, 2010). Ultimately, Tepper and Percy (1994) performed confirmatory factor analysis (CFA) to examine the overall structure of the original and found that outcome measures within the transformational assessment of the survey were highly tentative and overlapping, causing a reconfiguration of the instrument to its current form (Tajeda et al., 2001). Within the three leadership styles being assessed (transactional, transformational, and passive/avoidant), there are two transactional outcome scales, five transformational outcome scales, and two passive/avoidant outcome scales.

The first transactional outcome measure includes *Contingent Reward (CR)*, where leaders provide clear objectives for followers and reward them (tangible or psychological) upon completion. The second transactional behavior is active *management-by-exception (MBE-A)*. *MBE-A* is a behavior where the leader actively searches for deviation from policies or standards to prevent wrongdoing. The first transformational outcome scale includes *inspirational motivation (IM)*, which deals with the leader’s ability to articulate a vision, consequently, by the leader viewing the future as positive, the followers are motivated. *Idealized Influence (attributed)*
(II-A) refers to charismatic leadership features. In turn, the positive and upbeat personality of the leader fosters an environment of trust and confidence for the followers. Idealized Influence (behavior) (II-B) emphasizes the combination of mission and values as well as acting upon them. Next, Intellectual Stimulation (IS) includes the leader challenging followers’ beliefs in order to generate solutions. Lastly, Individualized Consideration (IC) is defined as the consideration of each follower’s needs and developing their individual strengths (Avolio et al., 2004).

Passive Management-by-Exception (MBE-P) leadership includes intervening only after mistakes have been detected or benchmarks are not met. An even more passive leadership approach includes Laissez-Faire (LF) leadership, simply defined as the absence of leadership. LF leadership is categorized as a non-leadership when compared to transactional and transformational leadership.

Earlier research has shown these three leadership styles to be strongly linked with individual and organizational success (Avolio & Bass, 2006). The MLQ also addresses steps taken by leaders to influence behaviors and attitudes of others, and whether leaders address emotional, ethical, and institutional standards. To date, the small amount of research specific to athletic training and the leadership styles assessed within the MLQ does provide some insight into the implications leadership style has on the environment they are applied (Zuest, 2003).

Summary

Allied health care professionals have recognized and examined the need for leadership (Katch, Tomczyk, Shinkle & Berry, 2013; Kutz, 2004; Kutz, 2008; Kutz 2010; Kutz, 2012; Laurent & Bradney, 2007; Meyer, 2002; Nellis, 1994). Researchers have found a correlation between leadership styles and professional performance (Kutz, 2012; Laurent & Bradney, 2007; Meyer, 2002; Nellis, 1994). Although leadership has been noted as an important aspect to the
practice of athletic training, little is known about individual leadership styles of those who lead ATPs, such as ATPDs. The type of leadership within an organization can affect the sustainability, advancement, or deterioration of that organization (Tourangeau & McGilton, 2004).

To remain a competitive and legitimized allied health care profession, athletic training continues to rapidly reform and grow. With the winds of change persistently on the heels of athletic training and education, leadership is going to be a critical element to the sustainability of all ATPs across the nation. If ATPDs have been identified as the individual responsible for the organization and administration of all aspects of athletic training educational programming (Perkins & Judd, 2001), it is critically important to better understand their leadership styles and if they are impacting program outcomes such as student retention, BOC pass rates, student graduation rate, and student employment after graduation.

By fault, the ATPD is in a position of influence, power, and leadership (Odai & Dohety-Restrepo, 2012, Yellen, 2012). We must further identify the impact the ATPD has on program success. Allied health will continue to change and educational demands on students will continue to increase. Athletic training must take a step back and evaluate if the current leadership practice is efficient and effective, and to what extent leadership practices impacts educational programming. This will allow us to have further awareness on leadership and more insight into the variability of program success.
CHAPTER III: METHODOLOGY

The purpose of this study was to examine the relationship between ATPDs’ self-reported leadership style and ATP success. This chapter provides detailed information regarding the methodology for this research proposal.

Problem Statement

The ATPD serves as a leader to faculty, students and staff within the athletic training programs (Yellen, 2012). Being in a leadership role, ATPDs can impact the environment and/or people around them positively or negatively (Odai & Doherty-Restrepo, 2012). Researchers have only begun to examine ATPDs’ leadership. Thus, research investigations specific to ATPDs and leadership include focused attention on: Administrative preparation of undergraduate ATPDs (Passauer, 2004); descriptive quality of ATPDs (Leone et al., 2008); selected leadership characteristics of ATPDs (Odai & Doherty-Restrepo, 2012); leadership behaviors of ATPDs (Yellen, 2012); and educational histories and formal leadership experience of ATPDs (Walters & Kutz, 2016). What researchers have not yet examined is the relationship between ATPDs leadership styles and ATP success.

The individual responsible for ascertaining the organization, administration, and success at the programmatic level is the ATPD (Yellen, 2012). Although leadership has been comprehensively examined in many other allied health professions, minimal research has been conducted on leadership in athletic training (Kutz, 2010; Laurent & Bradney, 2007; Nellis, 1994).

Since the ATPD has been identified in the literature as the individual responsible for the inner-workings of the ATP, the relationship between ATPD leadership style and ATP success is worth investigating. Many ATPDs have been identified for their position through conventional
organic administrative and leadership capabilities, but potentially lack the theoretical understanding that leadership has on organizational outcomes or success. Over the past 20 years, formalized leadership training and education have rapidly increased but has not yet made an intentional grounding into athletic training, nor have athletic training educators or ATPDs been required to display personal knowledge of its theoretical impact (Odai & Doherty-Restrepo, 2012; Passaur, 2004; Yellen, 2012).

**Research Questions**

1) What are the self-reported prevalent leadership styles (transformational, transactional, or passive/avoidant) among ATPDs from CAATE-accredited programs?

2) Is there a statistically significant relationship between ATPDs’ self-reported leadership style and ATP success?

**Research Design**

A quantitative, causal-comparative research design was used in this study. The purpose of a causal-comparative research design was to determine if a cause (leadership style) and effect (program success) relationship existed (Gay & Airasian, 2003). Ultimately, causal comparative research designs examine the causative relationship between independent and dependent variables, while the causation is suggested or implied (Mertler & Vannatta, 2013). They measured leadership styles (transactional, transformational, and passive/avoidant) as the independent variable and explored their relationship between ATPDs’ self-reported leadership style and program success. Program success, the dependent variable of interest in this study, is operationalized as: (1) percent ATP retention rate; (2) percent ATP first-time BOC pass-rate; (3) percent ATP graduation rate; and (4) percent ATS post-graduation employment.
A causal-comparative research design was chosen, due to the nature of the independent variable. The independent variable, or self-reported leadership style of the ATPDs, naturally occurs and cannot be manipulated by the researcher. No intervention took place on participants since the intent of this research design was to examine a phenomenon that already existed (Gay & Mills, 2009).

**Methods and Procedures**

In the following subsections, detailed descriptions of the methods employed by this research study are provided. Additionally, a comprehensive description of the target population and procurement of participants, the survey instrument used, various components of data collection, limitations and ethical considerations have been provided.

**Participants and Recruitment**

The population used in this study was limited to all ATPDs employed at institutions that housed CAATE-accredited ATPs in the United States. Institutions were identified using the list of accredited programs posted on the CAATE website (www.caate.net). At the time of the study, a total of 386 CAATE accredited ATPs (n = 320 undergraduate, n = 62 graduate, n = 4 residency) were listed. To make the results reliable, trustworthy, and generalizable to the population, a variety of methods were utilized to increase participant response rate.

Bickart & Schmittlein (1999) stated a 50 percent response rate is regarded as acceptable for social science research. The target goal of 116 ATPDs was not met even after using multiple strategies to increase response rate, which could be due to a number of variables. This number was not arbitrarily concluded, but rather an estimated average when comparing response rate from other athletic training related research, in order to avoid nonresponse error (Bickart & Schmittlein, 1999).
Upon HSRB approval (see Appendix B), 386 ATPDs were emailed the MLQ. In addition to the MLQ, program outcomes questions and demographic information were collected. The justification was to survey only ATPDs and no other ATP faculty, or ATSs. The purpose of targeting a singular audience was to focus on ATPDs’ self-reporting leadership style. Furthermore, focusing on this population adhered to the objectives of this study, which is to gain a clearer understanding of ATPDs’ self-reported leadership style(s) and the relationship to program success. Renda-Francis (2012) instilled this notion by stating that program directors in general play a critical role in education leadership and need a wide range of leadership skills to be successful and effective in their role.

Measures

Dependent Variable

Program success. As previously stated, program success itself can be a vague and ambiguous concept. For this reason, four program metrics were considered the parameters of measurement when analyzing what constitutes program success: (1) percent of ATP retention; (2) percent of ATP reported first-time pass rate; (3) percent of ATP graduation rate; and (4) percent of ATS post-graduation employment in athletic training. These four measures were chosen to align with the program outcomes measured in the CAATE annual report completed by ATPDs for continuing education program accreditation. In keeping with a similar method of data reporting for the CAATE annual report, all measures were reported as percentages. These metrics could be accessed through ATPDs’ eACCRED login, to which only ATPDs could access. All participants were prompted that they would need to have access to this information to complete the survey.

Prior to the study, ATPDs did not have to exclusively report the percent of ATSs retention or graduation rate. To calculate these values, ATPDs reported how many people entered the
program over a three-year period, and how many ATSs either dropped their academic program due to a leave of absence or academic and non-academic related issues. Once raw scores from the total number of students who entered the ATP was divided by the total raw score of students who matriculated, a percent was found for ATS retention. This process also was repeated for the dependent variable of student graduation rates. The graduation rate could be calculated by taking the total number of ATSs who entered the program and dividing the raw score of ATSs entered by how many graduated.

**Independent Variable**

**Leadership style.** The different styles evaluated included transactional, transformational, and passive/avoidant leadership, which come from Bass’s full-range leadership model. The three leadership styles have their respective behaviors associated with each category. For the purposes of this study, the focus was to determine ATPDs’ self-reported leadership style. A more detailed description of the three styles and their sub-parts is available in this chapter.

**Instrumentation**

**Multifactor Leadership Questionnaire**

To gain open access to this survey, the MLQ Portable Document Form (PDF) version was purchased for licensure from Mind Garden, Inc. For this research study, a total of 386 electronic MLQ surveys were purchased. The MLQ (see Appendix C) is a self-reporting survey instrument composed of 45 items that identifies and measures transactional, transformational, and passive/avoidant leadership styles. The MLQ is one of the most popular and often-used leadership surveys in leadership research (Avolio, et al., 1997; Tejeda, Scandura, & Pillai, 2001). The MLQ was chosen for this investigation because of the three widely accepted types of
leadership styles assessed within the survey, and their empirically established correlation to organizational outcomes.

The current version of the MLQ has been condensed since its initial creation, due to a substantive amount of research revealing threats to validity, reliability, and weaknesses particularly in the transformational leadership model (Yukl, 2010). Tepper and Percy (1994) performed confirmatory factor analysis (CFA) to examine the overall structure of the original MLQ and found that outcome measures within the transformational assessment of the survey were highly tentative and overlapping, causing a reconfiguration of the instrument to its current form (Tajeda et al. 2001).

Of the 45 items in the MLQ, 36 have been identified as corresponding back to transactional, transformational, or passive/avoidant leadership style. The last nine questions are specific to outcomes of leadership (Avolio & Bass, 2004). Outcomes of leadership include three categories: (1) extra effort; (2) effectiveness; and (3) satisfaction with leadership. The outcomes of the leadership section (questions 37-45) were completed by ATPDs, however not analyzed for statistical significance since followers can more appropriately complete this section (Avolio & Bass, 2004).

Within the three primary leadership styles (transactional, transformational, and passive/avoidant leadership), subcategories of leadership behaviors are housed. For example, transactional leadership includes the sub-leadership behaviors referred to as Contingent Reward (CR) and Management by Exception-A (MBE-A), while transformational leadership behaviors include Idealized Influence of Attributes and Behaviors (II-A or II-B), Inspirational Motivation (IM), Intellectual Stimulation (IS), and Individual Consideration (IC). Lastly, the passive/avoidant subcategory includes Passive Management-By-Exception (MBE-P) and Laissez-
Faire (LF) leadership behaviors. Specific descriptions of these nine leadership behaviors will be provided in more detail in the following paragraphs.

These three types of leadership styles have been shown in prior research to be strongly linked to individual and organizational success (Avolio & Bass, 2004). The survey addresses such variables as what the types of rewards leaders used, if leaders focused on ideals, inspiration, and intellectual stimulation, and if leaders engaged in group-oriented behaviors or individual considerations of followers (i.e., students). The MLQ also addresses steps taken by leaders to influence behaviors and attitudes of others and whether leaders address emotional, ethical, and institutional standards.

**Transactional leadership style and behaviors.** The first transactional outcome measure includes CR, where leaders provide clear objectives for followers and reward them (tangible or psychological) upon the completion of the task. The second category of behavior is known as MBE-A. The leader specifies standards, observes, and actively searches for deviation from formal policies or standards to prevent wrongdoings.

**Transformational leadership style and behaviors.** The first transformational outcome scale includes II-A. This leader possesses charisma and instills pride in others for being associated with them, while going beyond self-interest for the good of the group. In turn, the positive and upbeat personality of the leader fosters an environment of trust and confidence for the followers. Second, II-B emphasizes the combination of organizational mission and values as well as acting upon them, creating strong sense of purpose. Third, IM centers around the idea that transformational leaders can articulate a vision, and by the leader viewing the future as positive, followers are motivated. Fourth, IS relates to the leader’s ability to challenge follower beliefs to foster an environment where followers are included in the process of addressing problems and
finding solutions. Lastly, IC dominant leaders pay attention to followers’ specific needs for achievement and growth by acting as a coach or mentor, and help followers develop individualized strengths.

**Passive/Avoidant leadership style and behaviors.** The third category of the MLQ is more suitably labeled a behavior than style (Avolio & Bass, 2004). Passive/avoidant leadership behavior includes MBE-P and LF. Simply put, MBE-P leaders fail to interfere until problems become serious or wait for issues to go wrong before acting. LF leaders avoid getting involved when important issues present themselves or are absent when needed. LF also is categorized as a non-leadership style when compared to transformational and transactional leadership. When MBE-P and LF are grouped together, they are considered passive-avoidant leadership.

Using the MLQ allowed the ATPDs to be viewed as predominately transactional, transformational, or passive/avoidant leaders. To date, the minimal volume of research specific to athletic training and leadership styles of any athletic training educators does not provide enough insight into the implications each type of leadership has on the environment they are applied (Zuest, 2003).

**Validity and Reliability**

A critical aspect of survey research includes the trustworthiness of the results analyzed from the instrument used. Understanding the MLQ’s validity and reliability will help increase trustworthiness of the results discussed in Chapter 4. Validity and reliability have their respective subcomponents of measure that further endorse survey instruments as trustworthy.

Validity refers to the effectiveness and accuracy of the instrument in gathering the anticipated information (Mertler & Vannata, 2013). The validity of the MLQ has been extensively researched and has demonstrated strong results (Avolio, et al., 1997; Tejeda,
Scandura, & Pillai, 2001). When examining aspects of validity, one must then consider external and internal consistencies. Internal validity pertains to the ability to draw conclusions between predictor and outcome variables of a study (Mertler & Vannata, 2013), whereas external validity indicates the representativeness and generalizability of the research results of the study.

Reliability of a survey instrument refers to the consistency of the items intended to measure a variable or construct (Mertler & Vannata, 2013). Test or retest measurements, internal consistencies, and reliability measurements are all ways in which the MLQ has been assessed for instrument reliability. Internal reliability for the MLQ has been measured using Cronbach’s alpha coefficient, which can range from 0-1. The accepted rule indicates the higher Cronbach’s alpha coefficient is for each construct, the higher the reliability (Mertler & Vannatta, 2013). The internal consistency of the MLQ indicates a range of Cronbach’s alpha of .74 to .84 for each leadership factor (Avolio & Bass, 2004).

**Data Collection**

This study used one self-online response questionnaire consisting of 45 items that can identify and measure three central leadership styles, developed by Avolio and Bass (2004). All types of ATPs were considered for this study (professional, post professional, and post-professional residency). ATPDs working at CAATE-accredited ATPs (N=386) were contacted via email with a link to the MLQ through the Qualtrics survey platform. An initial contact email was made in mid-December 2016, while two follow-up emails were sent after the initial distribution of the survey to maximum participation. The first follow-up email occurred two weeks after initial contact was made, and the second follow up email occurred four weeks after initial contact was made. The recruitment email contained an explanation of the research study, procedures, benefits of participation, that the study is voluntary in nature, any risks associated to
participation, procedures for protecting anonymity, length of anticipated participation, and contact information of the primary investigator.

Data collection relative to the four program success metrics was reported by ATPDs via the CAATE annual report. Each year, ATPDs complete the CAATE annual report. This report includes the collection of information such as how many students were accepted into the ATP, how many students graduated from the ATP, the ATP percent first-time-BOC pass rate, and the percent of ATP graduates employed in athletic training-related jobs. Since ATPs are set up as cohorts, each ATPD had to report how many ATSs entered the ATP and how many left the program for one of the following reasons: (1) student took a leave of absence; (2) student left the program due to non-academic reasons; (3) student left the program due to academic reasons. Retention and graduation rate could then be calculated based on these reported numbers.

**Data Analysis**

Analysis of the results from the MLQ instrument measured respondents’ predominant leadership style from one of the following: Transactional, transformational, or passive/avoidant. Demographic information also was collected and reported to gather descriptive information of the general characteristics of the population. Demographic data included gender, ethnicity, professional credentials, degree level of ATP the ATPD led, the ATPDs’ highest level of education, years of experience as an ATPD, any formal leadership training, current program accreditation standing, and if a program is on probation.

The dependent variables were measured by calculating the percent of ATP retention, percent ATP first-time BOC pass rate, percent ATP graduation rate, and percent ATS post-graduation employment. The dependent variable of ATP retention was calculated by asking ATPDs to report the total number of students who entered their ATP in 2011, 2012 and 2013.
Then, ATPDs reported how many students either dropped their academic program due to a leave of absence or academic and non-academic related issues. Once raw scores from the total number of students who entered the ATP was divided by the total raw score of students who matriculated, a percent was then found for student retention. This process also was repeated for the dependent variable of raw values of ATS graduation rate by taking the total number of ATSs who entered the program, noting the number of semesters, and dividing the raw score of entered ATSs to how many ATSs graduated. Participants could respond directly to the ATPs’ percent first-time BOC pass rate and percent of ATSs who found employment after graduation on a scale from 0 percent to 100 percent. A continuous scale allows the most accurate data to be reported, rather than using a set interval scale (Pallat, 2016).

Presentation of participant demographic, educational, and leadership information has been provided through frequencies and percentage value of responses. Specific educational information regarding ATPDs’ various degrees earned was also collected.

To follow best practices in analyzing participants’ dominant leadership style, raw MLQ scores were converted into percentiles for individual scores based on self-rating via the guidelines presented in the MLQ manual. Once raw MLQ scores were converted into percentiles, data were transformed by grouping each of the leadership styles to examine which leadership style was most prominent among ATPDs, both individually and overall. To answer the second research question, a multiple linear regression approach was used to examine if there was a statistically significant relationship between ATPDs’ self-reported leadership style and percent ATP retention rate, percent ATP first-time BOC pass rate, percent ATP graduation rates, and percent ATS post-graduation employment.
Multiple regression was the chosen method of analysis to determine the relationship between the dependent variables, based on the ATPD’s self-reported leadership style. Multiple regression was used because the intent of the research study was to examine continuous dependent variables (program success) and three independent variables (leadership styles). This method is based on correlation, but allows for a more sophisticated exploration of the relationship (Pallant, 2016).

When completing the statistical analysis of the data, to ensure accuracy of results, assumptions of multiple regression were examined. Assumptions include: multicollinearity and singularity, investigating outliers, homoscedasticity, normality, and linearity. Multicollinearity and singularity refer to the relationship among the independent variables. Outliers are simply data points that are very high or very low scores. Linearity entails the line of best fit.

Homoscedasticity is the variance of residuals about the predictor variables being similar enough for all predictor scores (Pallat, 2016). An ancillary assumption includes sample size of the data. This research study yielded a smaller sample size than required for multiple regression results to be strong. Due to the sample size, and the fact that this study lacked in power to adequately detect statistical significance, it was also important to consider effect size (Levine & Hullett, 2002). An estimate of the magnitude of effect size can tell us how strongly two or more variables are related, or how much of a difference exists between the groups (Levine & Hullett, 2002). A thorough and comprehensive discussion of the results has been provided in chapter IV.

SPSS for Windows (version 20.0) was used to code, score, and analyze the data. Tests of the hypotheses for each research question were decided based on the widely accepted guide of a \textit{priori} alpha less than or equal to 0.05; alpha is a measure of the probability of a Type 1 error. Type 1 error, also known as a false positive, is the error of rejecting a null hypothesis when it is
true (Ramsey, 1980). In other words, Type 1 error is the incorrect rejection of a true null hypothesis. It was assumed there was a 95 percent chance of no Type 1 error when using a standard a priori of $p = 0.05$.

**Data Source**

This original research study was conducted utilizing only ATPDs from CAATE-accredited ATPs. The information to contact the ATPDs was gathered from the CAATE website, where all ATPD contact information is housed. The survey instrument was used to collect data and demographic information and sent electronically through the Qualtrics survey platform. The recruitment email contained a link to Qualtrics, which routed participants to the online survey. Participating subjects completed the survey online, which upon competition was automatically stored in the Qualtrics database. Raw data were housed within Qualtrics and then transferred to an Excel Spreadsheet and SPSS for analysis.

**Ethical Considerations**

This research study followed Bowling Green State University’s HSRB policy and procedures to ensure protection of participants. All research studies include some inherent risk. It was the responsibility of the primary investigator to mitigate potential harm to respondents through ethical assurances by obtaining informed consent, protecting the subject’s rights to privacy, ensuring confidentiality and maintaining honesty in collaborating with other professional colleagues.

This study adopted methods of practice to ensure subject privacy and anonymity. These measures were taken to reduce the potential harm of the participants. To protect the privacy of the ATPDs, the survey results were kept confidential. Demographic information was collected by the participants, but the message was made very clear that the information and data being shared
was safely stored and accessible by the primary investigator and research advisor. Additionally, when the results were reported, all identifiable information will be excluded for added confidentiality. Institutions the ATPD is representing also will remain confidential. Only the researcher and researcher’s advisor and methodologist had access to information and raw data. A coding system was assigned to identifiable information to secure confidentiality.

Although administration of survey research poses minimal risk, participants were instructed that they may experience psychological stress. If an ATP is not meeting CAATE accreditation Standards, this could be interpreted as a direct result of inadequate or inferior leadership when compared to other CAATE accredited ATPs. At a time when most ATPs are making degree changes, it is possible that some ATPDs experienced personal attachment to success or unsuccessful program outcomes.

**Summary**

Chapter III outlines the methodology used for this research study by exploring relationship between ATPDs’ self-reported leadership style and ATS success (percent ATP retention rate, percent ATP first-time BOC pass rate, percent ATP graduation rates, and percent ATS post-graduation employment). The examination of this relationship is valuable to the advancement of the profession. Further understanding the predominate, self-reported leadership practiced by the individuals that have been identified as the leader of the ATP (Yellen, 2012) will provide a more congruent theoretical framework in determining the extent leadership has on its environment and how it can impact different areas of program outcomes. Lastly, reflectively examining and being aware of how to adopt efficient and effective leadership practices may further improve programmatic outcomes and student success.
The information presented in the first three chapters is provided to give the reader a comprehensive understanding of the nature of the problem and the importance of conducting the study. The remainder of this document, chapters IV and V, provide the statistical results, summary of findings and implications for future research. It is important that the results are brought full-circle with the findings of the study and the theoretical implications presented in the earlier chapters.
CHAPTER IV: RESULTS

The purpose of this study was to explore the relationship between ATPDs’ self-reported leadership style and ATP success. This chapter features both the demographic and inferential results of the study. Included in this analysis are the descriptive statistics of the MLQ results, description of the participants, instrument internal reliability, results from the research questions, and chapter summary.

Descriptive Statistics of MLQ Results

The MLQ contains 45 Likert-style questions, which categorize nine leadership behaviors and three overarching leadership styles (Avolio et al., 2004). The questions are grouped together according to their representation of each leadership style. How the participant self-reported his or her style dictated a result of being more transactional, transformational, or passive/avoidant. Within each category of leadership style resides various behaviors. Transactional behaviors include CR and MBE-A, transformational behaviors include the Five Is; II(A), II(B), IM, IS, and IC, and passive/avoidant behaviors include LF and MBE-P. In addition to the leadership styles and behaviors, participants reported leadership outcomes. These outcomes include Extra Effort (EE), Effectiveness (EFF), and Satisfaction (SAT). For the purposes of this study, only leadership styles transactional, transformational, and passive/avoidant were recorded for analysis. Appendix D provides sample questions and corresponding leadership behaviors to each question.

Description of the Participants

The target population for the study consisted of all ATPDs from CAATE-accredited ATPs. This population included ATPDs from undergraduate, graduate, and post-graduate ATPs. The CAATE website houses all ATPDs’ contact information. All 386 ATPDs were recruited to be a part of the study. Of the potential 386 participants contacted, 52 started the survey and 46
successfully completed all of it. It was important that only completed surveys were used for data analysis because those who did not complete a portion of the survey did not provide the information needed to answer the research questions.

In addition to completing the MLQ, participants were asked to complete demographic questions that included total years of experience as an ATPD, years of experience at current institution, highest degree earned, degree concentration, formal leadership education or exposure to CEUs centered around leadership, gender, and ethnicity. In terms of total years as an ATPD, the sample had a minimum of a half-year of experience and a maximum of 37 years ($M = 9.5$, $SD = 6.4$). ATPDs reported their years of experience in their current position, which included a minimum of half a year of experience and a maximum of 23.0 years ($M = 9.0$, $SD = 7.8$). The sample consisted of 23 males, 20 females, one non-gender conforming individual, and two who did not disclose their gender. Ethnicity of participants included 40 Caucasians, two Asians, two who did not disclose, one Hispanic, and one African-American. Concerning education, 30 participants reported having a terminal degree, while 16 reported having a Master’s degree. Reported degrees varied in concentration. Most ATPDs reported terminal degrees (65.2 percent), while all other ATPDs reported having a Master’s degree (34.8 percent). View Tables 1 and 2 for more information.
Table 1

Summary of Participant Demographics, Leadership Education, and Career Experience (N=46)

<table>
<thead>
<tr>
<th>Categorical Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>50.0</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>43.5</td>
</tr>
<tr>
<td>Non-gender conforming</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>40</td>
<td>87.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>African-American</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Did not disclose</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Highest degree earned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s degree</td>
<td>16</td>
<td>34.8</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>30</td>
<td>65.2</td>
</tr>
<tr>
<td>Formal education in LDSHP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>22</td>
<td>47.8</td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>52.2</td>
</tr>
<tr>
<td>Acquired CEUs specific to LDSHP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>26</td>
<td>56.5</td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>43.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year of Experience as an ATPD</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total years exp. as an ATPD</td>
<td>9.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Total years ATPD at current institution</td>
<td>9.0</td>
<td>7.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CEU Activity in Credit Hours</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># of credit hours of formal LDSHP edu.</td>
<td>8.1</td>
<td>26.5</td>
</tr>
<tr>
<td>Professional conference</td>
<td>3.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Professional workshop</td>
<td>2.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Professional lecture</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Home study programming</td>
<td>2.7</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Note: LDSHP = leadership  
ATPD = Athletic Training Program Director  
CEU = continuing education units
Table 2

Summary of Participant Degree Types and Concentrations (N=46)

<table>
<thead>
<tr>
<th>Categorical Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctoral Degree Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EdD</td>
<td>16</td>
<td>34.8</td>
</tr>
<tr>
<td>PhD</td>
<td>11</td>
<td>23.9</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>6.5</td>
</tr>
<tr>
<td>Doctoral Degree Concentrations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>6</td>
<td>13.0</td>
</tr>
<tr>
<td>Curriculum &amp; Instruction</td>
<td>4</td>
<td>8.7</td>
</tr>
<tr>
<td>Physical Education – concentration in AT</td>
<td>3</td>
<td>6.5</td>
</tr>
<tr>
<td>Exercise Physiology</td>
<td>3</td>
<td>6.5</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>23.9</td>
</tr>
<tr>
<td>Masters Degree Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>11</td>
<td>23.9</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Masters Degree Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Physical Education</td>
<td>7</td>
<td>15.2</td>
</tr>
<tr>
<td>Exercise Science- concentration in Athletic Training</td>
<td>4</td>
<td>8.7</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Description of Athletic Training Program Success Metrics

The second research question examined the relationship between ATPDs’ self-reported leadership style and ATP success. For the purposes of this study, four program metrics were asked to be reported by ATPDs to set definitive parameters around ATP success. These measures included: (1) percent ATP retention rate; (2) percent ATP first-time BOC pass rate; (3) percent ATP graduation rates; and (4) percent ATS post-graduation employment. Of these four ATP outcomes, two are asked exclusively within the CAATE annual report; the percent ATPs first-time BOC pass rate and percent of ATSs’ post-graduation employment. The two other program outcomes evaluated in this study, percent of ATPs retention and percent ATPs’ graduation rate, were not exclusively reported in annual accreditation reporting at the time of the study.
Not all ATPs are the same academic length in semesters. Semester lengths were reported, and ranged from four to five semesters to eight to nine semesters. For this reason, it was important to request ATPDs report the following metrics over a span of seven years, between ATSs entering and graduating the ATP. ATPDs were asked to access current and previous CAATE annual reports to derive this information. Considering the differences in ATP semester length, it was possible to evaluate four academic calendar years of individual ATPs’ program outcomes. To simultaneously examine outcomes across all ATPs, the 2015-2016 academic year was used. It was possible that ATSs may not have matriculated or graduated with their original cohort, and were put into another cohort by their ATPD, which would mean they were not represented accurately in the reporting of ATP retention and/or graduation rates by ATPDs. For instance, when calculating individual ATP retention, in some instances retention and graduation rate were over 100 percent.

To capture the two quantitative program metrics not exclusively reported in the CAATE annual report, ATPDs were asked to report the total number of ATSs who entered the ATP between cohort years 2011-2012 and 2013-2014. ATPDs then were required to report the number of students who left the ATP for the following reasons: 1) student took a leave of absence; 2) student dropped the program due to non-academic reasons; or 3) student dropped the program due to academic reasons, between the 2011-2012 and 2013-2014 academic years. The three categories were selected to mimic the CAATE annual report for consistency and ATPD reporting familiarity. Once these values were reported, it was possible to determine ATP student retention.

A similar method was applied to determine ATPs’ graduation rate. Using the reported number of students who entered each year, while also considering the length in semesters of the
ATP, ATPDs reported the total number of ATSs who graduated between the 2013-2014 and 2016-2017 academic years, with 2016-2017 being anticipated number of graduates. This range was selected to consider all ATPs and the varying number of semesters that exist.

To better understand the general characteristics of the ATPs from this study, descriptive statistics such as level of program (undergraduate, graduate, or both) and ATP accreditation status can be found in Table 3. Other ATP characteristics such as accreditation classification are in Table 4. Summative program success metrics can be viewed in Table 5.

Table 3  
*Athletic Training Program Degree Types and Accreditation Category*

<table>
<thead>
<tr>
<th>Athletic Training Program Information</th>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional bachelor’s degree</td>
<td>35</td>
<td>77.0</td>
</tr>
<tr>
<td>Professional Master’s degree</td>
<td>9</td>
<td>18.8</td>
</tr>
<tr>
<td>Both</td>
<td>2</td>
<td>4.2</td>
</tr>
<tr>
<td>Accreditation Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active – in good standing</td>
<td>37</td>
<td>80.4</td>
</tr>
<tr>
<td>Probation</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Probation/voluntary withdrawal</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>Active – degree change pending</td>
<td>1</td>
<td>2.2</td>
</tr>
<tr>
<td>Degree change pending</td>
<td>1</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Table 4  
*Descriptive Characteristics of Athletic Training Programs and Program Outcomes*

<table>
<thead>
<tr>
<th>Program Characteristics</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of ATP in semesters</td>
<td>4-8</td>
<td>5.7</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Number of students entering ATP</td>
<td>0-56</td>
<td>13.9</td>
<td>1.27</td>
<td>1.27</td>
</tr>
<tr>
<td>ATSSs dropping AT for a leave of absence</td>
<td>0-3</td>
<td>0.1</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>ATSSs dropping AT for non-academic reasons</td>
<td>0-18</td>
<td>1.8</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>ATSSs dropping AT for academic reasons</td>
<td>0-20</td>
<td>1.0</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>ATSSs graduated</td>
<td>0-45</td>
<td>11.1</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>ATP BOC first-time pass rate</td>
<td>50-100</td>
<td>83.6</td>
<td>14.5</td>
<td>14.5</td>
</tr>
<tr>
<td>ATP BOC overall pass rate</td>
<td>50-100</td>
<td>92.7</td>
<td>10.1</td>
<td>10.1</td>
</tr>
<tr>
<td>Post-Graduate Employment</td>
<td>5-100</td>
<td>77.5</td>
<td>22.5</td>
<td>22.5</td>
</tr>
</tbody>
</table>
Table 5

*Overall Outcome Measures of Athletic Training Program Success*

<table>
<thead>
<tr>
<th>Program Metrics</th>
<th>%</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Retention Rate</td>
<td>79.0</td>
<td>0.2</td>
</tr>
<tr>
<td>BOC First-Time Pass Rate</td>
<td>83.6</td>
<td>14.5</td>
</tr>
<tr>
<td>Overall Graduation Rate</td>
<td>89.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Overall Post-Graduation Employment</td>
<td>77.5</td>
<td>22.5</td>
</tr>
</tbody>
</table>

**Instrument Internal Reliability**

To assess the reliability of the MLQ, Chronbach’s alpha coefficients of internal consistency were utilized. Table 6 presents the internal consistency coefficients from the three leadership styles and nine leadership behaviors.

Table 6

*Cronbach’s Alpha Scores for the MLQ*

<table>
<thead>
<tr>
<th>MLQ Variables</th>
<th>α</th>
<th># of items</th>
</tr>
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<tbody>
<tr>
<td>Leadership Styles</td>
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</tr>
<tr>
<td>Transactional</td>
<td>0.65</td>
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</tr>
<tr>
<td>Transformational</td>
<td>0.89</td>
<td>20</td>
</tr>
<tr>
<td>Passive/Avoidant</td>
<td>0.58</td>
<td>8</td>
</tr>
<tr>
<td>Transactional Behaviors</td>
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<td></td>
</tr>
<tr>
<td>Contingent Reward</td>
<td>0.53</td>
<td>4</td>
</tr>
<tr>
<td>Management-By-Exception (Active)</td>
<td>0.66</td>
<td>4</td>
</tr>
<tr>
<td>Transformational Behaviors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idealized Influence (Behaviors)</td>
<td>0.58</td>
<td>4</td>
</tr>
<tr>
<td>Idealized Influence (Attributes)</td>
<td>0.49</td>
<td>4</td>
</tr>
<tr>
<td>Inspirational Motivation</td>
<td>0.78</td>
<td>4</td>
</tr>
<tr>
<td>Intellectual Stimulation</td>
<td>0.83</td>
<td>4</td>
</tr>
<tr>
<td>Individualized Consideration</td>
<td>0.55</td>
<td>4</td>
</tr>
<tr>
<td>Passive/Avoidant Behaviors</td>
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<td></td>
</tr>
<tr>
<td>Management by Exception (Passive)</td>
<td>0.37</td>
<td>4</td>
</tr>
<tr>
<td>Laissez-Faire</td>
<td>0.34</td>
<td>4</td>
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</table>
Interferential Results by Research Question

Research Question 1

The first research question for this study examined ATPDs’ self-reported predominant leadership style as measured by the MLQ. While MLQ raw scores were reported, it is encouraged by the survey creators that raw scores for each leadership style be categorized within their respective percentiles for individual scores based on self-rating. After each participant’s raw scores were converted into percentage scores, these scores were transformed and recorded into different variables in SPSS. Then, ATPDs’ predominant leadership style could be analyzed. Of the 46 self-reported leadership styles, 22 ATPDs’ self-reported MLQ scores classified their leadership style to be more transformational, 11 ATPDs’ self-reported MLQ scores classified their leadership style to be more transactional, and 13 ATPDs’ self-reported MLQ scores classified their leadership style to be more passive/avoidant (see Table 7). To have a better understanding of the questions within the MLQ that evaluate each leadership style, see Appendix C.

Table 7

ATPDs Self-Reported Leadership Style

<table>
<thead>
<tr>
<th>Leadership Style</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional</td>
<td>11</td>
<td>23.9</td>
</tr>
<tr>
<td>Transformational</td>
<td>22</td>
<td>47.8</td>
</tr>
<tr>
<td>Passive/Avoidant</td>
<td>13</td>
<td>28.3</td>
</tr>
</tbody>
</table>
Research Question 2

The second research question from this study examined the relationship between ATPDs’ self-reported leadership style and ATP success. Success of the ATP was measured through four dependent variables: (1) percent of ATPs retention rate; (2) ATP percent first-time BOC pass rate; (3) percent ATP graduation rate; and (4) percent ATS post-graduation employment.

Correlation and multiple linear regression analyses were conducted to see if a statistically significant relationship existed between ATPDs’ self-reported leadership style and ATP success. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. Pallat (2016) asserts the first step in analyzing for multicollinearity is to verify that the independent variables have some relationship with the dependent variables by way of the coefficients table of Tolerance and Variance Inflation Factor (VIF). This value should not be below 0.3 and no higher than 0.7 (Pallat, 2016). Tolerance is an indicator of the amount of variability of the specified independent variable that is not explained by the other independent variables in the model by calculating 1-R squared. VIF is calculated by taking the inverse of the Tolerance value (Pallant, 2016). The results for these variables from this study fell within these limits to confirm no violation of multicollinearity.

Outliers, normality, linearity, homoscedasticity, and independence of residuals also were analyzed. This was accomplished through inspecting the Normal Probability Plot (P-P) of the Regression Standardized Residual and the Scatterplot. All four Normal P-P Plots showed a relatively straight diagonal line from the bottom, left to the top right. When checking for outliers, the Scatterplot should not have any cases more than 3.3 or less than -3.3 per Mertler and Vannatta (2013. This was the case for all four Scatterplots, indicating that these assumptions
were not violated and the regression model could continue to be evaluated. Table 8 presents the model summary of the leadership styles and program success metrics. Levine and Hullett (2002) assert that when the sample size is small, the Adjusted R Squared presents a more accurate value of the model. In this study, post-graduation employment showed the dependent variable that explained most of the regression model. To evaluate how much of the dependent variable is explained by the regression model, the value of R Squared is analyzed and transformed into a percentage.

Table 8

*Model Summary of ATPDs Self-Reported Leadership Style and ATP Success Measures*

<table>
<thead>
<tr>
<th>ATP Success Variables</th>
<th>R Squared</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP Retention Rate</td>
<td>0.06</td>
<td>0.04</td>
<td>0.17</td>
</tr>
<tr>
<td>ATP First-Time BOC Pass Rate</td>
<td>0.07</td>
<td>-0.02</td>
<td>14.57</td>
</tr>
<tr>
<td>ATP Graduation Rate</td>
<td>0.002</td>
<td>-0.02</td>
<td>0.38</td>
</tr>
<tr>
<td>ATS Post-Graduation Employment</td>
<td>0.10</td>
<td>0.08</td>
<td>21.56</td>
</tr>
</tbody>
</table>

When comparing the contribution of the independent variable, the Beta value indicates the strength of the contribution to the dependent variable (Pallet, 2016). The t-value represents the size of difference relative to variation in the sample, while the p-value indicates the statistical significance and the Part Correlation Squared indicates the contribution of the variable to the total R Squared. The leadership styles’ coefficients values are: student retention \((B = \ -0.24, \ t = \ -1.64, \ p = 0.11, \ \text{Part Correlation}^2 = 0.058)\), ATP first-time BOC pass rate \((B = -1.41, \ t = -0.56, \ p = 0.58, \ \text{Part Correlation}^2 = 0.01)\), graduate rate \((B = -0.02, \ t = -0.26, \ p = 0.80, \ \text{Part Correlation}^2 = 0.00)\), and post-graduation employment \((B = -8.30, \ t = -2.22, \ p = 0.03, \ \text{Part Correlation}^2 = 0.10)\). Of the four dependent variables, one showed a significant correlation.
The multiple regression model with the dependent variable of student retention produced $R^2 = 0.058$, $F(1, 44) = 2.69$, $p = 0.108$. The multiple regression model with the dependent variable of ATP first-time BOC pass rate produced $R^2 = 0.007$, $F(1, 44) = 0.301$, $p = 0.581$. The multiple regression model with the dependent variable of graduation rate produced $R^2 = 0.002$, $F(1, 44) = 0.067$, $p = 0.795$. The multiple regression model with the dependent variable of post-graduation ATS employment produced $R^2 = 0.101$, $F(1, 44) = 4.93$, $p = 0.032$. ATPDs’ self-reported leadership style did not show a statistically significantly relationship between three of the four ATP success metrics: (1) percent ATP retention rate; (2) ATP percent first-time BOC pass rate; or (3) percent ATP graduation rate. However, a statistically significant relationship was found between ATPDs’ self-reported leadership style and percent ATSs post-graduation employment.

It is important to note that significance testing is highly dependent on sample size (Levine & Hullett, 2002). Consequently, an estimate of the magnitude of the effect is needed to determine how strongly two or more variables are related. This estimate is reported as Eta Squared. A low value is 0.01, a medium value is 0.06, and a large value is 0.10 (Cohen, Cohen, West, & Aiken, 2003). Table 9 reports the Analysis of Variance (ANOVA), significance, percent of unique contribution (adjusted $R^2$), and effect size (Eta$^2$) for leadership style and student retention. Based on the findings, there was a medium effect with percent ATP first-time BOC pass rate, a medium effect for percent ATP retention rate, and a large effect for percent ATP post-graduation employment.
Table 9

ANOVA and Effect Size of ATP Retention Rate, First-Time BOC Pass Rate, Graduation Rate, and Post-Graduation Employment

<table>
<thead>
<tr>
<th>ATP Success Variables</th>
<th>F</th>
<th>Sig.</th>
<th>Adjusted R²</th>
<th>Eta²</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP Retention Rate</td>
<td>2.69</td>
<td>0.11</td>
<td>0.36</td>
<td>0.06</td>
</tr>
<tr>
<td>ATP First-Time BOC Pass Rate</td>
<td>0.31</td>
<td>0.58</td>
<td>0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>ATP Graduation Rate</td>
<td>0.07</td>
<td>0.80</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>ATS Post-Graduation Employment</td>
<td>4.93</td>
<td>0.03*</td>
<td>0.08</td>
<td>0.10</td>
</tr>
</tbody>
</table>

*p < .05

Summary

The purpose of this study was to examine the relationship between ATPDs’ self-reported leadership style and ATP success. A statistically significant relationship was not found for three of the four dependent variables; percent ATP student retention, ATP percent first-time BOC pass rate, and percent ATP graduation rate. A statistically significant relationship was found when examining the variables of ATS post-graduation employment. The following chapter discusses the findings of this study as well as additional, significant findings in the data that further depict the complexity of ATP success.
CHAPTER V: DISCUSSION, IMPLICATIONS, & CONCLUSIONS

Introduction

The purpose of this research was to examine the relationship between ATPDs’ self-reported leadership style and ATP success using multiple regression modeling to determine the significance of the relationship. The examination of this relationship was deemed important to conduct due to the thematic professional changes that have taken place in athletic training and the lack of information currently available exploring this relationship. Also, attempts to tie the current body of literature examining ATPDs’ educational and leadership histories and administrative preparation in combination with prior explanation of factors related to ATP success. Information is available related to ATPDs educational histories, leadership experience, and administrative preparation for the role, but has not been revisited in nearly a decade (Palmiere, 2005; Passauer, 2004; Peer & Rakich, 2000; Perkins & Judd, 2001; Perrin, 2005; Perrin & LePhart, 1988; Rankin & Ingersoll, 1995 Rich, 2009; Sciera, 1981). Additionally, the role and responsibilities of the role itself continuously are evolving, with little to no required qualifications of the individual in the position (Walters & Kutz, 2016; Waters, Stilter, & Cripps, 2017). While other medical professions are enhancing the leadership body of knowledge in their respective fields (Nursing, Physician Assistant, and Medicine), athletic training continues to place increased demands on the leaders of the education aspect of the profession (ATPDs) without having examined the current leadership practice or the relationship between leadership and ATP success.

Results and Discussion

In May 2014, the CAATE announced that institutions housing athletic training majors would have to seek Master’s level degree requirements by the year 2022 in order to remain an
accredited ATP. At the time of the study, more than 350 CAATE-accredited ATPs existed. During this time, ATPs were experiencing educational reform due to the impeding degree change requirement, some of which was too much change for ATPs to continue with their academic programming. Since the conclusion of the study, some ATPs no longer have accreditation, plan to continue to maintain accreditation, have voluntarily withdrawn accreditation, are not planning on remaining a major at their institution, or are amid a pending degree change. Additionally, the responsibilities placed on the ATPD continue to evolve to meet the new demands of the educational requirements. This reform, as well as pressures to meet academic demands of traditional faculty appointments of teaching, research, and service, has placed increasingly greater demands on the ATPD (Perkins & Judd, 2001; Walters & Kutz, 2016; Yellen, 2012; Zeust, 2003).

To successfully comply with institutional and CAATE accreditation Standards, ATPDs must provide leadership, “that inspires and allows faculty members to perform at optimal levels.” (Zeust, 2003, p. 58). The hope that is in turn, inspired faculty members will transcend their positive influence to the ATSs, who will then optimally perform. Although leadership has been recognized in athletic training as an essential component to professional success, “the development of management theory is an area that has been virtually ignored in athletic training programs.” (Rankin & Ingersoll, 1995, p. 1). For many ATPDs, formal education in management and leadership practice is nonexistent (Walters & Kutz, 2016; Zuest, 2003). Currently, professional development opportunities to learn more about leadership are slim in athletic training outside of the program curriculum.

Ray (2005) stated that organizational renewal and ATPs’ continuous quality improvement requires transformational leadership. Those that rely solely on transactional
leadership probably will not thrive during times of heightened educational reform, and ATPDs who possess passive/avoidant leadership most likely will face probationary sanctions or loss of CAATE accreditation.

Chapter III stated the anticipated sample size was 386 ATPDs. The analytic sample included 46 fully completed survey results for data analysis. Fifty-two ATPDs began the survey, however six did not complete portions that were necessary for analysis. As a result, the data collection process resulted in a 12 percent response rate. The percent of participation for online surveys has been noted to be around 30 percent to truly generalize findings, or to have enough statistical power to ensure data trustworthiness (Hamilton, 2003). Although this study did not achieve the desirable response rate the literature suggests, it still is important to consider the implications of the findings. Acknowledging the importance of trustworthy data via sample size, one also could argue that the analytics of linear multiple regression results also can be impacted by the number of participants, which is why adjusted $R^2$ was evaluated as well as effect size (Levine & Hullett, 2002). Although there was no statistical significance for three of the four dependent variables, the magnitude of effect is sufficient to report for multiple regression, which did in fact show large effects (Levine & Hullett, 2002).

Prior to conducting the necessary statistical test, the study investigated the reliability of the 45 questions within the MLQ. Reliability was presented through the measure of Cronbach’s alpha. The three leadership styles ranged from 0.58-0.89 Cronbach score. Nunnally (1978) recommends a minimum level of 0.7, however this value is heavily dependent on the number of items in the scale. Passive/avoidant had the lowest Cronbach alpha level and has the fewest number if items assessed within the MLQ. For this reason, it was acceptable to proceed with analysis knowing that the survey was a reliable instrument.
Research Question 1

Research question 1 asked, “Is there a statistically significant relationship between ATPDs’ leadership style (transactional, transformational, or passive/avoidant) and ATP success?” To answer the question, the study obtained descriptive statistics from the MLQ ratings of the three leadership styles to analyze the predominant leadership style among all ATPDs. The results indicated the prevalent leadership style of ATPDs is transformational, with 22 ATPDs falling within this category, across all 46 respondents. This conclusion was based on the transformation of raw MLQ scores into percentage scores as indicated within the MLQ manual. Transformational leadership styles were most frequently self-reported by ATPDs. Predominant transactional leadership style accounted for 11 ATPDs while predominant passive/avoidant leadership style accounted for 13 ATPDs.

Implications of leadership style. These findings of the descriptive statistics supported earlier research in athletic training. Laurent and Bradney (2007) examined athletic trainers’ (ATs) dominant leadership style in comparison to other medical professions. They discovered that AT practice more transformational leadership styles similarly to allied health professionals. Although this study surveys ATs, ATPDs could be grouped into this population since all ATPDs must also be certified ATs. More specifically to program directors’ leadership styles, Zuest (2003) investigated the applicability of Bass’s full-range leadership model to ATPDs. Zuest discovered that ATPDs possess more desirable leadership behaviors ($IM$, $IC$, $IS$, and $II-A/B$, and $CR$). Ultimately, ATPDs’ self-reported leadership style was consistent with Bass’s “optimal” profile ($I's > CR > MBE-A > MBE-P > LF$).

Transformational leadership is the ideal form of leadership in most organizations today (Yellen, 2012). This leadership style is ideal because transformational leaders possess the ability
to inspire followers to seek self-actualization through their work (Renda-Francis, 2012). The need for ATPDs to respond to the many changes in medical curriculum experience can be better achieved through transformational leadership. Other supporting literature also has stated program directors of any degree need to possess some transactional leadership to help followers achieve goals for which they will be rewarded (Bottery, 2001; Renda-Francis, 2012). Results from this study indicate 24 percent of the ATPDs who participated in the survey self-reported transactional form of leadership. Still, the practice of transformational leadership is greater and more frequent. Thus, the ideal leadership model in this context should involve a combination of transactional and transformational leadership. Although 48 percent of ATPDs self-reported transformational forms of leadership and 24 percent reported transactional, 28 percent reported passive/avoidant forms of leadership as more dominant. Passive/avoidant leadership also is referred to in the literature as “nonleadership” (Avolio et al., 2004).

**Research Question 2**

Research questions 2 asked, “Is there a statistically significant relationship between ATPDs’ self-reported leadership style and ATP success?” Four previously identified and measurable ATP outcomes were reported by ATPDs to analyze program success. Multiple regression analytic methods were used to explore this relationship. No statistically significant relationship was found between ATPDs’ self-reported leadership style and percent ATP retention rate, ATP percent first-time BOC pass rate, or percent ATP graduation rate. The regression model did indicate a statistically significant relationship between ATPD self-reported leadership style and percent ATS post-graduation employment. The significant relationship implies that the percent of ATSs finding employment in athletic training after graduation varies, as the leadership
style of the ATPDs varies. With little to no prior research examining this notion, it is important to re-examine the literature for rationalization.

**Implications of program success.** Accounting for the lack of statistical significance within three areas of program success (percent ATP retention rate, ATP percent first-time BOC pass rate, and percent ATP graduation rate) is difficult to justify. Earlier research is very limited on ATP retention and graduation rate. Often, researchers have examined variables impacting BOC pass rates.

**Retention rate.** Bowman et al. (2015) found that the interaction between ATSs and faculty and/or ATPDs, could be a source of frustration for ATSs. Undesirable interactions between ATSs and an ATPD have negative impacts on the ATSs’ outlook of the profession. Athletic Training Educators and ATPDs should be encouraging positive personal interactions with ATSs to successfully model the benefits of a career in athletic training (Bowman et al., 2015). In addition to fostering positive influential relationships with ATSs. Dodge et al. (2009) found that formalized mentorship programs also increased the likelihood of ATSs’ satisfaction within the profession. Electing to have a formal mentorship program fosters the importance of relationships and transformational like leadership characteristics as a structure within the program.

Three key factors that impact student retention have been identified in the literature as: (1) student characteristics such as education, personal, and demographic information (Hirschy et al., 2011); (2) program characteristics such as resources, facilities, structural/organizational arrangement, staff members, program admissions process (Dodge et al., 2009); and (3) interaction between program and student (i.e., student integration into the academic and social cultural experience of the academic programming) (Dodge et al., 2009). In general, positive
encounters between faculty and students were found to be “crucial to student retention” (Wells, 2007, p. 4).

Research specific to retention from the didactic perspective is less popular of a concept in athletic training. Rather, the intentional socialization process of ATS early in their clinical education has been a key focus (Dodge et al., 2009; Young et al., 2013). The idea of creating intentional socialization as part of the academic programming will enhance ATSs’ engagement and enthusiasm in becoming an athletic trainer.

Other literature states ATPDs should work to provide a stimulating learning atmosphere to help motivate students, which should help mitigate lower student retention (Bowman et al., 2015). “A rich history of success and consistent leadership can provide and ATP environment that fosters retention.” (Bowman et al., 2015, p. 5). This research supports the idea that leadership is important to retention, but not the relationship between ATPDs’ self-reported leadership style and ATP success.

The regression for retention rate accounted for 5.8 percent of the total explanation of the model. Prior to this study, the CAATE only evaluated this in the annual report. As of December 2017, the CAATE also requires ATPs to publicly advertise this information to current and perspective students (www.caate.net). It is possible that the limited power in this study could have attributed for the lack of statistical significance.

*Allied health national board exam pass rate.* Athletic training education culminates in a student’s preparation for a national board examination. Athletic training has a considerably lower national overall pass rate in comparison to other health professions (Erickson & Martin, 2000). In 2007, the BOC exam was reformed to meet new CAATE education *Standards*. Prior to 2007, research suggested that student demographics, grade point average, and previous exposure to
health care education were predictive measures of student success on the BOC (Middlemas, Manning, Gazzillo, & Young, 2001). To date, no research has exclusively examined the relationship between ATPDs’ self-reported leadership and BOC pass rates.

More contemporary approaches to examining relational factors to ATP first-time BOC pass rate relates to the order in which curricular content is delivered (Hungerford, 2012), the relationship between BOC success and length of athletic training clinical education (Little, 2012), an analysis of BOC first-time attempt pass rates in athletic training professional programs when compared to undergraduate program first-time pass rates (Phegley, 2014), and Bruce et al. (2016) prediction modeling for graduate ATPs. Overall, allied health professions have assessed factors impacting first-time national board pass rates, but none considered the leadership style of those educating students.

The regression for BOC pass rate accounted for 0.7 percent of the total explanation of the model. Although the CAATE places an emphasis on the ATP first-time pass rate, the strongest available evidence correlates to ATSs’ GPA as a predicting variable of BOC success. It is possible that the limited power in this study could have attributed for the lack of statistical significance.

**Graduation rate.** While a variety of factors have been found to influence students’ graduation likelihood, an equal number of factors have been presented regarding institutional leadership, and the types of environments that stimulate students to want to succeed. Within this study, there was not a statistically significant relationship between ATPDs’ self-reported leadership style and percent ATP graduation rate. Bowman et al. (2015) stated three themes emerged when examining factors of persistence among graduates of ATPs: (1) positive interactions with faculty, preceptors, and peers; (2) the environment of the ATP; and (3) intrinsic
motivation. This study gave insight into the importance that the developing relationships of ATSs within the ATP have on their persistence to graduate. Other emerging themes related to persistence to graduate include a positive environment, mentorship programs, and student passion (Dodge et al., 2009). In terms of measurable variables related to graduation rate, many of the existing theories are subjective and difficult to quantify. The regression for ATSs graduation rate accounted for 0.2 percent of the total explanation of the model. It is possible that the limited power in this study could have attributed for the lack of statistical significance.

**Exploratory Analysis and Other Considerations Related to Program Success**

The second research question examined the relationship between ATPD self-reported leadership style and ATP success, but included no extrapolation of covariates. Also, although ATPDs were asked to report the ATP accreditation status (active – in good standing, probation, probation/voluntary withdraw, active – progress report due soon, or degree change pending), this information was not initially correlated to the category of leadership ATPDs self-reported as more dominant. Bass’s full-range leadership model supports the notion that the more transformational an ATPD is, the more successful the ATP will have. Exceeding the expectations of accreditation or going the extra mile regularly, can be placed into the transformational leadership style category (Avolio et al., 2004). This model also supports the notion that a more dominate Transactional leadership style will also obtain ATP success by meeting the required Standards to remain CAATE accredited, but the more passive/avoidant an ATPD, the less likely the ATP is to meet CAATE accreditation Standards, or experience ATP success.

Taking Bass’s full-range leadership model into perspective, a closer examination was made of reported ATPs’ accreditation status and ATPDs’ reported predominant leadership style. The findings indicated 37 ATPs are “active – in good standing” (AGS) while others were
reported as “probation” (five); probation/voluntary withdrawal (P/VW) (two); progress report due soon (A-PRD) (one); and degree change pending (DCP) (one). The reason(s) for probation were not exclusively stated.

From there, a comparison between accreditation status and leadership style was conducted. Of the 37 AGS ATPs, 18 ATPDs reported dominant transformational leadership, eight ATPDs reported dominate transactional leadership, and 11 ATPDs reported dominant passive/avoidant leadership. Of the remaining seven ATPs on probation, four ATPDs reported dominant transformational leadership, one reported dominate transactional leadership, and two reported dominate passive avoidant leadership. Table 10 provides the description of ATP accreditation status and ATPD leadership style.

Table 10

<table>
<thead>
<tr>
<th>Program Accreditation Status</th>
<th>TF LDSP Style</th>
<th>%</th>
<th>TA LDSP Style</th>
<th>%</th>
<th>P/A. LDSP Style</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIG/A-DCG</td>
<td>18</td>
<td>39.0</td>
<td>8</td>
<td>17.40</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.35</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Probation/V</td>
<td>4</td>
<td>8.70</td>
<td>1</td>
<td>2.17</td>
<td>2</td>
<td>4.35</td>
</tr>
</tbody>
</table>

Note: TF = transformational
TA = Transactional
PA = Passive/Avoidant

These findings bring into question how more ATPs are AIG when the ATPD has reported a passive/avoidant leadership style than those who reported a TA leadership style. This contradicts a hypothetical analysis of these results based on Bass’s theoretical framework. Other potential reasoning for findings discussed later in this chapter include the complexity of program success and the copious number of variables that come into play, the idea that the metrics the CAATE uses in the annual report are not a true representation of program success, and the real possibility of self-report bias such as socially desirable responses (SDR), acquiescent responding
(AR), and extreme responding (ER). In other words, research participants tend to respond to self-reporting surveys in a way that makes them look as good as possible. Thus, they tend to under-report behaviors deemed inappropriate or less desirable (Rooney & Gottlieb. 2007).

I also decided to further explore other independent variables reported by ATPDs such as: (1) years of experience as an ATPD; (2) highest degree earned; and (3) level formal leadership training/education. When controlling for the independent variables of ATPDs’ highest degree earned (Master’s or doctorate), total years of experience as an ATPD, and formal leadership training/education, statistical significance was found within ATPDs’ highest degree earned.

The regression for ATPDs’ highest degree earned related to ATS retention rate accounted for 20 percent of the total explanation of the model $R^2 = 0.198$, $F(1, 44) = 10.833$, $p = 0.002$. The regression for ATPDs total years of experience in the position related to ATS retention rate accounted for 7 percent of the total explanation of the model $R^2 = 0.070$, $F(1, 44) = 3.31$, $p = 0.076$. The regression for ATPDs formal leadership training/education related to ATS retention rate accounted for 4 percent of the total explanation of the model $R^2 = 0.043$, $F(1, 44) = 1.98$, $p = 0.166$.

The regression for ATPDs’ highest degree earned related to ATP first-time BOC pass rate accounted for 8 percent of the total explanation of the model $R^2 = 0.080$, $F(1, 44) = 4.90$, $p = 0.032$. The regression for ATPDs’ total years of experience in the position related to ATP first-time BOC pass rate accounted for less than 1 percent of the total explanation of the model $R^2 = 0.008$, $F(1, 44) = 0.36$, $p = 0.551$. The regression for ATPDs’ formal leadership training/education as it relates to ATP first-time BOC pass rate accounted for 7 percent of the total explanation of the model $R^2 = 0.072$, $F(1, 44) = 3.43$, $p = 0.07$. 
The regression for ATPDs’ highest degree earned as it relates to ATP graduation rate accounted for 6 percent of the total explanation of the model $R^2 = 0.062$, $F(1, 44) = 4.00$, $p = 0.052$. The regression for ATPDs’ total years of experience in the position as it relates to ATP graduation rate accounted for 1 percent of the total explanation of the model $R^2 = 0.01$, $F(1, 44) = 0.36$, $p = 0.551$. The regression for ATPDs’ formal leadership training/education as it relates to ATP graduation rate accounted for 5 percent of the total explanation of the model $R^2 = 0.05$, $F(1, 44) = 3.43$, $p = 0.071$. Table 11 provides the multiple regression statistics on this exploratory analysis.

Table 11

ANOVA and Effect Size of Years of ATPD Experience, Highest Degree Earned, and Years of Leadership Experience

<table>
<thead>
<tr>
<th>ATPD Descriptive Variables &amp; ATP Success Metric</th>
<th>Sig.</th>
<th>Adjusted $R^2$</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of ATPD experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention Rate</td>
<td>0.17</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>First-time BOC Pass Rate</td>
<td>0.55</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>0.53</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Post-Graduation Employment</td>
<td>0.17</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>Highest degree earned</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention Rate</td>
<td>0.00*</td>
<td>0.18</td>
<td>0.20</td>
</tr>
<tr>
<td>First-time BOC Pass Rate</td>
<td>0.03*</td>
<td>0.08</td>
<td>0.10</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>0.05*</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Post-Graduation Employment</td>
<td>0.00*</td>
<td>0.16</td>
<td>0.18</td>
</tr>
<tr>
<td>Years of LDSHP ex./edu</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retention Rate</td>
<td>0.17</td>
<td>0.02</td>
<td>0.04</td>
</tr>
<tr>
<td>First-time BOC Pass Rate</td>
<td>0.07</td>
<td>0.05</td>
<td>0.07</td>
</tr>
<tr>
<td>Graduation Rate</td>
<td>0.53</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Post-Graduation Employment</td>
<td>0.19</td>
<td>0.02</td>
<td>0.04</td>
</tr>
</tbody>
</table>

*p < .05

The selection of the additional three independent variables stems from earlier research on ATPDs’ educational histories, how experience versus education impact ATPDs’ perception of job readiness, and conversations happening now, within the profession, regarding changes of

Roughly half of ATPDs possessed a terminal degree and less than half reported any type of formal leadership education as a part of their education. The majority (85%) of ATPDs reported their highest degree earned prepared them “somewhat” for their role as an ATPD (Walters & Kutz, 2016). Bowman et al. (2015) reported the importance of a rich history of strong leadership as an important factor to student retention.

When examining the exploratory independent variables, we can hypothesize a few concepts as well as tie the ideas back to the literature. In terms of ATPDs’ highest degree earned, we can conceptualize that while furthering one’s education to become an ATPD seems essential, it may be more advantageous for ATPDs to obtain a terminal degree focused on organizational development and/or leadership to tap into their more transformational traits while being more attune with the theoretical implications of their leadership actions. Currently, ATPDs’ terminal degrees vary in concentration (biomechanics, curriculum and instruction, exercise physiology, etc.). Although the newest version of CAATE Standards has not been officially released, one of the proposed guidelines included the requirement that ATPDs must have eight or more years’ experience as a program director or similar position, and possess a terminal degree.

ATPDs’ total years of experience have been another area where the CAATE has explored and considered important in the hiring and success of this position. As previously mentioned, the idea of setting an experience requirement for ATPDs has been discussed by accrediting entities. Walters and Kutz (2016) found that ATPDs believed personal experiences were more helpful that
formal education to succeeding in their role, than formal education. The measurable level of leadership experience, training, or education was the final independent variable found to show a significant relationship between ATPDs’ self-reported leadership style and percent ATP retention rate, ATP percent first-time BOC pass rate, and percent ATP graduation rate. The educational history and preparedness of ATPDs has been examined by several researchers (Leard et al., 1991; Leon et al., 2008; Odia & Doherty-Restrepo, 2012; Palmiere, 2005; Peer & Rakich, 2000; Perkins & Judd, 2001; Perrin, 2005; Ray, 2005; Rich, 2009, Sciera, 1981; Walters & Kutz, 2016; Yellen, 2012; Zuest, 2003). For the past 16 years, research consistently has found that leadership and its practice is an integral component of overall student or ATP success. All the researchers have found common ground on the notion that leadership experience possessed by ATPDs has a direct impact on their ability to be a successful and effective leader, yet little to no intentional leadership education is provided within their education preparation.

Only recently has the CAATE and the NATA recognized the lack of formalized leadership content provided to athletic trainers (and ATPDs) outside of organic experiences, or the initiative of the individual to become actively involved within the various organizations. Even then, the leadership training is more authentic than formalized. By possessing conceptual knowledge of the leadership you practice, you are more capable of synthesizing the implications you have in your environment because you have a foundational understanding of applying theory into practice (Walters & Kutz, 2016).

**Implications for Practice**

The conclusions in this study should be considered by those who study leadership as well as those who wish to better understand how leadership style relates to ATP success. Also, several areas of future research are recommended to advance the body of knowledge regarding ATPDs’
leadership style. Many other studies have examined leadership in athletic training and education (Kutz, 2008; Kutz 2010; Kutz, 2012; Laurent & Bradney, 2007; Odai & Doherty-Restrepo, 2012; Nellis, 1994; Yellen, 2012, Zuest, 2003) or variables impacting the four program success metrics in this study (Bowman et al., 2015; Bruce et al., 2016; Dodge et al., 2009). However, none have determined differences of leadership styles practiced by ATPDs and their relationship to ATP success. This discovery was highly needed since Odai and Doherty-Restrepo (2012), Yellen (2012), and Zuest (2003) have discovered that ATPDs need to possess a wide range of leadership skills such as communication, problem solving, conflict resolution, cultural-responsiveness management, and mentoring to lead ATPs. Furthermore, Leone, et al. (2008), Passauer (2004), Palmieri (2005) Perrin (2005), Rich (2009), Yellen (2012), and Walters eta al. (2017) all have discovered through their research that ATPDs report the position to show a gradual increase in responsibility. The increase of responsibilities for accreditation purposes combined with institutional standards for faculty appointments requires an individual within an ATPD position to have a sound understanding of the implications leadership has on program success.

Transactional, transformational, and passive/avoidant leadership styles have their own strengths and weaknesses when it comes to the impact they have on an environment. This study was significant in finding ATPDs’ predominant leadership style and the results aligned well with previous research. The study indicated no significant relationship existed between ATPDs’ self-reported leadership style and percent ATP retention rate, ATP percent first-time BOC pass rate, or percent ATP graduation rate. However, a statistically significant relationship was found with the variable of percent ATS post-graduation employment.

An ancillary finding of this study revealed that only half of the participating ATPDs reported having any prior leadership training/education. Yellen (2012) identified ATPDs as the
leader within the ATP, which should influence the desirability of formal leadership training/education for ATPDs. Although this study could be underpowered due to the response rate, this finding is consistent with a prior study by Walters and Kutz (2016). Less than half of the ATPD participants in their study reported no formal leadership training/education. Furthermore, 75 percent of the ATPD participants reported being “highly interested” in participating in formalized leadership training/education.

Examining leadership styles of ATPDs and ATP success variables provides a means to understand how the profession of athletic training and education might address issues. The quantitative analysis provides valuable information to educators and enhances their awareness for current and future leadership practice. It has become evident through this research that developing leadership traits that will result in the success of the program are possible when we can become more aware of our current leadership practice.

Another aspect to consider through this analysis is the idea that program success is complex. The CAATE exclusively evaluates two of the four dependent variables of program success within this study, but also collects year data on the number of students who enter and graduate each year. In 2017, the CAATE mandated that ATPs publicly advertise program retention to increase program transparency. The lack of statistical significance found in this study could imply that more variables must be considered when evaluating program success beyond the measures the CAATE believe to components of ATP success. Where statistical significance was found implies that the interactions ATSs have with ATPDs are impactful. Traditionally, ATPDs are sought after as a reference, or as a resource to ATSs in being referred for jobs upon graduation. If the ATS-to-ATPDs relationship is overly superficial or non-existent due to ATPDs’ leadership style, ATSs may encounter difficulties finding post-graduation employment.
Future Research

Several recommendations for future research have been established after the completion of this study. First would be to conduct the same study utilizing an incentive to participate in the study to increase response rate. It would also be advantageous to request the participation of all other faculty working in the ATP, such as the clinical education coordinator. This would offer a more accurate depiction of leadership practice of the ATPD from the perspective of followers. Comparing self-reported leadership styles to followers’ (or faculty) perceptions of leadership practices would provide an interesting point of evaluation. In addition to faculty perceptions of ATPDs’ leadership style, students’ perceptions would be another point to explore. Since all four of the dependent variables of program success are synonymous with student outcomes, ATSs’ perception of ATPDs leadership may have legitimate implications related to program success. The ability to evaluate the aspects of leadership outcomes (*Extra Effort, Satisfaction, and Effectiveness*) within the MLQ could to be more accurately analyzed in correspondence with follower (faculty and student perceptions of leadership) perceptions of leadership. Knowing how quantitative analytics of program success relate to ATPDs’ leadership style, it would also be beneficial to qualitatively address why certain MLQ responses were scored higher or lower, or ask ATPDs to provide examples of how they practice certain leadership behaviors with each leadership style. Lastly, repeating this research over the course of an entire cohort entering and existing an ATP could provide detailed information on areas of strengths and weaknesses of ATPDs’ leadership style. This information could validate the importance of formal leadership training/education necessary to be an ATPD or create professional development opportunities centered on leadership development for ATPDs.
Conclusions

Leadership is important in athletic training (Kutz, 2010; Kutz 2012; Leard et al., 1991; Leone et al., 2008; Nellis, 1994; Palmieri, 2005; Passauer, 2004; Odai & Doherty-Restrepo, 2012; Perkins & Judd, 2001, Walters & Kutz, 2016; Yellen, 2012). It also has been established that ATPDs’ roles and responsibilities have increased exponentially over the past two decades with little to no alteration to the expectations of the traditional faculty appointment in higher education (Leard et al., 1991, Leone et al., 2008; Perkins & Judd, 2001; Zeust, 2003). With the expansion of this role, knowledge of leadership is important to inform the ATP outcomes. The more an ATPD knows about various leadership styles, the more inclined they will be to use transformational leadership styles to enhance program success (Zeust, 2003). Ray (2005) added that transformational or transactional leadership alone is not ideal leadership practice for any setting. However, passive/avoidant leadership is not desirable in any setting for any purpose. Passive/avoidant leadership is defined as non-leadership practice (Avolio et al., 2004). In general, without leadership, no action or progress can take place (Hershey et al., 2001). Interestingly enough, 24 percent of ATPDs who participated in this survey self-reported passive/avoidant leadership as their predominant style.

ATPDs’ predominant self-reported leadership style is transformational. This finding is consistent with other literature related to common leadership styles in athletic training (Laurent and Bradney, 2007). Leadership styles of ATPDs were not found to have a statistically significant relationship when examining percent ATP retention rate, ATP percent first-time BOC pass rate, and percent ATP graduation rate. Self-reported leadership styles of ATPDs did have a statistically significant relationship when examining ATSs’ post-graduation employment. This
significant finding builds upon the growing research concerning the link between leadership style and ATP success.

Recently, ATPDs have been increasingly concerned with program performance (i.e., success) due to the degree change requirements taking place in the next five years. For ATPs to seek continuing CAATE accreditation, educational and clinical rigor is assumed to have to increase with a graduate program. The increase in standards could place more responsibilities closely associated to leadership practice on the ATPD. The link found between ATPDs’ leadership style and ATP success plays an important, convincing defense as we research, educate, and evaluate future leaders in athletic training. These findings have created a starting point for leaders in athletic training to examine how we have led in the past, how this can impact the future and where the profession wants to position itself through this next phase of professional reform.

Change takes place at an extremely fast pace in health care and health care education (Kutz, 2012). If we can recognize our leadership practice and how it informs our environment, then we can know the level of influence we have on advancing the profession. Like many other health care professions, athletic training is experiencing a period of evolutionary growth in the way we view the necessary educational requirements for future trainers. These changes also stem from the competitive nature of similar allied health professions, which also face more demands such as patient needs and federal/state regulations. Effective leadership will be essential for ATPs, who will be undergoing curricular reform to remain CAATE-accredited. Furthermore, ATPs will need leaders who can navigate that change.
REFERENCES


APPENDIX A: COMMON ATHLETIC TRAINING ACROYNMS

The National Athletic Trainers’ Association (NATA)

The Board of Certification (BOC)

The Commission on Accreditation of Athletic Training Education (CAATE)

National Athletic Trainers Association Research and Education Foundation (NATAF)

Strategic Alliance – The NATA, BOC, CAATE, NATAF
APPENDIX B: HUMAN SUBJECTS REVIEW BOARD APPROVAL

BGSU
BOWLING GREEN STATE UNIVERSITY
Office of Research Compliance

DATE: November 17, 2016
TO: Elizabeth Walters
FROM: Bowling Green State University Human Subjects Review Board
PROJECT TITLE: [983333-2] Athletic Training Program Directors Leadership Style and Their Impact on Program Success
SUBMISSION TYPE: Revision
ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: November 15, 2016
REVIEW CATEGORY: Exemption category #2

Thank you for your submission of Revision materials for this project. The Bowling Green State University Human Subjects Review Board has determined this project is exempt from IRB review according to federal regulations AND that the proposed research has met the principles outlined in the Belmont Report. You may now begin the research activities.

Note that an amendment may not be made to exempt research because of the possibility that proposed changes may change the research in such a way that it is no longer meets the criteria for exemption. A new application must be submitted and reviewed prior to modifying the research activity, unless the researcher believes that the change must be made to prevent harm to participants. In these cases, the Office of Research Compliance must be notified as soon as practicable.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact Kristin Hagemyer at 419-372-7716 or khagemy@bgsu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.
APPENDIX C: PARTICIPANT CONSENT FORM & SAMPLE MULTIFACTOR LEADERSHIP QUESTIONNAIRE

Investigator: Elizabeth J. Walters  Phone: 419-202-5917  Doctoral Student, Leadership Studies
Project Title: ATHLETIC TRAINING PROGRAM DIRECTORS' LEADERSHIP STYLE AND THEIR IMPACT ON PROGRAM SUCCESS

Purpose: You are invited to participate in a research study to determine Athletic Training Program Directors' perception of personal leadership style and the relationship between leadership styles and program success. There is minimal research on leadership in athletic training. The purpose of this study is to begin to investigate the importance of leadership styles for program success in athletic training.

Procedures: You are being asked to complete the survey to the best of your ability. You will be asked to answer different components of a survey of leadership styles, the Multifactor Leadership Questionnaire (MLQ), along with questions about programmatic outcome metrics. The survey will conclude with demographic questions. The MLQ has demonstrated validity, reliability, and is one of the most commonly used leadership questionnaires available. To make the programmatic metric reporting efficient, please have your BOC Pass Rate Table readily available as well as eACCRED open. The survey should take no more than 15-25 minutes to complete. All reported information will be kept confidential. Only the PI and methodologist working on this study have access to the results, which will also be password protected. When reporting findings, all identifying information will be removed and program success outcomes will only be reported in aggregate (i.e., no individual program outcomes will be reported or shared). Once completed be sure to clear your browser cache and page history to ensure that your information is secure.

Benefits: You will be helping to further research in athletic training related to leadership and Athletic Training Program success. There are no monetary or extra benefits to participating in this study.

Voluntary: Your participation in this study is completely voluntary and you may withdraw at any time. You may choose to end the survey at any time. To do so, simply close your browser to exit from Qualtrics. Deciding to participate or not will not affect your professional status within your organization.

Risks: The risks associated with this study are no greater than those encountered in normal daily life. Anonymity: Your participation in this survey will remain confidential. Once submitted, the surveys will be sent directly to the Qualtrics database. The information will be safeguarded with password protection.

Contact Information: If you have any questions or comments about this study, you can contact Elizabeth Walters at 419-202-5917 (edahlma@bgsu.edu). You may also contact Dr. Chris Willis, the PI's Research Advisor at (419) 372-7401 (wchris@bgsu.edu), as well as the Human Subjects Review Board Chair at 419-372-7716 (hsrc@bgsu.edu), if you have any questions about your rights as a participant in this research. Your involvement in the research study or opting out of participation will not affect your relationship with BGSU. To participate in the survey, click the "Yes, I would like to participate in the survey" option below. By doing so, you are providing your consent that you understand your options to participate in this study. If at any time you choose to end the survey, simply close your browser. If you would not like to participate, please select "No, I do not wish to participate in the survey" option below. Thank you for your time.
- Yes, I would like to participate in the survey
- No, I do not wish to participate in the survey

Please select the type of ATP for which you currently function as the Athletic Training Program Director (ATPD) (select all that apply).
- Professional Bachelors in AT
- Professional Masters in AT
- Post-Professional Masters in AT
- Post-Professional Doctorate in AT

Please answer the Multifactor Leadership Questionnaire (MLQ) as honestly and truthfully as possible.

<table>
<thead>
<tr>
<th></th>
<th>1. I provide others with assistance in exchange for their efforts <em>(CR behavior)</em></th>
<th>2. I re-examine critical assumptions to question whether they are appropriate <em>(IS behavior)</em></th>
<th>3. I fail to interfere until problems become serious <em>(MBE-P behavior)</em></th>
<th>4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards <em>(MBE-A behavior)</em></th>
<th>5. I avoid getting involved when important issues arise <em>(LF behavior)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all (0)</td>
<td>Once in a while (1)</td>
<td>Sometimes (2)</td>
<td>Fairly often (3)</td>
<td>Frequently, if not always (4)</td>
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<tr>
<td></td>
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<td>○</td>
</tr>
</tbody>
</table>
Please complete the following table related to programmatic metrics by accessing your eACCRED account and selecting each cohort being addressed.

| How many students entered your Athletic Training (AT) Program in the following years? | 2011 | 2012 | 2013 |
| How many students dropped AT as their major due to a leave of absence? |  |  |  |
| How many students dropped AT as their major due to issues other than academic performance? |  |  |  |
| How many students dropped AT as their major due to academic performance (including dismissal)? |  |  |  |
| How many students dropped AT as their major due to transferring out? |  |  |  |

Complete the following table regarding student graduation:

| Enter the number of students who graduated from each cohort | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 (anticipated) |

According to your institution's BOC Pass Rate Exam Table what is your current 3-year aggregate for percentage of students who successfully passed the BOC on their first attempt? Please enter a number between 0 and 100 in the text box below.

According to your institution's BOC Pass Rate Exam Table what is your current 3-year aggregate for percentage of students who successfully passed the BOC regardless of number of attempts? Please enter a number between 0 and 100 in the text box below.
According to your current institutions 2016 CAATE annual report (section V) what percentage of your most recent AT graduates are employed in an AT-related position (this also includes GA positions, internships, graduate school in AT or other professions)? Please enter a number between 0 and 100 in the text box below.

What is, or what will your program status be categorized as, from your 2016 CAATE annual report?
- Active - in good standing
- Active - progress report due soon
- Probation
- Probation/Voluntary Withdraw
- Voluntarily withdrawing accreditation
- Degree change pending
- Seeking Accreditation

Please select your highest degree earned.
- Bachelors
- MS
- MEd
- MA
- MSE
- MSED
- MAT
- Other Masters degree (please specify) ____________________
- PhD
- EdD
- DPE
- DPT
- DHSC
- DAT
- DA
- DSC
- MD/DO
- Other Doctoral degree (please specify) ____________________

Specifically, what area of concentration, if any, is your highest degree awarded in? (example: M.S. - Athletic Training with a concentration in Rehabilitative Science or Ph.D. in Exercise Physiology).

Please provide the total number of years you have experience as an Athletic Training Program Director.
Please provide the total number of years you have been the Athletic Training Program Director at your current institution.

Have you completed any post-professional/formal academic coursework related to leadership? (Examples of courses, but not limited to: management and leadership concepts in behavioral science, leadership theory, leadership and policy in healthcare, leadership and ethics, organizational change and behavior).

☐ Yes
☐ No

Q17 If you have completed post-professional/formal academic coursework related to leadership, please indicate the number of credit hours.

Q18 Have you completed any continuing education activities pertaining to leadership? Specifically have you received CEU credits pertaining to leadership (e.g. leadership conferences, lectures facilitated by a leadership content expert, home study courses, workshops, etc.)?

☐ Yes
☐ No

Q19 If you have completed any continuing education activities pertaining to leadership, please indicate the type and number of contact hours.

_____ Conference
_____ Workshop
_____ Lecture
_____ Home Study Course

What gender(s) do you identify with? Select all that apply.

☐ Woman
☐ Man
☐ Transgender/Gender Non-Conforming
☐ Not listed (please specify) ____________________
☐ Do not wish to disclose

What race/ethnicity do you identify with? Select all that apply.

☐ Hispanic/Latino of any race (1)
☐ American Indian or Alaskan Native, not Hispanic/Latino (2)
☐ Asian, not Hispanic/Latino (3)
☐ Black or African American, not Hispanic/Latino (4)
☐ Native Hawaiian or Other Pacific Islander, not Hispanic/Latino (5)
☐ White, not Hispanic/Latino (6)
☐ Do not wish to disclose (7)
☐ Not listed (please specify) (8) ____________________
If you have anything you would like to add in regard to your perception of how leadership impacts programmatic success, leadership importance in AT, or any other ideas you had while completing this survey related to the issue of leadership in AT, please use the space below. (250 word max).

If you would like to take the opportunity to describe your career path into becoming an Athletic Training Program Director (ATPD), please provide your response in the text box below. A brief occupational timeline or a summary of the occupational avenue that put you in a position to be an ATPD is acceptable. (250 word max).

If you would like to take the opportunity to discuss how you would describe the way in which your formal education, personal experiences, or both have helped you function in the role as an ATPD, and if you place more value on either formal education or personal experiences impacting your leadership and management practice as an ATPD, please provide your response in the text box below. (250 word max).
At this time, please provide your thoughts on the level of burnout (if any) as an ATPD and why you think that does or does not occur. (250 word max).

Is being an ATPD your ultimate career goal, or do you see yourself taking advantage of other career opportunities? Please select an option.

☐ Yes, I intend to be an ATPD for as long as my career allows

☐ No, I do not intend to be an ATPD for the remainder of my career, but I do intend to remain in the profession in some capacity

☐ No, I do not intend to be an ATPD for the remainder of my career. I also see myself taking advantage of career opportunities outside of AT

☐ Option not listed. Please provide a brief description of your anticipated career options.

____________________
## APPENDIX D: MLQ MANUAL PERCENTILE LEADERSHIP SCORES

<table>
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<tr>
<th>Leadership style</th>
<th>Dimensions</th>
<th>Abbreviation</th>
<th>No. items/questions</th>
<th>Questions</th>
</tr>
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<tr>
<td>Transformational</td>
<td>Intellectual stimulation</td>
<td>IS</td>
<td>4</td>
<td>2, 8, 30, 32</td>
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<tr>
<td></td>
<td>Idealized influence (behavior)</td>
<td>II(B)</td>
<td>4</td>
<td>6, 14, 23, 34</td>
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<tr>
<td></td>
<td>Idealized influence (attributed)</td>
<td>II(A)</td>
<td>4</td>
<td>10, 18, 21, 25</td>
</tr>
<tr>
<td></td>
<td>Inspirational motivation</td>
<td>IM</td>
<td>4</td>
<td>9, 13, 26, 36</td>
</tr>
<tr>
<td></td>
<td>Individual consideration</td>
<td>IC</td>
<td>4</td>
<td>15, 19, 29, 31</td>
</tr>
<tr>
<td>Transactional</td>
<td>Contingent reward</td>
<td>CR</td>
<td>4</td>
<td>1, 11, 16, 35</td>
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<td>Management-by exception (active)</td>
<td>MBEA</td>
<td>4</td>
<td>4, 22, 24, 27</td>
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<tr>
<td>Nontransactional</td>
<td>Management-by-exception (passive)</td>
<td>MBEP</td>
<td>4</td>
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<td>Laissez-faire</td>
<td>LF</td>
<td>4</td>
<td>5, 7, 28, 33</td>
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<tr>
<td>Level of success</td>
<td>Extra effort</td>
<td>EE</td>
<td>3</td>
<td>39, 42, 44</td>
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<td></td>
<td>Satisfaction</td>
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